

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE



February 24, 2020

Advice Letter 5736-E

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

SUBJECT: PG&E's 2020 Demand Response Auction Mechanism Purchase Agreements

Dear Mr. Jacobson:

Advice Letter 5736-E is effective as of January 10, 2020.

Sincerely,

A handwritten signature in cursive script that reads "Edward Randolph".

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

January 10, 2020

Advice 5736-E

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

**Subject: PG&E's 2020 Demand Response Auction Mechanism Purchase
Agreements****I. Purpose**

In compliance with Decision (D.) 19-07-009, Pacific Gas and Electric Company ("PG&E") hereby submits this advice letter seeking approval of five Purchase Agreements executed between PG&E and five winning participants, resulting from PG&E's 2020 Demand Response Auction Mechanism ("DRAM") Request for Offers ("2020 DRAM RFO").

II. Background

On September 25, 2013, the Commission issued Order Instituting Rulemaking (OIR) 13-09-011 "To Enhance the Role of Demand Response (DR) in Meeting the State's Resource Planning Needs and Operational Requirements." The Commission reviewed a Resource Adequacy (RA) Capacity Payment Mechanism for DR and Participation of Retail DR in the California Independent System Operator (CAISO) wholesale market. On December 4, 2014, the Commission issued D.14-12-024, "Resolving Several Phase Two Issues and Addressing the Motion for Adoption of Settlement Agreement on Phase Three Issues" (later revised to be the Joint Proposal of the Joint Sponsoring Parties). In this Decision, SCE, PG&E, and SDG&E (together, the IOUs) were ordered to submit an advice letter for the DRAM pilot, together with a standard contract. The DRAM pilot was intended to test: a) the feasibility of procuring DR Supply Resources for RA with third party direct participation in the CAISO markets through an auction mechanism; and b) the ability of winning bidders to integrate their DR Resources directly into the CAISO market.

D.14-12-024 required the IOUs to design and implement DRAM for 2016 (2016 DRAM) and 2017 ("2017 DRAM"). An "open to the public" working group collaborated on the

DRAM pilot design and standard contract language under the active and on-going supervision of the Commission staff.

Concurrently with the IOUs' implementation of its 2017 DRAM, the Commission addressed the need for an additional, post-2017 DRAM solicitation via the process used to review and approve the IOUs' 2017 demand response programs and budgets. D.16-06-029 approved the IOUs proposed 2017 programs and budgets, with modifications, and directed the IOUs to continue DRAM with an auction in 2017 for deliveries in 2018 (2018-2019 DRAM). The DRAM working group met and discussed modifications to the third DRAM pilot that expand on the experience of the first two DRAM pilots and met Commission requirements as ordered in D.16-06-029.¹ SCE submitted an advice letter on behalf of the IOUs on September 1, 2016,² with the proposal resulting from the working group, including the associated auction design and pro forma contract. The Commission approved this advice letter, with modifications, in Resolution E-4817.³ The IOUs launched the 2018-2019 DRAM RFO on or about March 10, 2017, and submitted the executed standard form Purchase Agreements on June 30, 2017. The Commission approved the advice letters by disposition letter on August 14, 2017.

On April 27, 2017, in response to Petitions for Modifications (PFM) filed by Converge, Inc., CPower, EnerNOC, Inc., and EnergyHub (collectively, the "Joint DR Parties") and OhmConnect, the Commission determined that business opportunities for DRPs could be limited under the corresponding \$27 million budget approved for the 2018-2019 DRAM RFO.⁴ On October 26, 2017, the Commission issued D.17-10-017, and determined that it is reasonable to require PG&E, SCE, and SDG&E to conduct an additional 2018 auction for contract deliveries in 2019. D.17-10-017 directed the IOUs to conduct an additional DRAM pilot solicitation in 2018 for 2019 capacity ("2019 DRAM"), and ordered the IOUs to use the final approved 2018-2019 DRAM guidelines for the additional 2019 DRAM, except that the contract term shall be limited to one year and additional guidelines were required.⁵ The IOUs launched the 2019 DRAM RFO on or about January 25, 2018, and submitted the advice letter with the executed standard form Purchase Agreements for

¹ The DRAM working group's activities were conducted at the express direction and under continuing supervision of the Commission. The DRAM working group included the IOUs, Ratepayer Advocates (Public Advocates Office (PAO, formerly ORA for the Office of Ratepayer Advocates) and The Utility Reform Network (TURN)), DR providers, Energy Division (ED) Staff, and other interested stakeholders.

² PG&E Advice 4900-E, SCE Advice 3466-E, and SDG&E Advice 2949-E (collectively, "PG&E Advice 4900-E, et al").

³ Resolution E-4817 also ordered a supplemental advice letter to be submitted demonstrated compliance with the Resolution, which was submitted on February 2, 2017. Two other supplementals were submitted on PG&E Advice 4900-E, et al. See PG&E Advice 5109-E for additional details.

⁴ Petition of the Joint DR Parties for Modification of D.16-06-029 was filed February 3, 2017, in R.13-09-011. Petition for Modification of OhmConnect of D.16-09-056 was filed December 30, 2016, in R.13-09-011.

⁵ See PG&E Advice 5284-E for additional details.

executed Purchase Agreements on May 1, 2018. The Commission approved the advice letters on September 12, 2018, by disposition letter.

Concurrently with the DRAM pilots, the IOUs filed their applications for demand response programs, pilots and budgets for program years 2018-2022 on or about January 17, 2017. Decision (D.) 17-12-003 adopted demand response budgets for each of the three utilities to conduct demand response programs, pilots and associated activities for program years 2018 through 2022. D.17-12-003 also determined the proceeding should remain open to consider a number of specific issues. DRAM was not among the issues identified in D.17-12-003.

On May 22, 2018, the assigned Commissioner issued an Assigned Commissioner's Amended Scoping Memo and Ruling, (Amended Scoping Memo) amending the scope to include the consideration of the Demand Response Auction Mechanism pilot (Auction Pilot) evaluation and extending the statutory deadline for the proceeding to July 17, 2019. The Administrative Law Judge held a status conference on June 18, 2018 to further describe the matter and allow for questions. This was followed by a workshop on July 26, 2018 to present the preliminary results of the Auction Pilot evaluation and discuss next steps, given the evaluation delay. On August 6, 2018, the Administrative Law Judge issued a ruling requesting parties to respond to questions regarding next steps for the Auction Pilot. Responses were filed on August 17, 2018 and reply comments were filed on August 24, 2018.

On November 29, 2018, the Commission approved D.18-11-029, which addressed the question of continuing the DRAM pilot beyond 2019, among other issues. D.18-11-029 described the history of the DRAM pilot auctions for 2016, 2017, 2018 and 2019, and emphasized the importance of the Energy Division's evaluation and recommendations for those pilots.⁶ D.18-11-029 mentions that with the results of the Energy Division evaluation expected in a few weeks, "[t]he Commission should wait for the results and recommendations, then hold workshops based on the recommendations, develop a record, and issue a proposed decision that is based on the results, recommendations, and record."⁷

The Energy Division's evaluation of the DRAM pilots was issued January 4, 2019, with subsequent revisions issued on January 7, 2019. On January 4, 2019, the ALJ issued a ruling allowing parties to file proposed improvements to the DRAM auction mechanism and setting workshops to discuss the proposed improvements and the Energy Division's evaluation. Comments were submitted in response to the ALJ's ruling. The workshop convened on February 12, 2019, at the Commission's San Francisco offices.

⁶ We conclude that continuing the Auction Pilot or adopting a permanent auction mechanism should only be considered with complete results of the pilot valuation and recommendations from the Energy Division for future auction mechanisms." D.18-11-029, mimeo, p. 78.) The Commission stated "[W]e also must ensure that if another auction is authorized, it is done prudently (i.e., with complete results of the evaluation.)" (*Id.* p. 80.)

⁷ *Id.* p.81.

On February 28, 2019, the ALJ issued a ruling requesting parties to answer questions from the February 12 workshop, “February 28th Ruling Directing Responses to Questions Resulting from the February 11-12, 2019 Demand Response Auction Mechanism Workshop and Comments on Proposals to Improve the Mechanism.” On March 29, 2019, many parties submitted their responses to the February 28 ALJ ruling, and reply comments were filed April 10, 2019.

On July 12, 2019, the Commission issued D.19-07-009, authorizing an auction to take place in 2019 for deliveries between June 2020 and December 2020 (“2020 DRAM”), as well as annual auctions for deliveries in 2021, 2022, and 2023. The Commission ordered the IOUs to implement eight improvements⁸ for the 2020 DRAM including requiring bidders to submit information about the customer composition and expected demand response (DR) qualifying capacity (QC) available for each offer. D.19-07-009 also ordered the IOUs to submit an advice letter by August 12, 2019, addressing all contract improvements and RFO guidelines.

D.19-07-009 also authorized a working group to convene to discuss a number of issues, including Refinements to Appendix A and B Guidelines on qualifying capacity and demonstrating capacity. The working group filed its report on August 9, 2019.⁹ Opening comments for the working group report were filed by on August 23, 2019, and reply comments filed on August 30, 2019.

As required by D.19-07-009 OP 4, the IOUs submitted a Tier 2 advice letter with contract improvements and RFO guidelines on August 12, 2019. OhmConnect, the Council, and CPower and Enel X North America, Inc. (Enel X) submitted protests to the joint utilities’ advice letter. The joint utilities issued a supplemental advice letter on September 17, 2019, and parties withdrew their protest between September 19 and September 23, 2019. The advice letter was subsequently approved via disposition on September 26, 2019.

The 2019 DRAM is a competitive solicitation for monthly Resource Adequacy (“RA”) associated with a DR product located in the IOU’s service area that is bid directly into the California Independent System Operator’s (CAISO) electricity markets. PG&E is required to enter into Purchase Agreements up to the authorized budget cap of \$5.7 million, or to a point at which bids are clear price outliers, whichever comes first. Ten percent (10%) of

⁸ The improvements include: providing accurate qualifying capacity (QC) estimates, imposing a penalty structure for shortfalls in demonstrated capacity (DC), calculating DC on invoices, establishing invoice deadlines, replacement of the residential set-aside with a 10 percent set aside limited to new market entrants, elimination of the use of the August price cap, exclusion of the Reliability Demand Response Resources (RDRR) in DRAM, and publication of auction mechanism contract summaries. D.19-07-009, OP 6.

⁹ On the same date, the IOUs submitted a letter to the Executive Director of the Commission requesting, pursuant to CPUC Rule 16.5, the correction of errors in D.19-07-009. The Commission addressed a number of those errors in D.19-09-041.

the capacity is targeted for new market entrants.¹⁰ Winning 2020 DRAM auction participants (“Sellers”) will bid their contracted capacity directly into the CAISO market during the contracted delivery months, between the months of June 2020 to December 2020, and must include bids for August 2020. Seller bids in the 2020 DRAM must qualify for system or system with flexible RA products, and therefore must meet the CAISO’s must-offer obligation (MOO) for the appropriate RA product. Similar to the prior DRAM pilots, the IOUs will only represent the RA attributes of demand response, and will have no claim on revenues the Sellers may receive from the CAISO.

III. **2020 DRAM Summary**

A. **Auction Process**

1. **Auction Overview**

RFO schedule and email notifications. PG&E launched the 2020 DRAM RFO on October 11, 2019, pursuant to D.19-07-009, as modified by D.19-09-041. PG&E announced the RFO launch via email to more than 2,600 registrants that had previously registered with PG&E to receive PG&E’s RFO- or DRAM-related notifications.

Table 1: 2020 DRAM RFO Timeline

Date/Time	Event
October 11, 2019	PG&E issued the RFO.
October 18, 2019 10:00 A.M.	IOUs jointly held a joint Bidders’ Webinar regarding the 2020 DRAM RFO.
November 7, 2019 1:00 P.M.	Offers due to the online platform at Power Advocate online platform.
November 11, 2019	PG&E notified non-conforming Bidders with a request to “cure”. ¹¹
November 18, 2019	Bidder cure period ended.

