

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



Pacific Gas & Electric Company
ELC (Corp ID 39)
Status of Advice Letter 6276E
As of August 23, 2021

Subject: Spring 2021 Bundled RPS Energy Sale Solicitation; Power Purchase and Sale Agreement Between Pacific Gas and Electric Company and Multiple Buyers

Division Assigned: Energy

Date Filed: 07-29-2021

Date to Calendar: 08-04-2021

Authorizing Documents: None

Disposition:	Accepted
Effective Date:	07-30-2021

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- Disposition of Filing (Accepted, Rejected, Withdrawn, etc.)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
- Other Miscellaneous Information (e.g., Resolution, if applicable, etc.)

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.

All inquiries to the California Public Utilities Commission on the status of your Advice Letter Filing will be answered by Energy Division staff based on the information contained in the Energy Division's PAL database from which the AL status certificate is generated. If you have any questions on this matter please contact the:

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

July 29, 2021

Advice 6276-E
(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

Subject Spring 2021 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 three 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 three counterparties.

These Transactions are consistent with the sales strategy approved as part of PG&E’s 2020 RPS Procurement Plan (“2020 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 three Transactions resulting from PG&E’s Spring 2021 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 would qualify as Portfolio Content Category (“PCC”) 0 or 1 to PG&E and PCC 1 upon

¹ Final 2020 PG&E Renewable Energy Procurement Plan, filed in R.18-07-003 on February 19, 2021.

resale.² The Transaction must receive final, nonappealable Commission approval before energy deliveries and the transfer of RECs to Buyers may begin under the PPSAs.

1. Counterparty(s) / Buyer(s)

The counterparties associated with sales resulting from the Solicitation include:

- Marin Clean Energy (“MCE”)
 - MCE is a CCA serving residential and business customers in Marin County.
- East Bay Community Energy Authority (“EBCE”)
 - EBCE is a CCA serving residential and business customers in Alameda 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. PG&E is aware that MCE and EBCE are members of California Community Power, a Joint Powers Agency comprised of eight CCAs. PG&E 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)
Marin Clean Energy (“MCE”)	330,000
East Bay Community Energy Authority (“EBCE”)	460,000
BMW of North America, LLC (“BMWNA”)	11,672 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 (unit-specific).

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 (i.e., 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 facility and is estimated to be 11,672 MWh for 2022. 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 2021 Bundled RPS Energy Sale Solicitation. The solicitation bids were evaluated and executed in accordance with the RPS Sales Framework ("Sales Framework") approved as Appendix H to PG&E's 2020 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)	Multiple Projects (See Appendix H1 – Facility List)	Single Project (See Appendix H2 – Facility List)
Buyer / Counterparty	MCE	EBCE	BMWNA
Technology	solar photovoltaic ("PV"), wind, and small hydro renewable technologies	solar PV, wind, and small hydro renewable technologies	biomethane
Capacity (MW) ⁴	Multiple Projects (See Appendix H1 – Facility List)	Multiple Projects (See Appendix H1 – Facility List)	Single Project (See Appendix H2 – Facility List)
Expected Generation (GWh/Year)	PG&E will sell 30,000 MWh in 2021 and 300,000 MWh in 2022 to be filled from any of the projects on Appendix H1 – Facility List	PG&E will sell 60,000 MWh in 2021 and 400,000 MWh in 2022 to be filled from any of the projects on Appendix H1 – Facility List	PG&E will sell approximately 11,672 MWh in 2021 to be filled from the single project on Appendix H2 – Facility List
Delivery Term (Years)	2021, 2022	2021, 2022	2022

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

Location (city and state)	Multiple Projects (See Appendix H1 – Facility List)	Multiple Projects (See Appendix H1 – Facility List)	Single Project (See Appendix H2 – Facility List)
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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 Renewable Net Short (“RNS”),⁵ 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

⁵ Final 2020 PG&E Renewable Energy Procurement Plan, filed in R.18-07-003 on February 19, 2021.

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: Marin Clean Energy (MCE)	Confidential
D2	Contract Summary: East Bay Community Energy Authority (EBCE)	Confidential
D3	Contract Summary: BMW of North America (BMWNA)	Confidential
E1	Comparison of Contract with Utility's Pro Forma Agreement: MCE	Confidential
E2	Comparison of Contract with Utility's Pro Forma Agreement: EBCE	Confidential
E3	Comparison of Contract with Utility's Pro Forma Agreement: BMWNA	Confidential
F1	Sales Agreement: MCE	Confidential
F2	Sales Agreement: EBCE	Confidential
F3	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: MCE, EBCE	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 2020 RPS Plan was approved in Decision ("D.") 21-01-015 on January 14, 2021, and the final, conforming version of the 2020 RPS Plan was filed in Rulemaking 18-17-003 on February 19, 2021. PG&E complied with all procedural requirements with regard to the submittal of its 2020 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 2020 RPS Plan, PG&E demonstrated that it was well-positioned to meet its RPS compliance requirements through Compliance Period 6 (2028-2030). 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. In PG&E's RNS position, presented in Appendix G1 and G2, PG&E demonstrates that it doesn't expect to have an incremental RPS physical need until after 2030. These calculations demonstrate that the Transactions 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 2021 and 2022. As described above, PG&E's 2020 RPS Plan concluded that PG&E is well-positioned to meet its near-term RPS compliance requirements until after 2030. In light of its long position with respect to RPS targets, PG&E developed the Sales Framework, filed as Appendix H in the approved 2020 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 2020 RPS Plan that it expected to sell short-term, bundled RPS volumes in 2021.