¹⁰ A new market entrant is defined as a Provider who has not integrated any demand response resources into the CAISO market during the three years prior to a new Auction Mechanism solicitation involving any form of market-integrated demand response including but not limited to the Auction Mechanism or other resource adequacy contracts.

¹¹ Subsequent to this date, the Energy Division informed all the IOUs that the Qualifying Capacity Assessment template (included as a part of each IOU’s DRAM RFO offer submittal materials on their respective websites) did not request all of the data required by Ordering Paragraph 7 under Appendix A of D.19-07-009, and asked the IOUs to request the remaining data from all bidders in the 2020 DRAM. Consistent with the Energy Division’s guidance to the Utilities to follow D.19-07-009’s directives, the IOUs emailed all bidders on November 25, 2019, and asked that they submit additional QC assessment information by 11:59pm on Monday December 2, 2019. The information requested included a revised template and any relevant and applicable supporting documentation.

Date/Time	Event
December 12, 2019	PG&E selected offers and notified bidders of selection.
December 16, 2019	Deadline for selected bidders to return signed acceptance letters.
December 17, 2019	Deadline for selected bidders to submit a signed Purchase Agreement to PG&E.
January 10, 2020	PG&E submittal of executed standard form Purchase Agreements for Commission approval.

RFO website. PG&E created a website dedicated to PG&E's 2019 DRAM RFO (www.pge.com/dram), where the following information was posted:

- (1) a history of the DRAM and relevant Commission decisions and advice letters;
- (2) the solicitation documents, including the 2019 DRAM RFO Protocol ("Protocol"), pro forma Purchase Agreement, Excel offer form,¹² and QC assessment Excel template;
- (3) CAISO bidding information, including how to obtain customer information under Electric Rule 24;
- (4) a packet of information about SC services and estimated costs obtained from a Scheduling Coordinator (SC) Request For Information (RFI) that the IOUs held in 2015, and which was subsequently updated;
- (5) a link to register for PG&E's 2020 DRAM RFO email notifications; and
- (6) other relevant information.

Webinars. A joint-IOU Bidders' Conference was held to describe the 2019 DRAM RFO solicitation on October 18, 2019. This Webinar included the following topics:

- (1) introduction and overview;
- (2) bid valuation and selection;
- (3) DRAM RFO bid materials;
- (4) walk-through of Exhibit F;
- (5) walk-through of each of the IOU's Offer Forms; and
- (6) closing remarks.

RFO mailbox. PG&E created a mailbox dedicated to the DRAM RFO (DRAMRFO@pge.com). PG&E received a number of questions through this mailbox prior to the offer due date.

Altogether, the IOUs received 20 DRAM questions from the Webinar or through the RFO mailbox. The IOUs collaborated on developing the responses, which was reviewed by the independent evaluator, and then posted the questions and answers on the IOUs' respective 2020 DRAM RFO websites.

¹² The Excel offer form included an electronic signature whereby the Seller agreed to abide by the terms and conditions of the Protocol and to maintain confidentiality regarding their offer.

2. Offer Overview

In response to the 2020 DRAM RFO, PG&E received 96 offers totaling approximately 209 MW of DR capacity for August 2020. Of all of the offers received, approximately 199 MW were offers for system capacity only, and approximately 10 MW for flexible capacity with system capacity. The total estimated number of participating service accounts is approximately 255,000. Of these, approximately 95,000 are new service accounts not in a prior DRAM resource. Confidential Appendix A to this advice letter details all 2020 DRAM offers received ("2020 DRAM Offers Received and Shortlisted").

3. Offer Evaluation

Identify Non-conforming Offers. PG&E screened all offers against the following eligibility requirements: minimum monthly quantity of 100 kW for PDR, a required offer for August 2020, and a maximum of twenty (20) offers per participant.

Quantitative Evaluation. Conforming offers were ranked based on their Net Market Value (NMV) per Unit (\$/kW-year), from highest to lowest. The NMV per Unit is determined by:

Net Market Value = RA Benefits – Costs

RA Benefits = Sum of (Offered Volume_P x Product Value_P) where *P* is each Product

Costs = Sum of (Offered Volume_P x Offered Pricing_P) where *P* is each Product

Net Market Value per Unit in \$/kW-year = Net Market Value in dollars divided by Total Offered Monthly Volume in kilowatts and multiplied by 7 for the number of months in the contract term.

Qualitative Evaluation.

PG&E added qualitative assessment criteria to its quantitative evaluation by adjusting an Offer's NMV per unit to reflect additional value or additional risk associated with the Offer. The following qualitative assessment criteria were applied:

Positive factors (decrease costs by):

- 1 percent for bidders who are small businesses, as registered with the California Department of General Services or the U.S. Small Business Association.

Negative factors (increase costs by):

- 15 percent for bidders who have willfully terminated or defaulted on their most recent DRAM PA *or* have submitted offers that demonstrated bidding behavior providing clear evidence of market manipulation or collusion.¹³
- 5 percent for bidders who have not signed a DRAM PA when extended a shortlist offer on their most recent submitted offer *or* if they currently have or previously had a 2019, 2018-2019, or 2017 DRAM contract, have you delivered Supply Plans to the IOUs for DRAM totaling, in aggregate, less than 50 percent of the contracted capacity for all months in your most recent DRAM contract term, at the time of offer submittal.¹⁴

4. Qualifying Capacity (QC) Assessment

In compliance with D.19-07-009, bidders were required to submit estimates of qualifying capacity (QC) for each offer submitted into the DRAM solicitation. These estimates were required to be based on historical information, where available, and otherwise, publicly available performance data that best represents the anticipated performance of the resource. A bidder's failure to provide this information would not comply with D.19-07-009, which would disqualify the bidder's offer. PG&E was required to have firewalled staff at PG&E review the bidder's QC estimates given the confidential and proprietary nature of the information contained within the QC estimates.

5. Offer Selection

In accordance with Energy Decision guidance, PG&E selected DRAM Offers according to the following method:

- a) PG&E ranked Offers by NMV, adjusted for qualitative criteria.
- b) PG&E selected Offers up to the \$5.7 million budget, including administrative costs.
- c) PG&E was not obligated to select an Offer¹⁵ if:
 - i. The Offer's price was above the long-term avoided cost of generation.
 - ii. One or more of the monthly capacity prices of the Offer were outliers.
- d) At least 10 percent of the August MW procured must be set aside for new market entrants.

IV. 2020 DRAM Results

PG&E executed contracts for approximately 99 MW of August 2020 System capacity with a Non-Residential product. Executed contract terms range from June 2020 through

¹³ This criteria must be applied in agreement with the Energy Division and the Independent Evaluator for DRAM.

¹⁴ For example, if a bidder had a 2019 DRAM contract and also had a 2017 DRAM contract, then the 2019 DRAM contract would be applicable for the assessment of this qualitative criteria.

¹⁵ IOUs are to make such exceptions in consultation with the Procurement Review Group (PRG) and with approval of Energy Division.

October 2020 and June 2020 through December 2020. A list of the Sellers who executed 2020 DRAM Purchase Agreements with PG&E is provided in Table 2, below, with contract summaries required by D.19-07-009.

Table 2: 2020 DRAM Sellers

Seller Name	Product Type	Customer Class	Contracted Capacity	Contract Term
Enel X North America, Inc.	System	Non-Residential	19 MW	June to October
Leapfrog Power, Inc.	System	Non-Residential	35 MW	June to December
Stem, Inc.	System	Non-Residential	9 MW	June to December
Tesla Inc.	System	Non-Residential	13 MW	June to December
Voltus, Inc.	System	Non-Residential	23 MW	June to December

The offer selection process and more information on the selected offers' attributes are found in Confidential Appendix B ("Valuation Process Summary"). For more information on the 2020 DRAM results, including benchmarks required by Resolution E-4728, please see Confidential Appendix C ("2020 DRAM Evaluation Metrics"). PG&E notes that such benchmarks to the IOUs' current DR portfolio include program incentives, administration, and systems expenses.¹⁶ PG&E recommends considering the 2020 DRAM results alongside 2020 DRAM contract administration costs and a portion of the Rule 24 systems costs for a more comparable figure.¹⁷

I. Request for Commission Approval

PG&E requests that the Commission approve the 2020 DRAM Purchase Agreements through a disposition letter issued by the Director of Energy Division within thirty (30) days of the date of this Advice Letter, with the disposition letter finding that:

1. Each of the submitted 2020 DRAM Purchase Agreements is approved in its entirety, including payments to be made by PG&E pursuant to each Purchase Agreement, subject to the Commission's review of PG&E's administration of the Purchase Agreement; and

¹⁶ Per Resolution E-4728 and guidance provided by the Energy Division on May 19, 2016, PG&E provides the cost component of the Program Administration Cost (PAC) test of the DR Cost Effectiveness Protocols for the Base Interruptible Program, the Capacity Bidding Program, and SmartAC.

¹⁷ PG&E has been authorized approximately \$28.5 million to support Rule 24 direct participation through 2020, including budgets authorized by D.15-03-042, D.16-03-008, D.16-06-008, D.16-06-029, D.17-12-003, Resolution E-4837, Resolution E-4868, Resolution E-4912, Resolution E-4974, and Resolution E-4983. The \$28.5 million estimate does not include funding authorized by D.17-12-003 or Resolution E-4837 for years 2021-2022 or the pending Click-Through Application, A.18-11-015.

2. The competitive solicitation and offer selection process for the 2020 DRAM RFO was consistent with PG&E's approved 2020 DRAM Program Solicitation Protocol, and that the price of delivered RA is reasonable and prudent.

V. Request for Confidential Treatment

In support of this advice letter, PG&E provides the following confidential information: executed 2020 DRAM Purchase Agreements, information about the participants and offers submitted in response to PG&E's 2020 DRAM RFO including the evaluation and analysis of the value of such offers, information that more specifically describes the value of the energy procured in terms of the rights and obligations of the parties, and the confidential results of the solicitation.

A Declaration Seeking Confidential Treatment is submitted in support of this advice letter, as required by D.08-04-023, OP 8, to demonstrate the confidentiality of material and to invoke the Commission's protection of confidential utility data and information provided under D.06-06-066 (see, Appendix 1 ("IOU Matrix")) and Appendix C of D.08-04-023, or General Order 66-D.

Confidential Attachments:

Confidential Appendix A: 2020 DRAM Offers Received and Shortlisted

Confidential Appendix B: Valuation Process Summary

Confidential Appendix C: 2020 DRAM Evaluation Metrics

Confidential Appendix D: Independent Evaluator Report (Redacted version included with public submittal)

Confidential Appendix F: Executed 2020 DRAM Purchase Agreements

VI. Protests

Anyone wishing to protest this submittal may do so by letter sent via U.S. mail, facsimile or E-mail, no later than January 30, 2020, which is 20 days after the date of this submittal. Protests must be submitted to:

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

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

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

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

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

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

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

VII. Effective Date

PG&E requests that this Tier 1 advice submittal become effective upon date of submittal, which is January 10, 2020.

VIII. Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and the parties on the service list for A.17-01-012 et al. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter submittals can also be accessed electronically at: <http://www.pge.com/tariffs/>.

/S/

Erik Jacobson
Director, Regulatory Relations

Attachments

cc: Aloke Gupta – Energy Division
Maryam Mozafari – Energy Division
Christian Knierim – Energy Division
Service List for A.17-01-012 et al

Limited Access to Confidential Material:

The portions of this advice letter marked Confidential Protected Material are submitted under the confidentiality protection of Section 454.5(g) of the Public Utilities Code and General Order 66-D. This material is protected from public disclosure because it consists of, among other items, the Purchase Agreements themselves and price information of a proposed 2020 DRAM Purchase Agreement, and competitive solicitation information, which are protected pursuant to D.06-06-066 and D.08-04-023. Separate declarations seeking confidential treatment of sensitive information of entities not regulated by the Commission are being submitted concurrently to Energy Division.