As further described in Confidential Appendix A, the Transactions are consistent with the 2020 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 2020 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.21-01-015, Ordering Paragraph 3, which states:

PG&E is authorized to conduct a minimum of two solicitations for short term sales of five years or less of sales of RPS volumes if the sales agreement for any such

sale is executed before the adoption of a subsequent RPS Plan. Deliveries may commence at any time after the Commission approves the contract and continue until the contract's term expiration. PG&E must seek Commission approval of short term sales resulting from a solicitation or any bilateral transaction that both utilizes the *pro forma* sales agreement submitted with its 2020 RPS Procurement Plan, showing any necessary modifications, and is executed after PG&E receives bids for a sales solicitation resulting from its 2020 RPS Procurement Plan. Executions and requests for approval must be 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 3. First, the Transactions are short-term, meaning five years or less. Second, PG&E executed each Transaction during the timeframe covered by the 2020 RPS Plan and prior to the Commission issuing a decision on the 2021 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 Transactions.

Consistent with the 2020 RPS Plan, the Transactions used PG&E's *pro forma* Sales Agreement and PG&E is providing comparisons of each 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 2020 RPS Plan and D. 21-01-015.

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 II.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 2020 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. Each 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 Least Cost Best Fit ("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	MCE	EBCE	BMWNA
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Contract Reference		Section	Page Number	Section	Page Number	Section	Page Number
Non-Modifiable Term	STC 1: CPUC Approval	2.12	6	2.12	6	2.12	5
	STC 17: Applicable Law	8.3(b)	15	8.3(b)	15	8.2(b)	14
	STC REC 1: Transfer of RECs	6.1(b)	12	6.1(b)	13	6.1(b)	12
	STC REC 2: WREGIS Tracking of RECs	6.1(c)	13	6.1(c)	13	6.1(c)	12
	STC REC 3: CPUC Approval⁶	N/A	N/A	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 G.3 to PG&E's 2020 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 2021 Bundled RPS Energy Sale Solicitation, governed by the 2020 RPS Plan.

2. Sales solicitation process and schedule

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

Event	Date/Time
PG&E issues solicitation	April 19, 2021
Participants' Webinar	April 27, 2021 at 10:00 AM
Deadline for Participants to submit bids through Power Advocate	May 17, 2021 at 1 PM
PG&E notifies qualified bidders	May 24, 2021
Execution date	June 9, 2021; June 16, 2021; June 24, 2021

⁶ PG&E utilized the STC 1 definition for CPUC Approval in its executed sales agreements resulting from the Spring 2021 Bundled RPS Energy Sale Solicitation.

PG&E submits Agreements for CPUC approval via Tier 1 Advice Letter	July 29, 2021
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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"> 2021, 2022
Agreement	<ul style="list-style-type: none"> Confirmation 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 Artea; or (ii) The Project has an agreement to dynamically transfer electricity to a California Balancing Authority.
Seller's Conveyance of Green Attributes	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)

	<p>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 Certificates shall transfer from Seller to Buyer.</p>
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F. Valuation Process: Quantitative and Qualitative Analysis

For Sales contracts, provide a quantitative analysis that evaluates selling the proposed contracted amount vs. banking the RECs 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 B2 – 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 B2 – 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 May 27, 2021, PG&E provided an update via email to the PRG regarding the bids received and an 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 relating 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 2020 RPS Plan and is consistent with Ordering Paragraph 3 of D. 21-01-015, 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 MCE, EBCE, and BMWNA PPSAs shall be credited against costs recorded to the Portfolio Allocation Balancing Account ("PABA") on a pro-rata basis.

Protests

*****Due to the COVID-19 pandemic, 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 18, 2021 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:

Sidney Bob Dietz II
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 2020 RPS Plan, PG&E is submitting this advice letter with a Tier 1 designation to be effective upon submittal on July 30, 2021. PG&E will begin deliveries upon receiving final and non-appealable CPUC Approval.

Notice



ADVICE LETTER SUMMARY

ENERGY UTILITY



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

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

Utility type:

- ELC GAS WATER
 PLC HEAT

Contact Person: Annie Ho

Phone #: (415) 973-8794

E-mail: PGETariffs@pge.com

E-mail Disposition Notice to: AMHP@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) #: 6276-E

Tier Designation: 1

Subject of AL: Spring 2021 Bundled RPS Energy Sale Solicitation; Power Purchase and Sale Agreement Between Pacific Gas and Electric Company and Multiple Buyers

Keywords (choose from CPUC listing): Procurement, Agreement

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 & 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

Resolution required? Yes No

Requested effective date: 7/29/21

No. of tariff sheets: N/A

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: N/A

Service affected and changes 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: Sidney Bob Dietz II, 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:

**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 6276-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 6276-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

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)
Advice Letter 6276-E
July 29, 2021

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
<p>Appendix A, Consistency with Commission Decisions and Rules and Project Development Status</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>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>

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July 29, 2021

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
	<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>

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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 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>

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July 29, 2021

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
Appendices D1, D2, & D3 Summary of Contracts	<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(B): Specific quantitative analysis involved in scoring and evaluation of participating bids</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>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 Item VIII(B): Three years after winning bidders selected</p>
Appendices E1, E2 & E3 Comparison of PPSAs with PG&E's 2020 Pro Forma RPS Short-Term Sales Confirmation	Item VII(G): Renewable Resource Contracts under RPS program - Contracts without SEPs	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.	For Item VII(G): Three years from date contract states deliveries to begin, or one year after expiration (whichever is sooner)
Appendices F1, F2 & F3 Power Purchase and Sale Agreement	Item VII(G): Renewable Resource Contracts under RPS program - Contracts without SEPs	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.	For Item VII(G): Three years from date contract states deliveries to begin, or one year after expiration (whichever is sooner)

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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
<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 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</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>

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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
		<p>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>	

Appendix A

Consistency with Commission Decisions and Rules (Confidential)

Appendix B

Solicitation Overview and Results (Confidential)

Appendix B1

Solicitation Overview and Results (Confidential)

Appendix B2

**Solicitation Overview and Results
(Excel Spreadsheet)
(Confidential)**

Appendix C1

Final RPS Project-Specific Independent Evaluator Report (Confidential)

Appendix C2

Final RPS Project-Specific Independent Evaluator Report (Redacted)

ARROYO SECO CONSULTING

PACIFIC GAS AND
ELECTRIC COMPANY:
SPRING 2021 BUNDLED
RPS ENERGY SALE
SOLICITATION

REPORT OF THE INDEPENDENT
EVALUATOR ON CONTRACTS FOR SALE OF
RENEWABLE ENERGY TO BMW OF NORTH
AMERICA, LLC, EAST BAY COMMUNITY
ENERGY AUTHORITY, AND MARIN CLEAN
ENERGY

JULY 23, 2021

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1. EXECUTIVE SUMMARY

This report provides a review of three sale agreements executed by Pacific Gas and Electric Company (“PG&E”), for renewable energy to be delivered from PG&E’s supply portfolio. East Bay Community Energy Authority (“EBCE”) is a joint powers authority and Community Choice Aggregator (“CCA”) that serves retail customers in Alameda County with energy. Marin Clean Energy (“MCE”), formerly Marin Energy Authority, is also a joint powers authority that operates as a CCA in communities in Marin, Contra Costa, Napa, and Solano Counties. A third buyer, BMW of North America, LLC, is a distributor of motor vehicles and a subsidiary of the manufacturer Bayerische Motoren Werke Aktiengesellschaft. The transactions originated from PG&E’s Spring 2021 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 the 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 not robust, and PG&E’s methodology was designed fairly and administered fairly. Arroyo’s qualified opinion is that contract negotiations were conducted in a manner that was fair to competing buyers and to ratepayers.

Arroyo believes that the prices of the contracts are reasonable, although the California market for Portfolio Content Category 1 (“PCC1”) energy is illiquid and not transparent so that obtaining fresh and publicly available comparable pricing information with which to assess price reasonableness is challenging. The transactions are consistent with the sales framework that was approved by the CPUC as part of PG&E’s 2020 RPS procurement plan. The portfolio fit of the contracts ranks high. Based on these observations, Arroyo’s opinion is that the executed BMW, EBCE, and MCE contracts all merit CPUC approval.

2. ROLE OF THE INDEPENDENT EVALUATOR

This chapter describes key roles of the IE and summarizes activities undertaken to fulfill them in PG&E's process of seeking bids for short-term sales 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 CPUC’s 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 three buyers, Arroyo performed various tasks:

- Reviewed the solicitation protocol, PG&E’s analyses and plans, and CPUC guidance;
- Discussed with the PG&E team its plan to pursue sales of bundled renewable energy and analyzed its outreach efforts;
- Observed negotiations between PG&E and BMW NA, but not the telephonic discussions reported by PG&E to have taken place with the CCAs EBCE and MCE following bid submittal.
- Attended a meeting of PG&E’ Procurement Review Group in which the utility presented its approach to the solicitation;
- Reviewed marked-up drafts of the confirmation agreements as parties discussed edits to PG&E’s initial draft form confirmation agreement; and

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

- Researched recent comparable transactions of PCC1 renewable energy for publicly available market pricing data to serve as benchmarks for price reasonableness.

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

On April 19, 2021, PG&E distributed 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 (which also served as a bid form) and a pro forma EEI master agreement, a public solicitation protocol, a form for participant attestations, and a non-disclosure agreement. The webpage also included 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 the years 2016² through 2020, and has developed a customized contact list of potential renewable energy buyers for those efforts. This 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 this 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 Request for Offers (“RFO”) contact list, which the utility uses for outreach generally for energy procurement solicitations for buying products. This much larger list (more than 2,500 contacts) is primarily composed of generation developers or owners and businesses that service their needs, and therefore does not focus on the likeliest candidates to seek to buy RPS-eligible energy, rather than those likely to sell it. Figure 2 displays the composition of this RFO contact list. Among the sectors likeliest to participate in this specific solicitation to sell energy, wholesale marketers, direct access energy services providers (“ESPs”), utilities, and CCAs were included.

In the actual event, [REDACTED] of the participants in the solicitation were contacted through the focused contact list, while [REDACTED] notified through the broader 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 public

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.