Attachments Publicly Submitted with the Advice Letter:

Redacted Appendix D: Independent Evaluator Report of Merrimack Energy Group, Inc.
Appendix E: PG&E's Pro Forma 2020 DRAM Purchase Agreement
Appendix G: Confidentiality Declaration and Matrix

Attachments Submitted on a Confidential Basis with the Advice Letter:

Confidential Appendix A: 2020 DRAM Offers Received and Shortlisted
Confidential Appendix B: Valuation Process Summary
Confidential Appendix C: 2020 DRAM Evaluation Metrics
Confidential Appendix D: Independent Evaluator Report of Merrimack Energy Group, Inc.
Confidential Appendix F: Executed 2020 DRAM Purchase Agreements



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) #: 5736-E

Tier Designation: 1

Subject of AL: PG&E's 2020 Demand Response Auction Mechanism Purchase Agreements

Keywords (choose from CPUC listing): Compliance, Agreements

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

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #: D.19-07-009

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

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

Confidential treatment requested? ☒ Yes ☐ No

If yes, specification of confidential information: See Confidentiality Declaration and Matrix in Appendix G
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: Neda Oreizy, (415) 973-4534

Resolution required? ☐ Yes ☒ No

Requested effective date: 1/10/20

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

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

Clear Form

Confidential Appendix A

2020 DRAM Offers Received and Shortlisted

Confidential Appendix B

Valuation Process Summary

Confidential Appendix C

2020 DRAM Evaluation Metrics

Redacted Appendix D

Independent Evaluator Report of Merrimack Energy Group, Inc.

Public

*Pacific Gas & Electric Company
2020 Demand Response Auction Mechanism (DRAM 5)
Request for Offers*

*Final Report of the Independent Evaluator
On the Bid Evaluation and Selection Process*

January 10, 2020

*Prepared by
Merrimack Energy Group, Inc.*



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APPENDICES

Appendix A – PG&E – Offers Received for DRAM 5 RFO

Appendix B – PG&E – Summary of Contracts Executed

I. Introduction

A. Overview of the 2020 Demand Response Auction Mechanism (DRAM) Pilot Program

On October 11, 2019, Pacific Gas & Electric Company (“PG&E” or “Company”) issued its 2020 Demand Response Auction Mechanism Request for Offers (“RFO”) Solicitation Protocol (“DRAM 5 RFO” or “2020 DRAM RFO”).¹ The intent of the DRAM 5 RFO is to solicit offers from participants in the RFO (“Participants” or “Bidders”) to provide resource adequacy (“RA”) capacity (“Product”) to the three Investor Owned Utilities (“IOUs”) under a standard form, non-negotiable purchase agreement (“PA”). Through the DRAM 5 RFO process, PG&E is seeking to procure System and Flexible RA capacity products. System Capacity Product shall be bid as Proxy Demand Resources (“PDR”). The Solicitation Protocol describes the process by which PG&E seeks, evaluates, and accepts Offers from successful Participants (“Sellers”) who will bid PDR resources into the California Independent System Operator (“CAISO”) wholesale market.

Flexible Capacity Product may be Category 1 (base ramping), Category 2 (peak ramping), or Category 3 (super-peak ramping), and must meet the qualifications set forth in the CAISO’s most recent tariff. All Capacity Products must meet the must-offer-obligations set forth in the CAISO Tariff section 40.6 based on their respective resource classification (e.g. PDR).

The 2020 DRAM RFO is governed by CPUC Decision 19-07-009 as modified by Decision 19-09-041 which instructs the IOUs to procure 2020 capacity from conforming offers up to their authorized budget caps (\$5.70 million for PG&E). The IOUs are also not obligated to select offers that exceed the long-term avoided cost of generation (also referred to as “long-run avoided cost” or “LRAC”) or offers that have outliers for one or more of the monthly capacity prices.

The DRAM RFO solicitations are a pay-as-bid solicitation in which the utilities seek to acquire monthly demand response (DR) system capacity, local capacity and flexible capacity as applicable,² which contributes to the utilities resource adequacy obligations in the various solicitations. Participants will bid aggregated demand response directly into the CAISO energy market and any resulting revenues or liabilities shall solely be that of the Participant. The utilities acquire the capacity and receive resource adequacy credits for it but have no claim on revenues the winning bidders may receive from the energy markets. Capacity offered may vary by month and may be offered during one or more months from June 2020 to December 2020 but must include delivery during the month of August 2020.

Participants must comply with the eligibility requirements listed in PG&E’s Solicitation Protocol. Participants not complying with these requirements could be deemed ineligible and their offers may not be considered.

¹ Southern California Edison Company (“SCE”) and San Diego Gas & Electric Company (“SDG&E”) also issued their 2020 DRAM RFO’s on the same day as planned.

² For the DRAM 5 RFO only system and flexible capacity are eligible.

The following eligibility requirements are listed in PG&E's DRAM 5 RFO Solicitation Protocol:

- In order to participate in the CAISO market, each CAISO resource must be: (1) at least 100 kW per PDR; (2) composed of retail customers within PG&E's service territory; and (3) within the same CAISO Sub Load Aggregation Point (SubLap), as that term is defined in the CAISO Tariff;
- At a minimum, each bidder's offer must include Product for August 2020;
- A single offer may consist of multiple PDRs;
- Each Bidder's offer may contain a portfolio of Product types. For example, one bidder's offer may comprise 5 MW of System Capacity as well as 2 MW of Flexible Capacity (Flexible Category 3) with System Capacity, using a unique customer set for each of these Products;
- A maximum of 20 offers may be accepted per bidder. All offers should be provided on a single Offer Form spreadsheet;
- If PG&E selects multiple offers from a bidder, PG&E may stipulate the order in which the offers must be accepted by the bidder, based on PG&E's offer ranking methodology. For example, if a bidder's offer #1 has a greater Net Market Value to PG&E than the bidder's offer #2, PG&E may stipulate that the bidder cannot contract offer #2 unless it also contracts for offer #1;
- PG&E will presume all bidder's offers are independent of each other. If this is not the case, it must be explained in the Offer Form;
- Offers may be for Residential Customer or Non-Residential Customer Products and must be identified as such in the Offer Form. A Residential Product is that which is defined in the CPUC Resolution E-4728 as: "a minimum of 90% of customers on residential tariffs and no more than 10 percent of customers on small commercial tariffs";
- Bidders must self-identify qualifications as a New Market Entrant in the Offer Form utilizing the CPUC-approved definition: a new market entrant is defined as a Provider who has not integrated any demand response resources into the CAISO market during the three years prior to a new Auction Mechanism solicitation involving any form of market-integrated demand response including, but not limited to, the Demand Response Auction Mechanism or other resource adequacy contracts. PG&E may request additional information for verification purposes;
- PG&E's acceptance of offers will be subject to the CPUC budget limitations;
- PG&E's acceptance of offers is subject to the CPUC requirement that at least 10% of all MW procured come from New Market Entrant bids, unless this is impossible due to bids received, CPUC-approved budget, or other price constraints approved in D.19-07-009;
- The Delivery Period for this RFO's Products will be no earlier than June 1, 2020 and no later than December 31, 2020;
- The bidder must submit its offer via the Attachment A, Offer Form, providing a Monthly Quantity (Capacity kW) and Contract Price (\$/kW) for each applicable Showing Month (June 2020 – December 2020). If the bidder does not wish to

offer Product during a particular month, excluding August 2020, it should include a zero for that month in the Offer Form;

- If a Seller does not have a credit rating by S&P or Moody's, or its credit rating is below BBB- from S&P and Baa3 from Moody's if rated by both S&P and Moody's, Seller shall provide and maintain collateral with PG&E per the terms of the PA;
- The PA is a non-negotiable form agreement.

Participants must submit Offers to sell Product to PG&E using the 2020 DRAM Agreement. The DRAM Agreement is a standard form, non-negotiable purchase agreement and is available on PG&E's DRAM RFO Website. Accordingly, all purchases will be made according to the terms and conditions set forth in the PA.

In order to comply with D.19-07-009, bidders are required to submit estimates of qualifying capacity (QC) for each offer submitted into the DRAM solicitation. These estimates shall be based on historical information, where available, and otherwise, publicly available performance data that best represents the anticipated performance of the resource. A bidder's failure to provide this information would not comply with D.19-07-009, which would disqualify the bidder's offer. Firewalled staff at PG&E is required to review the bidder's QC estimates, and may not share such information with PG&E staff that manage PG&E's demand response program.

The RFO documents and information available to Participants include: (1) 2020 DRAM RFO Protocol; (2) Attachment A - Offer Form; (3) Attachment C - DRAM Standard Purchase Agreement; (4) Attachment B – Corporate Structure and Financials; and (5) Attachment D – Qualifying Capacity Assessment Template. In addition, PG&E's DRAM webpage includes other information to assist Participants. This information is identified in Section III.A of this report.

The RFO also outlines the evaluation criteria to be applied to evaluate and select the shortlisted offers from those submitted. The RFO states that PG&E will evaluate and rank conforming offers using quantitative and qualitative criteria outlined in the RFO Protocol.

PG&E will perform a quantitative evaluation of each conforming offer and rank those offers based on each offer's Net Market Value ("NMV") per unit – from highest to lowest – in dollars per kilowatt-contract term (\$/kW-contract term). The NMV in \$/kW-contract term is calculated using total NMV in dollars for the numerator, and total offered monthly volume in kilowatts for the denominator to derive volume weighted average NMV in \$/kW-contract term, which is then multiplied by 7. The result of the quantitative analysis is a merit-order ranking of all complete and conforming offers.

Net Market Value³ is defined as Benefits minus Costs. PG&E will calculate an offer's benefits using its forecast capacity market value for each type of Product in the offer, e.g. System Capacity and/or Flexible Capacity. An offer's cost will be determined by multiplying (a) the offer's volume per Product per month by (b) the offer's price per Product per month, then summing all of these monthly values together.

³ Monthly benefits and costs are discounted using PG&E's after-tax weighted average cost of capital.

For the 2020 DRAM RFO, PG&E will apply to each offer's cost, as appropriate, an adjustment based on the joint IOU DRAM qualitative assessment scoring matrix. An offer's cost in the NMV calculations will be adjusted with the following formula:

Adjusted Cost for each offer = Cost for each offer multiplied by the Qualitative Factor Adjustment for each offer, where

Qualitative Factor Adjustment for each offer = 1 + sum of (score for each offer multiplied by the weight).

Table 1 below lists the qualitative factors and weights applied by PG&E in this solicitation.

Table 1: Qualitative Evaluation Criteria

		Score	Score	Weight	Weighted Score
	Answer	Yes	No		(Score x weight)
Small Business					
Are you a certified small business	Yes/No	1	0	-1%	
Prior Experience					
Have you willfully terminated or defaulted on a past DRAM PA? or Have you submitted offers that demonstrated bidding behavior providing clear evidence of market manipulation or collusion? ⁴	Yes/No	1	0	15% cost if any or multiple of these conditions are met	
Have you not signed a DRAM PA when extended a shortlist offer? or If you currently have or previously had a 2019, 2018-2019, or 2017 DRAM contract, have you delivered Supply Plans to the IOUs for DRAM	Yes/no	1	0	5%	

⁴ This criterion must be applied in agreement with the Energy Division and the Independent Evaluator for DRAM.

totaling, in aggregate, less than 50% of the contracted capacity for all months in your most recent DRAM contract term, at the time of offer submittal? ⁵					
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As an example of how the qualitative criteria will be applied, a bidder who violates the two experience criteria will have an evaluation score for rank order purposes that is based on total cost of the offer times 1.2. The higher cost is used in conjunction with the benefits associated with the offer to derive the NPV \$/kW-contract term quantitative value.

DRAM offers will be selected according to the following method:

1. Offers shall be ranked by NMV, adjusted for the qualitative criteria;
2. PG&E shall select offers up to their authorized budget, net of administrative cost;
3. PG&E may elect to not select an offer if:
 - a. The offer's price is above the long-term avoided cost of generation;
 - b. One or more of the monthly capacity prices of the offer are outliers;

The IOUs shall make such exceptions in consultation with the Procurement Review Group ("PRG") and with the approval of the Energy Division ("ED").