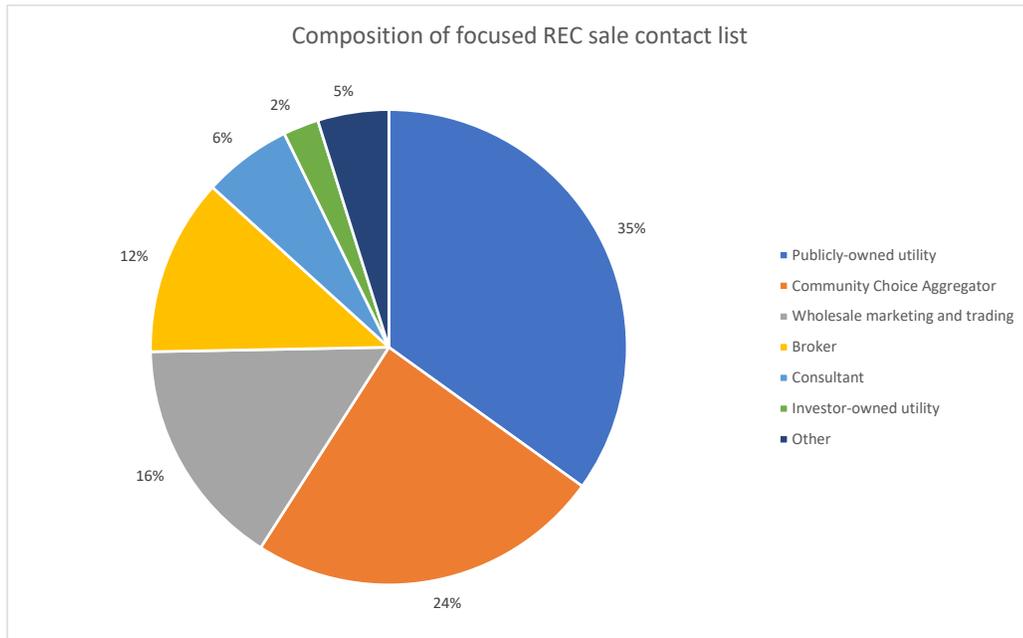
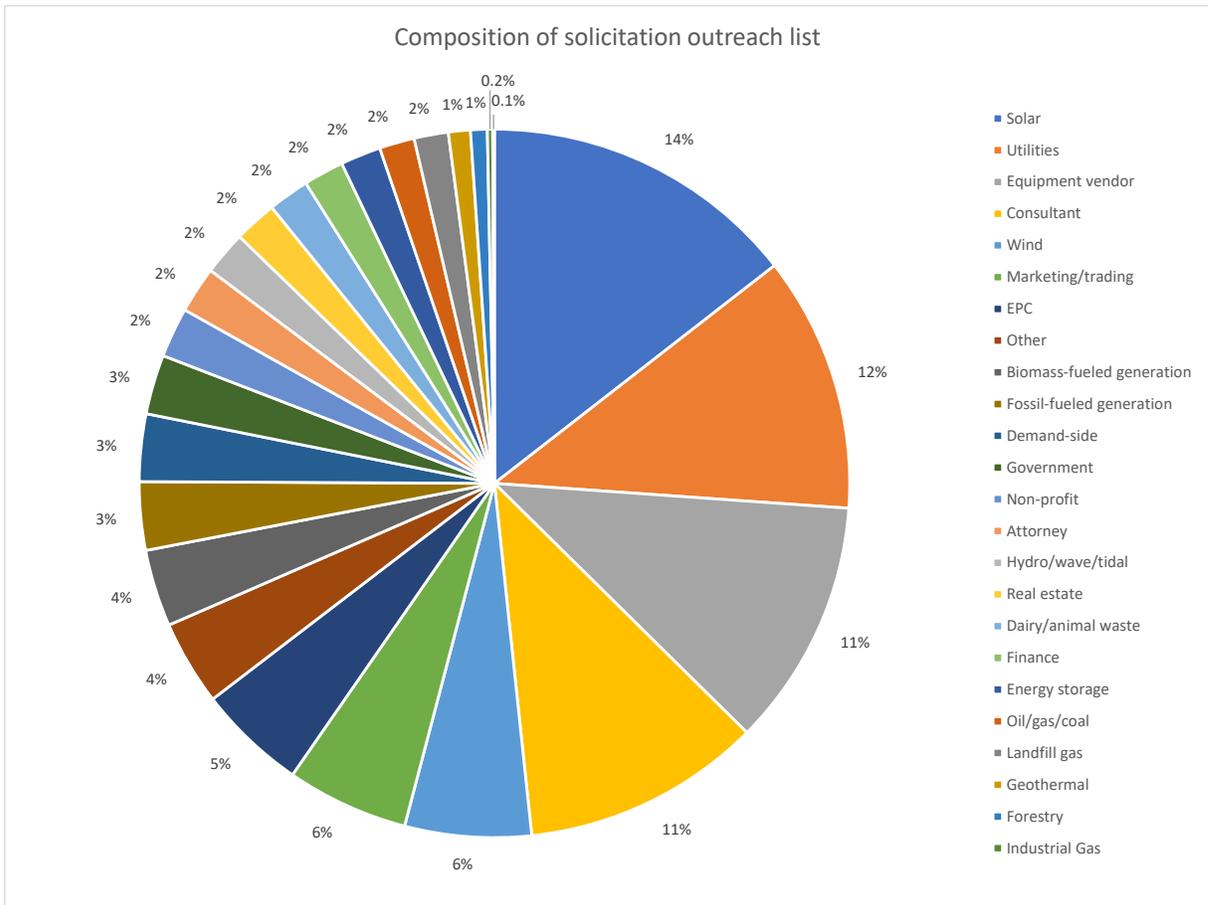


Figure 2.



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 from adding to its outreach contact list some CCAs that are pursuing their start-up activities or growing their customer base³, but that 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 Apple Valley Choice Energy, Baldwin Park Resident Owned Utility District, Pico Rivera Innovative Municipal Energy, Pioneer Community Energy, Pomona Choice Energy, Rancho Mirage Energy Authority, San Diego Community Power, San Jacinto Power, Western Community Energy, and other emergent CCAs outside the PG&E service territory. It might also be best to restore [REDACTED] to the focused contact list for Renewable Energy Certificate (REC) sales, as was previously the case in past solicitations.

B. CLARITY AND CONCISION OF SOLICITATION MATERIALS

PG&E published on its website a written public protocol to document the solicitation's requirements and to communicate the evaluation criteria that the utility would use to make its selection decision. The protocol was ten pages long, which is concise for a California IOUs' solicitations, for which protocols can run to dozens of pages. For example, San Diego Gas & Electric Company's protocol for its 2021 Request for Offers for the Sale of Renewable Energy Products from BioRAM Resource is 16 pages long. PG&E's market notice e-mail was also succinct, relying 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. None of the attendees of the participants' webinar asked any questions about the presentation. In the actual event, all participants submitted conforming bids.

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]

[REDACTED] The latter is likely not positioned to participate as a buyer of renewable energy as opposed to aspiring to be a seller. Arroyo's inference is that a fraction of registrants lacked clarity about PG&E's intent for this energy sale solicitation. It is not clear whether any deficiency in the solicitation materials could account for these registrants' misplaced expectations.

On May 7, 2021, PG&E issued a market notice communicating that it had posted a Supplemental Bid Form on the solicitation's webpage. This served as an alternative confirmation agreement for the transaction, one in which the bundled RPS energy sold to

³ Note, for example, that MCE expanded its service territory to include retail customers in Pleasant Hill and Vallejo in April 2021, which presumably increased its compliance obligation going forward.

winning bidders will be sourced solely from projects employing solar photovoltaic, wind, or small hydroelectric generation. Feedback to PG&E in the past, and most recently from parties interested in this solicitation, included a concern that purchases from biomass-fueled, geothermal, and solar thermal generation might force a buyer that is a compliance entity to post a Power Source Disclosure showing greenhouse gas emissions (“GHG”) from these latter technologies.⁴ To the extent that some compliance entities market their premium products as 100% free of GHG emissions this would be inconsistent with their mission and marketing strategy.

By allowing bidders to choose which of the two versions of the confirmation agreement to execute, PG&E was adjusting the offering of this solicitation to the stated needs of potential participants. The solicitation protocol was also amended to reflect the addition of the Supplemental Bid Form. Arroyo believes that participants clearly understood the function of this alternative confirmation agreement, though there was some minor dialogue in which potential participants sought to confirm that bidders’ preferences were met.

Note that by creating an alternative version of the confirmation agreement, PG&E diverged from the pro forma version of the contract that was approved by the CPUC when it accepted the utility’s 2020 RPS procurement plan. However, the variance was equivalent to deleting about two dozen projects from Appendix A of the agreement, reducing the list of facilities from which REC sales can be sourced. The only other edits to the original confirmation were adjustments to the sections defining Projects and a provision regarding Facility Identification that are consistent with the change in the list of facilities.

C. BIDDERS’ CONFERENCE

PG&E convened a participants’ webinar on April 27, 2021 to provide information to potential participants. The presentation covered an overview of the solicitation’s product, delivery term, and schedule, a review of the pro forma confirmation agreement, a discussion of the evaluation criteria, and details of the logistics of submitting bid packages. At the end of the webinar PG&E asked for questions from the audience, but none were posed. This might signify that the presentation materials were clear or that the audience members concluded that they were not interested in participating in the solicitation. [REDACTED] [REDACTED] compliance entities with a business need to procure RPS energy; the remainder included a consulting firm that provides its services on energy markets, IT architecture, and software. Arroyo believes that most of the attendees appropriately understood the nature of the solicitation.

D. ROBUSTNESS OF THE SOLICITATION

PG&E did not publicly state a quantitative target for this solicitation. In its CPUC-approved 2020 renewable energy procurement plan filings it provided a confidential framework for sales of excess RPS volumes. [REDACTED] [REDACTED]

⁴ PG&E also deleted an RPS-eligible facility that the CEC categorizes as “Existing Large Incremental Hydroelectric” from the list; all hydroelectric facilities remaining qualify as small hydro projects.

[REDACTED]. These were not explicitly stated as targets [REDACTED]

Bids were received from [REDACTED]. The total volume of the bids [REDACTED]. This was not a robust response. It was weak in robustness in comparison to that of PG&E's Winter 2020 solicitation, which elicited [REDACTED]

All bids conformed to the requirements of the solicitation protocol.

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 period. The IOUs hold long positions, leaving some but not all publicly-owned utilities, CCAs (or their wholesale marketing agents), and direct access providers as likeliest potential buyers. Some CCAs have reported publicly that they have fulfilled their near-term compliance needs. 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. Because there is a compliance requirement for long-term contracts beginning in 2021 anyway, some compliance entities appear to prefer to seek deliveries from new facilities starting operations in 2021 or 2022 instead of making short-term purchases. This is evidenced by CCAs' issuance of requests for proposals for long-term purchases in 2020 and 2021.
- 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 in 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 existing solar, wind, biomass-fueled, and geothermal resources in its portfolio.
- 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, Central Coast Community Energy and Silicon Valley Clean Energy conducted 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 held a Request for Proposals (“RFP”) for long-term PCC1 or PCC2 energy supply with a March 2020 deadline.