Pursuant to regulatory requirements of the CPUC, PG&E retained Merrimack Energy Group, Inc. ("Merrimack Energy") as the Independent Evaluator ("IE") for this market solicitation.⁶

B. Cumulative DRAM Procedural History and Regulatory Requirements (Orders and Resolutions)

On September 19, 2013, the CPUC issued an Order Instituting Rulemaking (OIR) in Decision (D.) 13-09-011 to enhance the role of Demand Response (DR) in meeting the state's resource planning needs and operational requirements. In this rulemaking proceeding, CPUC Staff proposed that a Demand Response Auction Mechanism (DRAM)⁷ be used to obtain a new resource comprising Demand Response resources which would be aggregated as PDRs or RDRRs by third parties in order to participate directly in the CAISO Day-Ahead or Real-Time Energy Markets⁸. Once selected in the DRAM, these third-party aggregators would be paid by the DRAM IOU buyers for the Resource Adequacy (RA) attributes of their DRs with capacity payments bid into the DRAM. CAISO energy settlements would be retained by the third parties as a part of their compensation stream.

⁵ For example, if you have a 2019 DRAM contract and also had a 2017 DRAM contract, then the 2019 DRAM contract would be applicable for the assessment of this qualitative criteria.

⁶ Merrimack Energy was retained by all three IOUs for this assignment. Merrimack Energy has also served as IE for the previous four DRAM Pilot solicitations.

⁷ The DRAM was formally introduced by the CPUC in D. 14-03-026 (March 27, 2014), as described further below.

⁸ Bidding Demand Response into the CAISO market has been a CPUC objective since 2007. Finding of Fact 12, D. 14-12-024.

In D. 14-12-024 (December 4, 2014), the CPUC resolved various issues in the evolving phases of the rulemaking⁹, modified an attached Settlement Agreement entered into by the majority of the parties and directed that the DRAM be instituted as a two-year pilot during 2015 (“2016 DRAM”) and 2016 (“2017 DRAM”)¹⁰. In D. 14-12-024, Ordering Paragraphs 5 and 6, the utilities were ordered to file an advice letter for the DRAM, together with a standard pro-forma contract and to work collaboratively with stakeholders in the DRAM pilot design working group.

2016 DRAM (DRAM 1 RFO)

In their Tier Three Advice Letter filed for the 2016 DRAM on April 20, 2015 (“April 20 Advice Letters”)¹¹, Southern California Edison Company (SCE), Pacific Gas and Electric Company (PG&E), and San Diego Gas & Electric Company (SDG&E) described the DRAM Pilot design as follows:

“The DRAM will be a pay-as-bid auction of monthly system Resource Adequacy (RA) associated with a demand response product located in the IOU’s service area that will offer the product directly into the CAISO day-ahead energy market. The IOUs will acquire the RA only and will have no claim on revenues the winning bidders may receive from the CAISO energy market.” AL 3208-E, p. 3.

In Resolution E-4728 (July 27, 2015), the 2016 DRAM Pilot as proposed pursuant to D. 14-12-024 and the April 20, 2015 Advice Letters 3208-E, 4618-E and 2729-E, was approved with modifications. Resolution E-4728 resolved open issues arising from the April 20 Advice Letters as follows¹²:

- The DRAM would be a two-year pilot program that was designed to enable DR wholesale market participation by providing a competitive means to a capacity contract outside of any IOU DR program;
- The minimum target for the 2016 DRAM Pilot was 22 MWs across all three IOUs. No cap for DRAM procurement was detailed in D.14-12-024. AL 3208-E et al states that winning bids are limited by either the budget or the applicable Commission authorized maximum for Rule 24 registrations;

⁹ The phases of the Rulemaking proceeding were the subject of a series of scoping memoranda and associated orders: October 24, 2013 Ruling and Scoping Memo; D. 14-01-004 (addressing Phase One issues); D. 14-05-025 (addressing Phase One issues and closing Phase One); D. 14-03-026 (addressing Phase Two issues and determining that demand response programs should be bifurcated beginning in 2017 into load modifying resources and supply side resources); and April 2, 2014 Ruling and Revised Scoping Memo (addressing the continuation of Phase Two and the Phase Three scope and schedule).

¹⁰ D. 14-12-024 Findings of Fact 31-38; Conclusions of Law 14; Ordering Paragraphs 5-6, 10-13 (more general back up generation issues).

¹¹ AL 3208-E (Southern California Edison Company); AL 4618-E (Pacific Gas and Electric Company); AL 2729-E (San Diego Gas & Electric Company).

¹² The contents of the Tier 1 Advice Letter accompanying the executed DRAM contracts and a Supplemental Advice Letter filed 30 days after the Resolution were also set forth in Resolution E-4728, Ordering Paragraphs 16 and 22.

- The CPUC encouraged the IOUs to procure viable bids beyond the 22 MW minimum authorization, up to either the applicable Rule 24 registration limit or budget limitation¹³;
- Bidders would have to demonstrate that they were not relying on fossil-fueled Back-up Generators (BUGs) for the performance of their PDRs;
- While fossil-fueled BUGs were not allowed in the DRAM program, storage was allowed and encouraged;
- The IOUs' request for a waiver of RA penalties for any failure of DRAM Sellers to deliver was granted for the limited purpose of the Pilot¹⁴;
- DRAM contracts must adhere to RA criteria, as well as CAISO obligations and criteria;
- DRAM customers would not need to be known in advance of contract execution and certain provisions proposed to allow existing DR customers to migrate to DRAM were approved;
- Net Metering Customers would be allowed to participate in the DRAM program;
- A residential set-aside (without any cost cap¹⁵) was approved equal to 20% of the total MWs procured¹⁶ for each IOU for residential customers (defined as aggregations of at least 90% residential customers). The purpose of the set-aside was to attract new market players to the DRAM and test the participation of residential aggregations in the DRAM mechanism. In other words, if the IOUs collectively procure 50 MWs worth of DRAM bids, then 10 MWs should be reserved for the residential set-aside;
- The IOUs were directed to each inform the CPUC's Energy Division immediately if there are bids that it wished to reject that are either clear outliers or where there was evidence of market manipulation, present those bids and explain the reasons for rejection in advance of actually rejecting the bids;
- AL 3208-E et al stated that cost-effectiveness evaluation did not apply to pilots. However, for purposes of fully analyzing the costs and benefits of the program, the IOUs were also required to file a benchmark capacity calculation using the relevant version of the cost effectiveness protocols approved by the Commission at the time of filing the signed DRAM pilot contracts. The IOUs were also required to file benchmark calculations of the capacity value of the IOUs comparable DR programs;
- In D.14-12-024, the DRAM working group was directed to develop transparent standard evaluation criteria. AL 3208-E et al proposed a quantitative criterion, which included bid price, weighted by month of delivery and scheduling coordinator costs, and a list of standard qualitative criteria which may be weighted, and therefore applied differently at each IOU's discretion;
- The IOUs were directed to develop a clear scoring matrix for each criterion, in a table format, with a numeric score to be assigned to each variable. This matrix must include all criteria that will be used in scoring DRAM bids, and must be made

¹³ Resolution E-4728, Ordering Paragraph 14.

¹⁴ Resolution E-4728, Ordering Paragraph 6.

¹⁵ Resolution E-4728, Finding Paragraph 29.

¹⁶ Resolution E-4728, Finding Paragraph, 30.

available to bidders, incorporated into bid documents and explained at DRAM Bidders conference(s);

- The DRAM Contract provision (§3.3) requiring Seller performance and other data requested by the CPUC was allowed as modified; the provision (§5.7) requiring financial information for possible balance sheet consolidation was approved as modified by mutual agreement; and the provision (§3.3(b)) requiring load impact analysis was ordered to be removed¹⁷;
- Winning bids would be limited as a practical matter to either the budget authorized in D. 14-12-024 or the applicable Rule 24/32 maximum registrations;
- The request of the IOUs to select the next best DRAM bid if a short-listed bid discontinues participation in the DRAM auction was accepted;
- In addition to signed DRAM contracts, the IOUs were required to file all bids received for the DRAM pilot;
- The Resolution required that the IE Report include both (1) an assessment of the effectiveness of the set-aside in attracting aggregations of residential customers and (2) recommendations for how the set-aside can be improved to better attract residential aggregations in subsequent rounds of the DRAM;

The 2016 DRAM was launched on September 28, 2015, with a deadline for the submission of 2016 Offers of October 26, 2015. The 2016 DRAM covered the delivery period from June 1, 2016 through December 31, 2016. PG&E executed (12) 2016 DRAM PAs with six (6) counterparties for a total of 17.17 MW at a total cost of [REDACTED]. Residential accounts represented 23% of August capacity.

2017 DRAM (DRAM 2 RFO)

On October 9, 2015, SCE, on behalf of itself, PG&E and SDG&E, filed a Tier 3 Advice Letter (AL 3292-E for SCE; AL 4719-E for PG&E; and AL 2796-E for SDG&E) (the “2017 DRAM Advice Letter”) with respect to the second year of the DRAM Pilot, together with proposed changes to the standard DRAM Resource Purchase Agreement. Subsequently on January 28, 2016, the CPUC issued Resolution E-4754, approving with modifications the second year of the DRAM Pilot Program (“2017 DRAM”).

In compliance with OP 12 of Resolution E-4728, the 2017 DRAM Advice Letter focused on including Local RA and Flexible RA in the 2017 DRAM, aligning the DRAM pilot with the year-ahead RA process, incorporating changes to law or regulation that could impact the second year of the DRAM pilot, and addressing the inclusion of RDRRs.¹⁸

Resolution E-4754

On January 28, 2016, the Energy Division of the CPUC approved, with modifications, the 2017 DRAM Advice Letters for SCE, PG&E and SDG&E (AL 3292-E for SCE; AL 4719-

¹⁷ Resolution E-4728, Finding Paragraph 7, Ordering Paragraph 5.

¹⁸ Resolution E-4817, issued on January 20, 2017 identified the two primary differences between the DRAM I and DRAM II pilots as: (1) in DRAM II a Seller could elect to offer deliveries over 12 months, from January to December; (2) DRAM II allowed for local and flexible resource adequacy offers, in addition to system capacity.

E for PG&E; and AL 2796-E for SDG&E) and ordered the filing of supplemental Advice Letters within 30 days of the CPUC vote on Resolution E-4754. Among the findings and ordering paragraphs, Resolution E-4754 contained several principal orders:

- The IOUs' non-binding cost estimates of \$6 million each for PG&E and SCE and \$1.5 million for SDG&E, for a total of \$13.5 million, were approved and their request to expend 2015-2016 bridge year funds in 2017 for purposes of funding the DRAM, was also approved;
- The minimum procurement targets of 10 MWs each for SCE and PG&E, and 2 MWs for SDG&E, were retained for the 2017 DRAM. As with the 2016 DRAM, the IOUs were encouraged to procure up to the 2017 budget limitation or the available authorized Rule 24 registrations, whichever comes first;¹⁹
- The CPUC required the IOUs to make all revisions and modifications to the pro forma contract as prescribed in this Resolution in a Supplemental Advice Letter. Revisions were required for the pro forma contract in Sections 7.2(b)(v), Section 3.3(c), Section 3.4(a), Section 3.5, and Section 1.5;
- Unless explicitly modified or revised herein, the provisions, directions, and rules that were adopted for the 2016 DRAM RFO shall apply for the 2017 DRAM RFO.

In accordance with Resolution E-4754, conforming Supplemental Advice Letters were filed on February 8, 2016 by the IOUs (Supplemental AL 3292-E-A for SCE; Supplemental AL 4719-E-A for PG&E; and Supplemental AL 2796-E-A for SDG&E).

The DRAM 2 solicitation was conducted over the period March through July of 2016. On October 3, 2016, the CPUC issued Resolution E-4803 which approved with modifications, the request of PG&E for approval of 14 contracts with five counterparties resulting from the 2017 DRAM as submitted in PG&E's Advice Letter 4880-E. The Resolution also required PG&E to procure additional resources from the 2017 DRAM solicitation up to either the approved amount of Rule 24/32 registrations or the approved budget cap of \$6 million. PG&E ultimately executed twenty-seven contracts with six counterparties for a total of 56.4 MW at a cost of [REDACTED]. For the DRAM 2 process, residential accounts represented 21% of total August volumes.