The response to this solicitation was not robust. Arroyo speculates that a few CCAs and POUs may still need to fulfill their procurement targets for the remainder of 2021 but that in May it is possibly too early for them to ascertain the quantity needed with precision, and these compliance entities have other venues in which to make purchases in the remainder of the year such as their own solicitations or bilateral contracting.

E. PARTICIPANTS’ FEEDBACK ABOUT THE PROCESS

PG&E intends to circulate a survey to seek feedback about the solicitation from both participants and from non-participants on its focused sale-specific contacts list. The results of this survey had not been received and compiled by the time this report was finalized.

There were a few high-level findings from the survey that PG&E conducted following its previous Winter 2020 Bundled RPS Energy Sale solicitation:

- Respondents generally agreed that
 - Instructions for the solicitation were clear;
 - PG&E clearly identified the criteria it would use to evaluate bids;
 - No difficulties were encountered filling out the bid form; and
 - The online bid submission process did not pose difficulties.
- Most respondents expressed a willingness to participate in PG&E’s future short-term bundled RPS sale solicitations.

Responses to the survey were few in number so it is unclear whether these observations would be shared by non-respondents.

4. FAIRNESS OF PG&E'S BID 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 Least-Cost, Best-Fit ("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 bids 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 RPS energy sales; this is consistent with PG&E's approved 2020 RPS procurement plan. This criterion differs from some of PG&E's prior Bundled RPS Energy Sale

solicitations, in which the quantitative criterion was to maximize revenue. In Arroyo’s opinion, seeking maximum sales prices rather than maximum sales revenue is more consistent with PG&E’s Portfolio-Adjusted Value metric approved by the CPUC as the LCBF methodology. While maximizing price and maximizing revenue should generally result in the same selection of bids, there are scenarios where selections would differ.

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 confirmation agreement. The solicitation 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 EEI master agreement.

PG&E did not explicitly propose to employ other evaluation criteria that 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 for 2021 and 2022 deliveries of bundled renewable energy from the utility’s supply portfolio.

Consistency with RPS Procurement Plan. In PG&E’s 2020 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 2020 plan, that stated that PG&E intended to issue a minimum of two short-term sales solicitations in 2021 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; this solicitation was for sales for a delivery term of one year (2022) or less than one year (2021). In approving the RPS procurement plan the CPUC also approved the evaluation criteria for the selection of bids.

Note that in issuing an alternative Supplemental Bid Form and using it as the basis for contracting, PG&E has modified the confirmation agreement from the pro forma version approved by the CPUC when it approved the RPS procurement plan. Ordering Paragraph 3 of Decision 21-01-015 approving the plan accommodates “necessary modifications” of the pro forma sales agreement; it will be up to the regulator’s judgment whether the edits to the pro forma were necessary. In Arroyo’s opinion, [REDACTED]

[REDACTED] it would support a thesis that the modifications were “necessary”.

Market Valuation. PG&E did not calculate Portfolio-Adjusted Value (“PAV”) 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 2020 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 instead chose to use maximizing price as the metric for evaluating bids in its recent 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 H of the 2020 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 bids by price to differ from a ranking by PAV, the CPUC-approved LCBF evaluation criterion, in a REC sale solicitation.

[REDACTED]

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 bid 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 methodology to choose bids for contracting in its Spring 2021 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?

Other considerations 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 H of the 2020 RPS procurement plan that detailed the framework applicable to 2021 solicitations?
- 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. PG&E did not identify deficiencies in the selected bids (the three counterparties have previously transacted for short-term RPS energy sales with PG&E and so are knowledgeable about PG&E's forms and practices).

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

Figure 3.



Similarly, Figure 4 displays bid prices for 2022 delivery. [REDACTED]

[REDACTED] PG&E contacted [REDACTED] on the afternoon of the bid deadline and notified them that it would not transact sales contracts based on the submitted bids. [REDACTED]



Figure 4.



PG&E used the framework specified in confidential Appendix H of its 2020 RPS procurement plan to evaluate these proposals. [REDACTED]

[REDACTED] This evaluation was, in Arroyo’s opinion, fully consistent with the approved methodology in PG&E’s approved 2020 RPS procurement plan, which applies to REC sale solicitations throughout 2021.⁵

⁵ Commercial Energy of California protested PG&E’s advice filing of the contracts from its Winter 2020 Bundled RPS Energy Sale, raising a concern about potentially collusive bidding by CCAs. One form of conduct that Commercial Energy hypothesized might have occurred was that a low bidder whose initial proposal was not selected, upon being offered the opportunity to refresh its price, could collude with another bidder and raise its refreshed price to “a price close to the next party’s price” but not “match precisely the lowest successful price” of successful bidders. [REDACTED]

[REDACTED] Arroyo observed no direct evidence that bidders acted in collusion in this solicitation (Arroyo has previously reported on an apparent breach of the obligations of bidders and their agents and representatives to handle confidential information appropriately in a prior solicitation). Neither PG&E nor the IE have tools necessary, e.g., subpoena powers, to fully investigate bidders’ failure to adhere to binding warranties and representations to which participants agree as a condition of submitting a bid, nor a failure to adhere to the non-disclosure terms of the Confidentiality Agreement that participants must sign.