2018 – 2019 DRAM (DRAM 3 RFO)

On June 9, 2016 in Decision D.16-06-029, the Commission stated that it anticipated issuing a decision in this proceeding that will provide guidance to the utilities for their demand response program year 2018 and beyond applications. The Commission stated that it cannot determine whether a DRAM will be adopted by the Commission for 2018 and beyond programs. However, given the apparent success of the 2016 auction process and the anticipated potential for the 2017 auction process, the Commission found that it was

¹⁹ As a general ordering principle, the IOUs were instructed, "Unless explicitly modified or revised herein, the provisions, directions and rules that were adopted for the 2016 DRAM RFO shall apply for the 2017 DRAM RFO."

reasonable and prudent to continue, at the very least, the current form of the DRAM as a pilot (pages 43-44). The utilities were authorized a budget of \$27 million, double the current budget, for the continuation of this pilot in the following breakdown for the utilities: \$3 million for SDG&E and \$12 each for PG&E and SCE for the 2018-2019 DRAM solicitation. In response to comments by ORA and the utilities, the Commission stated that it agreed that with the third auction pilot, it was important for the utilities to be prudent and sensible in selecting and approving bids. Utilities were instructed to ensure that the bids fit portfolio needs and offer the best value to the ratepayers.

The Decision also required the three utilities to file, no later than September 1, 2016, a tier three advice letter requesting adoption of a proposal for a third demand response auction mechanism pilot. Advice Letter 4900-E, filed on September 1, 2016 suggested changes in the DRAM pilot program in the following areas:

- Modifications to product design;
- Demonstrated capacity and performance testing requirements, including stricter performance requirements;
- Potential legal and regulatory changes and their impacts
 - CAISO market changes associated with resource adequacy and must offer obligation requirements
 - Seller's provisions of information to buyers to support customer eligibility for other IOU programs;
- Solicitation protocols and valuation criteria
 - Refinements to qualitative criteria
 - Contract price averaging
 - Potential limitations on RDRR
 - Available Rule 24/32 registrations
- Contract terms and miscellaneous issues

Resolution E-4817

Resolution E-4817, issued on January 20, 2017 approved, with modifications, the IOU's proposals for the DRAM 2018-2019 pilot (DRAM 3 RFO) contained in Advice Letter 3466-E, including modifications associated with auction design, protocols, standard pro forma contract, evaluation criteria, and non-binding cost estimates. The Ordering paragraphs in the Resolution included the following provisions and requirements for the DRAM 3 RFO process:

- The IOUs shall ensure that the availability of customer registrations does not limit 2018-2019 DRAM pilot procurement;
- The IOUs will procure 2018-2019 DRAM resources up to an approved budget limit of \$27 million across the three IOUs, including \$3 million for SDG&E and \$12 million each for SCE and PG&E, or to a point at which there was a clear price outlier in bids, whichever comes first. To reject a bid based on an assessment that it represented a price outlier, the IOUs would first discuss with the Energy Division, and Energy Division must agree, before rejecting the bid;

- The bid selection criteria should be fully transparent and available to all potential bidders at the time of the 2018-2019 DRAM RFO, including maintaining the qualitative criteria approved and providing information on how the IOUs will evaluate contract length;
- Authorize the IOUs to hold a secondary auction if either of the following conditions are met for their company: (1) if three or more sellers terminate at least one contract prior to the end of the stated contract length if, as a result of Commission or CAISO rule changes, their DR resources would no longer meet Commission or CAISO requirements without penalty; or, (2) if, following Commission or CAISO rule changes that create the same conditions, Sellers terminate contracts representing a minimum of twenty five percent of the August 2018 or 2019 contracted capacity (MW);
- The Commission approved the IOUs proposal that Sellers be permitted to terminate their contracts or reduce contract capacity at no penalty if CAISO rule changes negatively impact their ability to deliver the capacity and energy as indicated, if notice is provided by August 1 of the year prior to the delivery year;
- Agreed with the IOUs regarding modifications to the qualitative criteria to reflect a downgrade in the score of bidders who have failed to deliver or perform in other DRAM RFOs, or demonstrated non-competitive behavior. The Commission agreed with the IOUs that prior experience with delivery shortfalls is an acceptable qualitative criterion. The Commission directed the IOUs to work with the Energy Division Staff and the IE to identify any bidders to which the non-competitive behavior criterion will be applied and to notify any bidders to whom it is found to apply of this finding at least one week in advance of the 2018 DRAM RFO.

The Resolution also identified the differences between DRAM 2 and DRAM 3.²⁰ “In DRAM 3, (1) Sellers were required to differentiate between a Proxy Demand Resource (PDR) and a Reliability Demand Response Resource (RDRR); (2) scheduling coordinator costs were now to be bid as part of the product capacity costs; (3) an option was available for Sellers to offer a Flexible Capacity Category 1 product; (4) a DRAM Seller may now elect to offer deliveries of a maximum of two years through December 2019; (5) utilities have enhanced testing requirements to a minimum of one each August (2018 and 2019), if Full Dispatch has not occurred; and (6) Sellers must show Demonstrated Capacity if a test or Full Dispatch occurs during a month.

The IOUs submitted modifications to DRAM contracts and related documents in compliance with Resolution E-4817 on February 2, 2017 via Supplemental Advice Letter 4900-E-A. On March 7, 2017, the CPUC issued a letter to the IOUs instructing them to launch the 2018-2019 DRAM RFO on March 10, 2017, as outlined in Resolution E-4817.

The DRAM 3 solicitation was conducted over the period March through July of 2017. PG&E executed contracts representing 79.5 MW in August 2018 capacity and 90 MW in

²⁰ Resolution E-4817 also identified the differences between the first DRAM pilot and the second DRAM pilot (DRAM 1 and DRAM 2). These include: (1) in DRAM 2 a Seller could elect to offer deliveries over 12 months, from January to December as opposed to a partial year in DRAM 1; and (2) DRAM 2 allowed for local and flexible resource adequacy offers, in addition to system capacity.

August 2019 capacity for a total cost of [REDACTED]. For the DRAM 3 process, residential accounts represented 24.1% of total August volumes in 2018.

2019 DRAM (DRAM 4)

Decision 16-09-056

On October 5, 2016, in Decision Adopting Guidance for Future Demand Response Portfolios and Modifying Decision 14-12-024 (Decision 16-09-056) the Commission provided directives regarding Demand Response auctions, including the following:

- The Commission maintained the 20% set-aside for residential customers;
- The utilities are directed to offer annual auctions and must offer contracts to all complying bids up to the simple average August capacity bid price. The simple average bid price shall be calculated by:
 - Excluding the top 10% of August bids offered
 - Totaling all remaining August bid prices, and
 - Dividing by the number of bids

Decision D.17-10-017

In Decision 17-10-017, issued on November 1, 2017, the Commission ordered with respect to the DRAM auction process:

1. The utilities shall conduct an additional demand response auction in 2018 for deliveries in 2019 in accordance with the procurement budget, guidelines and all other parameters adopted herein;
2. The total budget authorized for a 2018 solicitation in the demand response auction mechanism pilot is \$6 million each for SCE and PG&E and \$1.5 million for SDG&E;
3. The utilities shall recover the costs of the additional 2018 demand response auction mechanism pilot solicitation using the same mechanism as that used for the auction approved in Decision 16-09-029;
4. The utilities shall utilize the final approved 2017 demand response auction mechanism guidelines for the additional demand response auction in 2018 for 2019 deliveries, except that contract terms shall be limited to one year of delivery for 2019;
5. The utilities shall offer contracts to all complying bids up to the simple average August capacity bidding price or the budget cap, whichever comes first;
6. The utilities shall work with the Energy Division staff to ensure they use capacity values in bid selection criteria that appropriately prioritize bids for local resource adequacy; and
7. The utilities shall launch the additional 2019 auction no later than February 1, 2018 and shall submit their advice letters for approval of the auction results no later than May 1, 2018.

The DRAM 4 solicitation was conducted over the period January through March of 2018. PG&E executed contracts representing 72.7 MW of capacity in August 2019 for a total cost of approximately [REDACTED]. For the DRAM 4 process, residential accounts represented 26.0% of total August capacity volumes in 2019.

2020 DRAM (DRAM 5)

In late 2016 in D.16-09-056, the Commission directed Energy Division Staff to “conduct an independent analysis of the 2015 DRAM and 2016 DRAM pilot auctions and the subsequent deliveries” and present its findings and recommendations on whether to proceed from a pilot to permanent implementation of the mechanism to the Commission. On January 4, 2019, an Administrative Law Judge issued a ruling releasing the final report of the Energy Division’s Evaluation of Demand Response Auction Mechanism (Evaluation Report). The ruling also noticed upcoming workshops. Three days of workshops were held in January and February of 2019 to discuss the evaluation and proposed improvements to the DRAM process. Following the workshops, the Administrative Law Judge issued a February 28, 2019 Ruling directing parties to respond to a series of questions. The Ruling allowed parties to provide general comments on the Evaluation Report and party proposals discussed during the workshops. Parties filed responses to the ruling on March 29, 2019. Reply comments were filed on April 10, 2019.

Approximately fifteen organizations participated in the workshops. Participants discussed a number of issues related to the Auction Mechanism including the goals and objectives for the DRAM, Evaluation Report and working group proposals to ensure Qualifying Capacity, proposals to improve performance, and proposals for contract improvements as well as a timeframe for adopting the changes.

Decision 19-07-009

Decision 19-07-009 was issued on July 12, 2019 and required a number of revisions to the Demand Response Auction Mechanism solicitation process including the following:

- The Decision approved a four-year continuation of the Auction Mechanism to improve identified shortcomings;
- The Decision authorized annual budgets of \$14 million for solicitations in 2020 through 2022 (to procure one-year capacity contracts) and a pro-rated budget of \$12.78 million for the 2019 solicitation to procure seven-month capacity contracts. For PG&E an annual budget of \$5.70 million was established;
- Established a schedule for the 2019 Solicitation with First Deliveries in 2020. Utilities required to launch Request for Offers for Deliveries beginning on June 1, 2020;
- Eliminate the August Bid Price Cap adopted in D.16-09-056;
- Replace the 20 percent residential set-aside with a 10 percent set-aside for new market entrants;
- Adopted items that received the most support from parties as critical improvements including providing accurate Qualifying Capacity for Supply Plans, imposing a penalty structure for shortfalls in Qualifying Capacity and Demonstrated Capacity,

calculating Demonstrated Capacity on invoices, and establishing invoice deadlines. Specific requirements listed in the Order include:

- Beginning with the 2019 Demand Response Auction Mechanism solicitation, Demand Response Providers shall be required to provide estimates of Qualifying Capacity for a resource by referencing historical performance data. Estimates should be consistent with the guidance provided in Appendix A of this decision. If historical performance data is not available, the Provider shall reference publicly available performance data that best represents the anticipated performance of the resource, while complying with the guidance provided in Appendix A;
- The Director of the Energy Division is authorized to work with parties to develop a standardized reporting format for Auction Mechanism Providers to submit the estimates of Qualifying Capacity;
- Exclude Reliability Demand Response Resources (RDRR);
- Publish Auction Mechanism contract summaries, consistent with D.06-06-066.

C. 2020 DRAM Schedule

In accordance with the applicable orders, resolutions and Advice Letters, each of the IOUs, including PG&E, adopted the following schedule listed in Table 2 below.

Table 2: 2020 DRAM Schedule

DRAM 5 RFO Event	Date
DRAM RFO Launch	October 11, 2019
DRAM RFO Pre-Bid Webinar Conference	October 18, 2019
Offer Due Date	November 7, 2019
PG&E Notifies Non-Conforming Bidders with Request to Cure	November 11, 2019
Bidder Cure Period Ends	November 18, 2019
Notice to Bidders of Selection; Send Final PA for execution	December 10, 2019
Deadline to Submit Signed PAs	December 17, 2019
Advice Letter Submitted with PAs	January 10, 2020

D. Issues Addressed in this Report

This report addresses Merrimack Energy's assessment and conclusions regarding the following issues identified in the Commission's CPUC Independent Evaluator Report Template:

1. Describe the role of the IE throughout the solicitation and negotiation process.
2. How did the IOU conduct outreach to bidders, and was the solicitation robust?

3. Describe PG&E's bid evaluation methodology. Evaluate the strengths and weaknesses of the methodology.
4. Evaluate the administration of the solicitation process including the fairness of the IOU's bidding and selection process (i.e. quantitative and qualitative methodology used to evaluate bids, consistency of evaluation methods with criteria specified in bid documents, etc.).
5. Describe any applicable project-specific negotiations. Highlight any areas of concern including unique terms and conditions.
6. If applicable, describe safeguards and methodologies employed by the IOU to compare affiliate bids or Utility-Owned Generation ("UOG") ownership proposals. If a utility selected a bid from an affiliate or a bid that would result in utility asset ownership, explain and analyze whether the IOU's selection of such bid(s) was appropriate.
7. Based on the complete bid process, is (are) the IOU contract(s) the best overall offer(s) received by the IOU?
8. Is the contract a reasonable way of achieving the need identified in the RFO?
9. Based on your analysis of the RFO offers, the bid process, and the overall market, do the contracts merit Commission approval?

All these issues are addressed in this report, generally in the order included in the CPUC Independent Evaluator Report Template.

II. Description of the Role of the IE throughout the Solicitation

In compliance with the above requirements, the California Investor-owned utilities ("IOU"), including PG&E, retained Merrimack Energy to serve as Independent Evaluator for PG&E's 2020 DRAM 5 RFO. Merrimack Energy was retained to provide an independent evaluation of the appropriateness of PG&E's proposal evaluation methodology and selection process for product offers and to provide PG&E, PG&E's Procurement Review Group ("PRG"), and the Energy Division with periodic presentations, findings and other reports as requested. The objective of the role of the IE is to ensure that the solicitation process is undertaken in a fair, consistent, unbiased and objective manner and that the best offers are selected and acquired consistent with the solicitation requirements.

This role generally involves an assessment of the solicitation documents, detailed review and assessment of the evaluation process, the results of the quantitative and qualitative (non-price) analysis, selection of the short list or preferred product options, and monitoring and assessment of contract negotiations or contract execution. For this solicitation,

Merrimack Energy was retained from the beginning of the process through contract execution. Merrimack Energy participated in meetings of the DRAM RFO teams comprised of representatives of all three utilities prior to receipt of offers and coordinated with all three utilities separately after submission of offers.

A. Regulatory Requirements for the Independent Evaluator

The requirements for participation by an Independent Evaluator (“IE”) in utility solicitations are outlined in decisions D.04-12-048 (Findings of Fact 94-95, Ordering Paragraph 28), D.06-05-039 (Finding of Fact 20, Conclusion of Law 3, Ordering Paragraph 8) of the California Public Utilities Commission (“Commission” or “CPUC”) and D.09-06-050.

The role of IE’s in California IOU procurement processes has evolved over the past thirteen years. In Decision 04-12-048 (December 16, 2004), the CPUC required the use of an IE by IOUs in resource solicitations where there are affiliates, IOU-built or turnkey bidders. The CPUC generally endorsed the guidelines issued by the Federal Energy Regulatory Commission (“FERC”) for independent evaluation where an affiliate of the purchaser is a bidder in a competitive solicitation, but stated that the role of the IE would not be to make binding decisions on behalf of the utilities or administer the entire process.²¹ Instead, the IE would be consulted by the IOU, along with the Procurement Review Group (“PRG”) on the design, administration, and evaluation aspects of the Request for Proposals (“RFP”). The Decision identifies the technical expertise and experience of the IE with regard to industry contracts, quantitative evaluation methodologies, power market derivatives, and other aspects of power project development. From a process standpoint, the IOU could contract directly with the IE, in consultation with its PRG, but the IE would coordinate with the Energy Division.

In the Advice Letter filed by the three IOUs on April 20, 2015, the IOUs indicated they planned to engage an IE to evaluate and report on the solicitation, evaluation, and selection for the DRAM Solicitation. A single evaluator will be used if one is on all IOU approved IE lists, if available, and using an IE is approved by the Commission through a Resolution to this Advice letter. The IE can be present at meetings and conference calls between the IOUs and bidders and will have full access to the solicitation management system used in DRAM. The IE will review all answers to questions to and may periodically make presentations to the IOUs, the CPUC and stakeholder groups to ensure that the DRAM solicitation remains open, fair, and transparent. The IE will also check for consistency in each IOUs application of its protocols and evaluation processes across bidders in its auction. The IE will review all offers and share findings about how the DRAM process worked and what could be improved. The IE will submit a confidential report and a public report on the auction process to be submitted with the contracts for approval by the CPUC.

Resolution E-4728: Approval with Modifications to the Joint Utility Proposal for a Demand Response Auction Mechanism Pilot Pursuant to Ordering Paragraph 5 of Decision

²¹ Decision 04-12-048 at 129-37. The FERC guidelines are set forth in Ameren Energy Generating Company, 108 FERC ¶ 61,081 (June 29, 2004).

14-12-024, issued by the CPUC on July 27, 2015 approved the IOUs request to employ an IE. In addition to the elements proposed in AL 3208-E et al, the IE's final report shall include:

- An assessment of the effectiveness of the IOUs' efforts in soliciting and attracting new DR participants, and recommendations for how to better attract new DR participants to the California market in subsequent rounds of the DRAM, and
- The effectiveness of the residential set-aside and recommendation for how to better attract residential customers to the California market in subsequent rounds of the DRAM.

Decision 19-07-009 (July 11, 2019) reiterated the role of the Independent Evaluator in the DRAM RFO solicitation process. The Decision stated (page 12) that an Independent Evaluator ensures reasonable and uniform treatment of all potential counterparties in the solicitation process; monitors Utilities solicitation processes, valuation methodologies, and selection processes; and reviews counterparties' bids to assure a fair competitive process with no market collusion or manipulation. The Independent Evaluator reports to the Commission on the auction process after the solicitation has been completed and winning bids have been selected.

This report is being filed consistent with the above requirements and is consistent with the requirements outlined in the CPUC's Short Form IE Report Template.

B. Description of IE Oversight Activities

The IE was involved in a number of activities and completed several specific tasks in performing its oversight role in connection with development of the DRAM 5 RFO process, including PG&E's evaluation methodology, and evaluation and selection process. The activities of the IE during the process are described below:

- Participated in utility DRAM team meetings prior to receipt of offers as well as conference calls in which the utilities discussed common issues;
- Reviewed and commented on the Draft DRAM 5 RFO Protocol documents for PG&E;
- Participated in PRG meetings prior to and during the solicitation process for each utility, including the PRG meetings at which the IOU's provided their proposed shortlist selections;
- Reviewed and discussed the bid evaluation methodology with all three utilities;
- Participated in the Pre-Bid Web Conference and provided comments on the presentation;
- Reviewed and commented on the Company's responses to bidder's questions;
- Reviewed and summarized the offers received to ensure the Company and IE identified and assessed the same list of offers;
- Reviewed the conformance assessment undertaken by each IOU and participated in discussions with the Utilities regarding conformance issues;
- Participated in calls regarding the DRAM 5 Solicitation with PG&E's project team;

- Reviewed and assessed PG&E's evaluation of the offers received for purposes of selecting the offers that would be included in the final shortlist. Participated in several conference calls with PG&E's project team and project staff to discuss the status of the offers and development of the shortlist options;
- Prepared the IE report for inclusion with the utility Advice Letter filings seeking approval for the contracts executed;

In addition to the above activities, PG&E's Contract Work Authorization for the IE for this assignment includes the following tasks for the IE:

- Advise on the consistency of solicitation activities with the CPUC's procurement-related rules and procedures and PG&E's Commission-approved procurement authority;
- Assist in the development, design, and review of the solicitation. Submit any recommendations to PG&E and/or CPUC consistent with the objective of ensuring a competitive, open and transparent process, and to ensure that the overall scope of the solicitation is not unnecessarily broad or too narrow;
- Monitor all communications and/or negotiations between PG&E and counterparties, as required by the solicitation's objectives as outlined in the solicitation Protocol and approved by the CPUC;
- Provide recommendations and reports, if required by PG&E and/or the CPUC, concerning the definition of products sought and price and non-price evaluation criteria; so that all aspects of the products are clearly understood and all bidders may effectively respond to the solicitations, as applicable;
- Review the comprehensive quantitative and qualitative bid evaluation criteria and methodologies applied to the 2020 Demand Response Auction Mechanism RFO and assess whether these are applied to all bids in a fair and non-discriminatory manner;
- Monitor the solicitation, bilateral negotiation and/or contract amendment processes;
- Provide presentations to PG&E's management, the Procurement Review Group, and the Energy Division, if requested, regarding the Consultant's findings or status;
- Provide a final written assessment as to whether the solicitation, bilateral negotiation and contract amendment processes were open, transparent and fair.

This report provides an assessment and review of PG&E's DRAM 5 RFO procurement process from development of the RFO through execution of the final contracts. The role of the IE is also discussed as it pertains to specific activities as identified in Section V of this report.

III. How did PG&E Conduct Outreach to Bidders and Was the Solicitation Robust

A. Describe the IOU Outreach to Potential Bidders

For the 2020 DRAM 5 RFO, the IOUs' outreach efforts targeted approximately 2,600 contacts from companies involved in DR and other programs for its distribution list.²² This included companies who had participated in utility programs in California as well as companies involved in DR programs in other markets in the US and Canada. The IE also identified a number of DR program participants from other ISOs or markets and provided the contact list to the IOUs' project team involved in the outreach activities. From recent DRAM RFOs, the utilities added other contacts to the original list, if appropriate.

The IOUs' outreach activities resulted in a reasonable response in terms of the number of participants and the quantity and quality of the proposals received. As we will discuss later, the response to the DRAM 5 RFO was not as robust as the response to the DRAM 2 and DRAM 3 RFO processes, both in terms of the number of bidders and overall number of offers, but was fairly consistent with the response from the DRAM 4 process.

PG&E established a section on the Company website for distribution of information to prospective Offerors. The website contained all the pertinent solicitation documents including:

- CPUC Decisions related to DRAM program;
- 2020 DRAM 5 Schedule;
- 2020 DRAM RFO Protocol and related documents;
- 2020 DRAM RFO Bidders Webinar Presentation;
- DRAM Purchase Agreement
- Scheduling Coordinator Request for Information;
- 2020 DRAM Frequently Asked Questions ("FAQs");
- CAISO Bidding Information, including Electric Rule 24;
- PG&E's Rule 24 Website for Third-Party Demand Response Providers;
- DRP Information Request Form;
- CISR – DRP Form;
- CISR – DRP Form Instructions;
- Steps Necessary to Receive Customer Data;
- Rule 24 Checklist;
- Map of PG&E's Electric System;
- 2016, 2017, 2018-2019, and 2019 DRAM RFO websites;
- PG&E SubLAP Map;
- CAISO Local Capacity Information;
- Contact information for PG&E's DRAM RFO email address and the IE contacts.

²² The list of potential candidates was based on a compilation of the lists for all three IOUs. PG&E's own list includes over 2,600 industry contacts.

The website contained a significant amount of current and backup information on the DRAM program and related issues and was easily accessible to navigate and from which to download information.

B. Identify the Principles Used to Determine Adequate Robustness of the Solicitation

There are several principles generally applied to determine whether the robustness of the solicitation was adequate. These include:

- Did the amount of capacity bid for the product sought allow for a competitive process?
- Were offers submitted for all products requested?
- Was there a competitive number of Participants for all products?
- Did the utility adequately market the solicitation?