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]

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

[REDACTED]

C. RESULTS ANALYSIS

Arroyo agreed with PG&E's selection of bids. All participants submitted packages that conformed to requirements of the solicitation; no bids were rejected for deficiencies.

Summary. Observations regarding PG&E's administration of its evaluation methodology in this Spring 2021 Bundled RPS Energy sale solicitation 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; Arroyo did not, for example, observe PG&E treating participants differently based on prior commercial relationships.
- The economic evaluation of bids was fair and consistent.
- 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 evaluation was [REDACTED]
- Because PG&E used price as its 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 requested volume, not energy pricing.
- Arroyo believes that PG&E's conduct of the Spring 2021 Bundled RPS Energy Sale solicitation was, overall, consistent with its approved 2020 RPS procurement plan, noting a modest set of modifications to the pro forma confirmation leading to an alternative version that was provided to participants.

[REDACTED]

- Arroyo agrees that based on PG&E's 2020 framework for evaluating bids to sell renewable energy, the utility made reasonable and justifiable decisions to select bids.

Arroyo's opinion is that PG&E's evaluation and selection process 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 notified participants that proposals had been selected or rejected as qualified bids on May 19, 2021 ([REDACTED] PG&E began discussions with counterparties the following week, resulting in execution of agreements with MCE on June 9, 2021, with EBCE on June 16, and with BMW NA on June 24.

Arroyo telephonically observed discussion sessions between the commercial teams of PG&E and BMW NA; Arroyo was not included in negotiation sessions held with EBCE and MCE. Arroyo also reviewed marked-up draft contracts in an effort to identify specific proposals and counterproposals made by the parties. The starting point for negotiations was either the pro forma EEI short-form confirmation agreement that was included in PG&E's 2020 RPS procurement plan or the alternative version of that agreement that was made publicly available on the utility's website.

Arroyo's qualified 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 the degree to which the resulting contracts 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 NA, EBCE, and MCE.

- 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 COUNTERPARTIES

With the exception of the contract with BMW NA, terms and conditions in the form agreement for sales of bundled RPS energy were not significantly altered from the pro forma after bids were selected. These conversations focused on:

- Credit Requirements. [REDACTED]

[Redacted]

- Confidentiality agreement.

[Redacted]

- Facilities list.

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[REDACTED]

[REDACTED]

[REDACTED]; the contract with MCE was executed on June 9, 2021; the contract with EBCE on June 16. The contract with BMW NA was executed on June 24.

C. FAIRNESS OF NEGOTIATIONS

To the extent that Arroyo was able to observe negotiations between PG&E and participants, its qualified opinion is that these were conducted fairly, overall. (Arroyo was not included in key telephonic discussions that PG&E held with [REDACTED] and bases its conclusions on drafts of the confirmation agreement and on PG&E's narrative of the discussion rather than on direct independent observation of negotiations.) Each participant was given an equitable opportunity to advance its proposals towards execution. The distribution of risk between buyer and seller is generally the same in these contracts as in prior agreements that PG&E has negotiated with northern California CCAs. 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] Arroyo's opinion is that the treatment of these buyers [REDACTED] was based on the [REDACTED], rather than on any unfairly favorable treatment of familiar counterparties or discrimination against any class of counterparty, such as Energy Service Providers.

[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 qualified opinion is that PG&E's negotiations with participants were handled fairly with respect to competitors. Bids were accepted or rejected based on PG&E's CPUC-approved 2020 framework for short-term RPS energy sales and on evaluation criteria stated in the public protocol. Arroyo believes that PG&E's conduct was 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 NA, EBCE, and MCE 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 2021 and 2022. 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, overall, adhered to its protocol and to its CPUC-approved 2020 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 consistent with the framework laid out in confidential Appendix H of PG&E's 2020 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 public 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, overall, consistent with its solicitation protocol and with the 2020 RPS procurement plan approved by CPUC Decision 21-01-005.

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]

C. CONSISTENCY WITH PROTOCOL AND PROCUREMENT PLAN

PG&E's sale of bundled energy in these three contracts generally conforms to its 2020 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. PG&E chose to provide participants with an alternative, supplementary version of the original confirmation agreement that had been approved by the CPUC along with the 2020 plan. This alternative version was edited to alter the list of projects from which RPS energy deliveries can be sourced. Arroyo notes that the changes from the previously filed version

do not involve any material changes other than to the facility list, and that there have been precedents in which PG&E has altered its project list in negotiating confirmation agreements from the version approved with its applicable approved procurement 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 three sales contracts.

Pricing and market value. PG&E will sell to EBCE bundled RPS-eligible renewable energy at market index plus a REC price [REDACTED]; the contract with MCE is priced at market index plus [REDACTED]. The unit-contingent sale of bundled RPS energy to BMW NA is priced at [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 2020 to sell renewable energy elicited initial bids for 2021 deliveries priced at [REDACTED]. The CPUC approved the advice filing for these transactions in June 2021. [REDACTED]

There are some pricing data for recent renewable energy sales to or from publicly-owned utilities and CCAs for deliveries in 2021 and 2022 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 Pasadena contracted with Powerex in April 2018 for 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.

- Redwood Coast Energy Authority (“RCEA”) has had a PPA with Humboldt Sawmill Company since 2017 for delivery of RPS-eligible energy from a biomass-fueled cogeneration unit sited with the sawmill in the town of Scotia. While most of the energy deliveries are sold at a base price that has been as high as \$83/MWh and as low as \$63/MWh, if the annual production exceeds 116% of contract quantity the “surplus delivered energy” is sold at hourly market price plus a green attribute price.