C. Was the Solicitation Adequately Robust

PG&E received 96 original offers on November 7, 2019 from [REDACTED] different bidders, which served to result in a reasonably competitive process. This compares to 82 offers from [REDACTED] Bidders for the 2019 DRAM RFO. There were [REDACTED] new bidders in the 2020 DRAM RFO compared to the 2019 DRAM RFO, although [REDACTED] bidders from the 2019 DRAM RFO did not submit offers into the 2020 DRAM RFO. Of the bidders competing in the process, [REDACTED] submitted non-residential offers. [REDACTED]

[REDACTED] In total, there were [REDACTED] non-residential and [REDACTED] residential offers submitted. Overall, there was a total of approximately 208.6 MW submitted for August 2020, compared to 257.7 MW submitted for August in the 2019 DRAM RFO.

The IE concludes that PG&E's outreach activities were more than adequate and led to a reasonably robust market response based on a competitive number of Participants and offers submitted.

IV. Description of PG&E's Proposal Evaluation Methodology

This section of the report provides an overall description of PG&E's evaluation methodology and criteria for evaluating and selecting DRAM resources. PG&E developed an internal evaluation methodology designed to assess DRAM offers to meet requirements for the DRAM 5 RFO based on the set of constraints and eligibility criteria identified in the RFO Instructions and the requirements outlined in the CPUC Resolutions and Decisions as well as Energy Division guidance. As will be discussed in this section, the three California utilities, including PG&E, developed a consistent "value oriented" quantitative evaluation methodology for the DRAM 5 RFO.

PG&E's evaluation protocol for ranking Offers in the 2020 DRAM RFO is based on both quantitative and qualitative factors. PG&E's offer selection methodology in the 2020

DRAM RFP process will be limited by the following factors: (a) the budget; (b) the long-run avoided capacity cost of generation; (c) outliers; and (d) the amount of the new market entrant set-aside requirement. PG&E is also undertaking an assessment of the qualifying capacity of offers in accordance with D.19-07-009, as modified by D.19-09-041.

In order to be considered for selection in this RFO, the Offer must (1) meet the eligibility criteria set forth in Section III of PG&E's RFO Solicitation Protocol. Conforming offers²³ will then go through the analysis described later in this section of the IE report to evaluate and rank the offers received. Offers will be shortlisted based upon the requirements identified in the DRAM Decisions, Resolutions, Advice Letters and Energy Division guidance unless offers are rejected based on its price being above the long run avoided cost of generation, one or more of the monthly capacity prices are outliers or in cases where there is clear evidence of market manipulation.²⁴ PG&E's solicitation is seeking to procure DR resources under the following identified constraints:

- Cost Cap - PG&E's acceptance of offers will be subject to the CPUC's authorized budget cap of \$5.7 million (including administration costs)²⁵;
- Long-run Avoided Cost of Generation ("LRAC") - the IOU's are not obligated to select an offer if the offer price is above the long-term avoided cost of generation, though the IOUs' ability to reject offers requires approval of the Energy Division. The public 2020 avoided cost for DR in E3's avoided cost model is \$111.95/kW-year (included in E3's 2019 Avoided Cost Calculator in the DR Output tab cell J7);
- Outliers – If one or more of the monthly capacity prices of the offer are considered outliers, PG&E may, but is not obligated to, seek approval from the Energy Division to exclude such offer;
- New Market Entrant Set-Aside – At least 10% of the total capacity procured in the 2020 DRAM RFO must be attributed to new market entrants.²⁶ If PG&E does not receive sufficient offers to attain 10% new market entrant of the total DRAM capacity, PG&E will be required to procure the new market entrant offers it does receive barring any monthly capacity price outliers within the Offer and up to the long-run avoided capacity cost. The 10% shall be assessed based on the August MWs.

DRAM 5 Offers for PG&E will be selected according to the following method:

1. Offers shall be ranked by Net Market Value ("NMV"), adjusted for the qualitative criteria score for each offer;
2. PG&E shall select offers up to its authorized budget, including administrative costs.

²³ Based on the schedule, there is a 7-day cure period from November 11, 2019 to November 18, 2019 to cure offers.

²⁴ The IOUs shall make such exceptions to not select an offer in consultation with its Procurement Review Group and with approval of the Energy Division.

²⁵ Decision (D.) 19-07-009. Ordering Paragraph 2 and 3.

²⁶ A new market entrant is defined as a Provider who has not integrated any demand response resources into the CAISO market during the three years prior to a new Auction Mechanism solicitation involving any form of market-integrated demand response including but not limited to the Auction Mechanism or other resource adequacy contracts.

3. PG&E may elect to not select an offer if:
 - a. The offer's price is above the long-term avoided cost of generation: \$111.95/kW-year
 - b. One or more of the monthly capacity prices of the offer are outliers

PG&E evaluated conforming offers using the quantitative and qualitative criteria described below. PG&E performed a quantitative evaluation of each conforming offer and ranked those offers based on each offer's Net Market Value²⁷ (NMV) per unit – from highest to lowest – in dollars per kilowatt contract term (\$/kW-contract term).²⁸ The NMV in \$/kW-contract term is calculated using total NMV dollars for the numerator, and total offered monthly volume in kilowatts for the denominator (discounted) to get volume weighted average NMV in \$/kW-contract term, which is then multiplied by 7 months for the contract term. The result of the quantitative analysis is a merit-order ranking of all complete and conforming offers.

PG&E calculates an offer's benefits using its forecast Resource Adequacy (RA) market value for each type of product in the offer, e.g. System Capacity and/or Flexible Capacity. An offer's cost will be determined by multiplying (a) the offer's volume per Product per month by (b) the offer's price per Product per month, then adding all of these monthly values together. February 1, 2020 will be the Present Value date to which PG&E will do the discounting.

For the 2020 DRAM RFO, PG&E will apply to each offer's cost, as appropriate, an adjustment based on the Qualitative Evaluation Scoring Matrix described in Table 1. The qualitative assessment scoring matrix will be used to calculate such adjustment. Therefore, the offer's cost will be adjusted upward or downward based on the application of the adjustment factors.²⁹

Capacity Value for System capacity will be multiplied by 1.15 since every 1 kW of DR resources reduces RA requirements by 1.15 kW. All costs and benefits will be discounted using PG&E's after tax weighted average cost of capital. The result of the evaluation is a Net Present Value ("NPV") of the benefits minus costs for each offer.³⁰ The NPV of the benefits minus the costs divided by the discounted monthly kW offered is then converted to a \$/kW-contract term value for each offer. All offers are ranked based on NPV\$/kW-contract term values, which serves as the basis for selection, taking into consideration any mutually exclusive offers, the 10% new entrant set-aside requirement, the total budget cap and the relationship between offer price and the long-term avoided cost of generation.

Prior to issuance of the DRAM 5 RFO, the IE reviewed PG&E's and the other utilities' evaluation methodology and participated in calls with PG&E's project team along with the

²⁷ NMV = Benefits – Costs. Monthly discounting is applied to the costs and benefits using PG&E's after-tax weighted average cost of capital.

²⁸ Net Market Value per Unit in \$/kW-contract term = NPV of the NMV dollars divided by the NPV of the total offered volume in kW and multiplied by 7.

²⁹ [REDACTED]

³⁰ Costs and benefits are discounted back to February 1, 2020 as the basis for the evaluation results.

teams of the other utilities to review and discuss the proposed methodology and ensure the methodology was reasonably consistent to facilitate participation by bidders.

In order to comply with D.19-07-009, as modified by D.19-09-041, bidders were required to submit estimates of qualifying capacity (QC) for each offer submitted into the DRAM solicitation. These estimates shall be based on historical information, where available, and otherwise, publicly available performance data that best represents the anticipated performance of the resource. A bidder's failure to provide this information would not comply with D.19-07-009, which would disqualify the bidder's offer.

After submission of offers, the IE also summarized and ranked the offers received by each utility as a check relative to the summary prepared by the utility. The IE also reviewed PG&E's and other utilities' assessments of the offers received to ensure that the best offers were reasonably considered based on the constraints and requirements imposed. The IE used his own spreadsheet model as a check against the IOU's assessment.

Framework and Principles for Evaluating PG&E's Bid Evaluation Methodology

This section of the report addresses the principles and framework underlying Merrimack Energy's review of PG&E's methodology for the DRAM 5 RFO offer evaluation and selection. Key areas of inquiry by the IE and the underlying principles used by the IE to evaluate the methodology and results include the following:

- Were the procurement targets, products solicited, principles and objectives clearly defined in the RFO documents?
- Is the bid evaluation and selection based on the criteria specified in the bid documents?
- Do the bid documents clearly define the type and characteristics of products desired and what information the bidder should provide to ensure that the utility can conduct its evaluation?
- Does the methodology identify how qualitative and quantitative measures were considered and were they consistent with an overall metric?
- Does the price evaluation methodology allow for consistent evaluation of offers of different sizes and in-service dates?

Evaluation Criteria and Methodology

PG&E's DRAM 5 RFO Solicitation Protocol adequately defines the products solicited (Section III in PG&E's 2020 DRAM 5 RFO Solicitation Protocol), the basis for the solicitation, RFO goals for PG&E, eligibility requirements, the evaluation criteria, quantitative and qualitative evaluation factors, and the information required from the bidders. The DRAM 5 RFO documents also provide the Offer Forms which the bidders should complete as part of their offer, including the Offer Form and the Qualifying Capacity Assessment Template. As described in the RFO Solicitation Protocol, as a first step all incoming offers were initially assessed for conformance with the basic submittal and eligibility requirements identified in the DRAM 5 RFO Solicitation Protocol.

Subsequent to the conformance review and cure period, PG&E undertook a quantitative and qualitative assessment of the offers submitted. PG&E assessed the offers based on the benefit and cost relationship which reflects the relationship between the offer price submitted for each month relative to PG&E's projection of market RA value for each product.

As is typical in procurement processes, the DRAM 5 RFO documents do not provide the detailed inputs (i.e. RA prices projected for each month by product) that PG&E will use in the evaluation. However, the methodology was reviewed with the IE in advance of receipt of offers. The methodology was also discussed between the IOUs and Energy Division. Also, the methodology was described in detail during the Pre-Bid Web Conference. The methodology was consistently and reasonably applied to all offers given the type of product sought.

As described above, based on the provisions of D.19-07-009, bidders were required to submit estimates of qualifying capacity (QC) for each offer submitted into the DRAM solicitation. These estimates shall be based on historical information, where available, and otherwise, publicly available performance data that best represents the anticipated performance of the resource. A bidder's failure to provide this information would not comply with D.19-07-009, which would disqualify the bidder's offer. PG&E also indicated in its evaluation protocol that PG&E will evaluate the QC estimates for all shortlisted bids and provide a rating estimate to indicate whether the offer has a reasonable chance of providing the QC bid. PG&E did not consider this as a bid selection criterion, but did indicate that the ratings will be shared with PG&E's DRAM RFO Steering Committee and the PRG, including the Energy Division.

In summary, the description and implementation of the evaluation methodology, criteria, and inputs meets the requirements of the CPUC Resolutions and Decisions and Energy Division guidance. While the Qualitative Scoring Matrix for the DRAM 5 RFO includes criteria to reflect bidder performance, the IE continues to believe (as originally identified in the IE's comments on the DRAM 4 solicitation process) that one issue to consider for future DRAM solicitations is whether the evaluation process should contain stricter thresholds or stricter qualitative criteria based on performance of bidders who were seeking or were awarded contracts and their experience performing under the contract during the DRAM pilot solicitation processes. As described later in this report, the issue regarding use of QC assessments and bidders' historical performance as an evaluation criterion was a point of contention between the utilities, Energy Division, and IE. While all three entities agree that the DRAM solicitation process should incorporate QC assessments and performance in the evaluation process, the points of contention revolved around the failure to agree on how such a criterion would be applied for offer ranking and selection, failure to provide notice to bidders that such a criterion would be applied prior to the issuance of the RFO documents, and differences of opinion regarding the directives included in D.19-07-009 to specifically require QC assessments and performance of bidders as a criterion in the DRAM 5 RFO.

Strengths and Weaknesses of PG&E's Evaluation Methodology for DRAM RFO

This section of the report provides an assessment of the strengths and weaknesses of PG&E's evaluation and selection methodology.