The contractual green attribute price had been \$14.50/REC from the beginning of the delivery term. In the spring of 2021, RCEA and Humboldt Sawmill Company negotiated an extension of the delivery term of the PPA to 2031. The extension reduced the green attribute price to \$11/REC from \$14.50, and the staff report to RCEA’s board stated that this was “in keeping with current market pricing for renewable energy attributes.” This suggests that RCEA perceived a decline in PCC1 REC market prices from 2017 to 2021.

- 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 commenced upon commercial operation in January 2021.
- 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 municipality 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 Western Electricity Coordinating Council with a “preferred generation location of California.”
- 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.
- The city of Moreno Valley executed two short-term purchase agreements for RPS energy deliveries. One, signed in mid-2019, was with Tenaska Power services for deliveries in calendar 2019 from the Coso geothermal projects sited on the China Lake Naval Weapons Center near Ridgecrest. The PCC1 RECs were priced at \$17.75/REC. An earlier, separate agreement was signed with TGP Energy Management (a subsidiary of Terra-Gen Power) for deliveries from 2017-2020 from a pooled set of resources. These PCC1 RECs were priced at \$16/REC.
- In August 2020 the city of Palo Alto embarked on a program to sell PCC1 RECs from its supply portfolio and to use the proceeds to buy greater volumes of

PCC3 RECs in order to maintain compliance with its RPS obligations while reducing its compliance costs (while relying more on out-of-state resources than it had previously). In March 2021 the utilities department staff reported to the city council that the average purchase price of the PCC1 RECs for calendar 2020 (following August) was \$13.70/REC.

Other older transactions for PCC1 energy are also publicly visible, but these may be poorer benchmarks for the current transactions for 2021 and 2022 deliveries.

Contract deliveries from the agreements

[REDACTED]

[REDACTED]

Arroyo’s inference from this mix of scant data is that the prices of PG&E’s contracts 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 now rather than to bank 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 sales contracts fit with the utility’s portfolio strategy of reducing the surplus REC position in 2021 and 2022 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] and on [REDACTED]. The contracts are consistent with PG&E’s 2020 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. [REDACTED]

████████████████████ Arroyo's opinion is that the methodology for evaluating and selecting a short list and the administration of that methodology were fair.

Arroyo's qualified opinion is that PG&E's negotiations with participants were handled fairly with respect to competitors and ratepayers. In Arroyo's opinion, the allocation of costs and risks between ratepayers and buyers that resulted from negotiations was generally consistent with PG&E's past practices. Arroyo believes 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, LLC, East Bay Community Energy Authority, and Marin Clean Energy all merit CPUC approval.

Appendix D1

**Contract Summary: Marin Clean Energy (MCE)
(Confidential)**

Appendix D2

**Contract Summary: East Bay Community Energy
Authority
(EBCE)
(Confidential)**

Appendix D3

**Contract Summary: BMW of North America (BMWNA)
(Confidential)**

Appendix E1

**Comparison of Contract with Utility's Pro Forma
Agreement: MCE
(Confidential)**

Appendix E2

**Comparison of Contract with Utility's Pro Forma
Agreement: EBCE
(Confidential)**

Appendix E3

**Comparison of Contract with Utility's Pro Forma
Agreement: BMWNA
(Confidential)**

Appendix F1

**Sales Agreement: MCE
(Confidential)**

Appendix F2

**Sales Agreement: EBCE
(Confidential)**

Appendix F3

**Sales Agreement: BMWNA
(Confidential)**

Appendix G1

PG&E's Renewable Net Short Calculation (Confidential)

Appendix G2

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



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 seller 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	CP3	2	3	4	5	CP4	6	7	8	CP5	9	10	11	CP6
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	I-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.

Appendix H1

Facility List: MCE, EBCE

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
CEO 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
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	62325A	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
Shioh 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 Sempra El Dorado Solar)	Solar PV	Boulder City, NV	60713A	CAISO	10	20	12/19/08	12/31/28
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
Alpine Solar Project	Solar PV	Lancaster, CA	60755A	CAISO	66	20	04/21/10	01/17/33
CM48 (fka Sempra Copper Mountain 1)	Solar PV	Boulder City, NV	60786A	CAISO	48	20	06/22/09	01/31/31
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
Big Creek Waterworks	Small Hydro	Hypom, 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
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
Shioh 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
Shioh IV	Wind	Rio Vista, CA	61817A	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
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 Narrows 1	Small Hydro	Nevada, CA	60052A	CAISO	12	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 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	Helm, 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

Appendix H2

Facility List: BMWNA

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

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

AT&T
Albion Power Company

Alta Power Group, LLC
Anderson & Poole

Atlas ReFuel
BART

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

California Hub for Energy Efficiency
Financing

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

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

Chevron Pipeline and Power
City of Palo Alto

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

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

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

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

Green Power Institute
Hanna & Morton
ICF

IGS Energy
International Power Technology
Intestate Gas Services, Inc.
Kelly Group
Ken Bohn Consulting
Keyes & Fox LLP
Leviton Manufacturing Co., Inc.

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

Modesto Irrigation District
NLine Energy, Inc.
NRG Solar

Office of Ratepayer Advocates
OnGrid Solar
Pacific Gas and Electric Company
Peninsula Clean Energy

Pioneer Community Energy

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

SPURR
San Francisco Water Power and Sewer
Sempra Utilities

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

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