Our experience has indicated that utilities use a variety of methodologies and criteria to evaluate resources based on the specific products requested and other factors. For DRAM solicitations it now appears that the utilities have generally agreed on a consistent quantitative evaluation methodology, although differences still exist with regard to the application of qualitative criteria. We will draw upon this experience to address PG&E's methodology relative to the product solicited.

The following are the strengths identified by the IE with regard to the evaluation methodology:

- The methodology is reasonably straightforward, is easy to implement, and can be reviewed and audited easily;
- The methodology is generally consistent with the traditional utility "least cost best fit" methodology wherein the utilities generally compare the value of an offer based on market projections relative to the bid cost. The "net market value" methodology therefore accounts for both value (i.e. benefits) and costs in evaluating and ranking offers. Furthermore, this methodology is valuable for the DRAM 5 RFO and future DRAM RFO's in which the utilities may be considering a range of RA products (i.e. system and local RA, flex options, etc.) as opposed to a cost-only evaluation methodology used for the 2016 DRAM RFO. In particular, the methodology is capable of evaluating a range of products and offer types;
- The methodology does reflect the importance of summer capacity costs and volumes offered;
- The methodology is consistently applied for both residential and non-residential customers.

In the opinion of the IE, there are a few potential weaknesses of the methodology that may be associated with the inclusion of additional constraints imposed on the evaluation methodology.

While two major weaknesses were identified by Merrimack Energy in its DRAM 4 reports (e.g. use of the average August capacity price cap and the 20% residential set-aside requirement) have been eliminated for the DRAM 5 solicitation, one other issue emerged in the DRAM 5 solicitation process. The issue that arose for the DRAM 5 solicitation was the application of the Long Run Avoided Cost (LRAC) relative to offer prices as a basis for eliminating high cost offers. This issue was exacerbated by the delivery term for the DRAM 5 process of seven months. As will be discussed in more detail later in this and other utility IE reports, utilities took different approaches for calculating this metric as a basis for resource selection.

In conclusion, the IE is of the opinion that the general methodology used by PG&E (and the other IOUs) for evaluating DRAM RFO offers is reasonable for this type of product.

The methodology provides a systematic way of evaluating and ranking a range of offers and products considered with the objective of meeting the spending targets to develop a final short list based on the constraints identified and offers submitted. Furthermore, this methodology offers a solid base in cases where the DRAM solicitation requirements may become more complex. However, the IE is concerned about the application of the Long Run Avoided Cost for assessing whether offers should be eliminated as high cost offers. In particular, the potential methodologies applied in this RFO yielded very different results. The IE suggests that review and design of an appropriate and consistent methodology for comparing offer prices to the long-run avoided cost of generation needs to be addressed prior to issuance of the DRAM 6 solicitation.

V. Administration of the DRAM Solicitation Process

In performing its oversight role, the IE participated in and undertook a number of activities in connection with the DRAM 5 solicitation including providing comments on PG&E's RFO documents, participating in conference calls with the IOU's project teams prior to receipt of offers, discussing the bid evaluation methodology and selection process, discussing the rationale for any constraints or objectives underlying the evaluation and selection, organizing and summarizing the offers received, reviewing and commenting on the evaluation and selection process and results at each step of the evaluation and selection process, and participating in meetings with the Energy Division and PRG. The key project activities are listed in this section of the report in conjunction with the activities of the IE.

Project Team Meetings

The IE participated in both joint meetings of all three utilities, primarily focused on the preparation for the Pre-Bid Web Conference and the QC template required for bidder submission of qualifying capacity and historical performance data by Sellers as required in Appendix A of D.19-07-009, as well as select calls with individual utilities to discuss issues specific to that utility.

The IE participated in two joint utility DRAM meetings in September and early October, 2019. The focus of the first meeting was on the launch of the DRAM 5 Protocols by each utility, including the schedule for the process and the time by which offers were due. The utilities also discussed the logistics and time for the Pre-Bid Web (Bidders) Conference. SCE volunteered to host the Pre-Bid Web Conference. It was also decided that the Pre-Bid Web Conference would be held on October 18, 2019, one week after RFO launch. Other topics discussed included the definition of what constitutes a new entrant, and initial discussions regarding development of the Sample Template: DRAM Seller Estimate of Qualifying Capacity ("Qualifying Capacity (QC) Template").

The second meeting addressed preparation for the Bidders Conference and development of the sample QC Template for submission by bidders of Appendix A data requirements. Issues also discussed included the need to seek Energy Division approval of the template

developed and discussions also revolved around how the information collected would be used or reported.

Preparation/Launch of the DRAM 5 RFO

One of the primary issues addressed by the IOUs and Energy Division prior to issuance of the DRAM 5 RFOs on October 11, 2019 was the development of and utilization of the information provided by bidders with regard to the QC Template for standardizing the collection of information per Appendix A. The IOUs developed drafts of the QC Templates as a team and provided drafts of the template to the Energy Division for review and comment. In addition to comments on the drafts of the QC Template, the parties also discussed the use of the information provided and whether the information would be part of the bid evaluation and selection process. One of the concerns raised by the IOUs was that if the QC information would be used as part of the bid evaluation and selection process, such information should be included in the RFO Protocol to guide bidders in their preparation of offers. The IE was also of the opinion that to ensure a fair and equitable solicitation process, the process needed to be reasonably transparent particularly with regard to the bid evaluation and selection process. Based on review of email communications between the Energy Division and IOUs prior to launch of the RFO Protocols, it appeared that the parties had agreed that such information would not be included as part of the DRAM 5 evaluation and selection process and information about the use of QC assessment data for offer evaluation was therefore not included in the RFO Protocols.

In addition, Energy Division Staff were provided excerpts of the RFO Protocol documents by the utilities and provided comments, including suggesting revisions to the language in the RFO Protocols relating to Qualifying Capacity Assessments. The IE also reviewed a draft of PG&E's DRAM 5 RFO Solicitation Protocol and the Offer Forms prior to launch and provided comments to PG&E. The IE and PG&E's DRAM team members also had discussions regarding the bid evaluation methodology prior to the launch.

The RFO was issued on October 11, 2019 as planned. The DRAM 5 RFO Instructions, Offer Form, and related documents were posted to PG&E's DRAM 5 RFO website at that time. The documents included on PG&E's DRAM 5 RFO website were identified previously in this report.

Pre-Bid (Bidders) Web Conference

The IOUs held a Pre-Bid (Bidders) Web Conference on October 18, 2019 for interested Participants to provide an overall perspective on the solicitation process, including the products sought, eligibility requirements, offer evaluation and selection methodology and process, quantitative and qualitative evaluation requirements, summary of modifications from the 2019 DRAM, the DRAM RFO schedule, and Purchase Agreement highlights. In addition, the utilities provided a description of the Offer Forms used by each utility as well as Exhibit F (Sample Template: DRAM Seller Estimate of Qualifying Capacity) required for offer submission. Each of the utilities also conducted a walk-through of their specific

offer forms and submission requirements. Participants/Bidders had the opportunity to ask any follow-up questions, and the IOUs, including PG&E, posted the responses shortly after the Pre-Bid Web Conference. The IE had the opportunity to review the Pre-Bid Web Conference presentation and provide a few comments on the draft materials.

Agenda items addressed at the Pre-Bid Web Conference included:

- Introduction and Overview
- Bid Valuation and Selection Process
- DRAM Request for Offers Bid Materials
 - Summary of Modifications for DRAM 5
 - RFO Schedule
 - Purchase Agreement Highlights
 - Supply Plan Requirements
- Walk Through of Exhibit F – Sample Template: DRAM Seller Estimate of Qualifying Capacity
- Walk-Through of IOU DRAM 5 RFO Offer Forms for each Utility
- Closing Remarks

The Pre-Bid Web Conference presentation also included the website addresses for the DRAM 5 RFO for all three utilities. All three utilities posted the presentation on its website for the DRAM 5 RFO.

Approximately 25 potential Participants called into the Pre-Bid Web Conference. A representative of the IE team was present at the Pre-Bid Conference at SCE's offices.

Questions and Answers

The utilities received and answered twenty questions for the DRAM 5 RFO. Questions were generally received at the Pre-Bid Conference as well as additional questions after the conference. A total of seven questions were received at the Bidders Conference and thirteen questions were received after the Bidders Conference. Once questions were received, the utilities each provided input to the responses. The IE reviewed and commented on final draft responses to ensure the responses were clear and consistent.

One issue regarding the response to questions in a timely manner before the deadline to submit offers was the appropriate response to bidders based on the questions from one bidder about the use of the QC information as a criterion for accepting or rejecting qualifying capacity. Since the IOUs and Energy Division could not reach resolution on how such information would be used in the offer evaluation and selection process, the IOUs crafted a fairly generic response that reiterated the process to be used by the IOUs for evaluation and selection of offers that did not include QC assessment information. The response of the IOUs included the following information regarding QC assessment data:

“Each IOU will review whether the capacity offered is reasonable based on the information provided in the QC assessment template.” ... “Bidders will only be notified of issues with their QC assessments if a cure is required, and if the IOU

determines that a cure is required, it will request only the information that requires curing to be revised by the bidder during the cure period.”

The IOUs compiled the questions received by each utility, distributed the questions to a utility representative for each utility, prepared initial responses to the questions, and distributed the draft responses for further comment. The responses to the questions generally reflected the combined input of team members from each utility and consensus regarding a consistent response, if possible. Overall, the IE felt the IOUs were responsive and thorough with regard to the responses to bidders.

List of New Market Entrants

To assess whether a Seller was a New Market Entrant and would be able to qualify for the 10% new entrant set-aside,³¹ the IOUs compiled a list of Non-New Market Entrants, including a list of DRAM Sellers based on public information filed with the CPUC in the advice letters seeking approval for the previous DRAM contracts. The IOUs also agreed that if a Bidder self-reports as a New Market Entrant the IOUs would verify that the Bidder: (1) was not awarded a DRAM contract across any of the IOUs in the three years prior to a solicitation; (2) are not registered as a DRP with the CPUC.

Follow-Up Discussions on QC Assessments

The Energy Division and IOUs scheduled a call for November 6, 2019, one day before offers were due, to discuss the options for reflecting QC assessments as part of the evaluation and selection process for the DRAM 5 RFO. The IOU’s reaffirmed their position that the bid evaluation and selection process would not specifically include QC assessments as a specific criterion for evaluation and selection. The IOUs agreed that should offers with unreasonable qualifying capacity values be included in the IOUs prospective shortlist that the IOUs would notify the Energy Division. The IOUs and Energy Division also discussed Advice Letter filing requirements if offers were selected with unreasonable QCs. PG&E suggested its preference would be to identify several portfolios as part of its PRG presentation and seek comment from the PRG. One portfolio would include all offers based on rank order as required and another would include a portfolio without offers that have suspect or potentially unreasonable QC values.

The IE shared his concerns and views regarding the inclusion of QC assessments in the evaluation and selection of the offers for the DRAM 5 solicitation processes at this stage in the process:

- The IE noted that bidders were not made aware via the RFO Protocols or the Bidders Conference presentation that QC assessments would be included as a specific criterion as part of the evaluation and selection process for DRAM 5 or how such assessments would be applied for ranking and selection of offers before

³¹ Per D.19-07-009 (page 44), a New Market Entrant is defined as a Provider who has not integrated any demand response resources into the CAISO market during the three years prior to a new Auction Mechanism solicitation involving any form of market-integrated demand response including but not limited to the Demand Response Auction Mechanism or other resource adequacy contracts.

submitting their offers. The IOUs RFO Protocol documents and Bidders conference presentation focused on evaluation and selection based on rank order relative to Net Market Value calculations along with qualitative adjustments, if applicable;

- There were no specific criteria developed and in place by which to consistently incorporate QC assessment values in the overall offer evaluation and selection process. There could be very different approaches used by each utility for ranking and selecting offers associated with QC valuation assessments. Furthermore, it is not common practice in the design and implementation of a competitive procurement process to create the criteria for evaluation of offers after the offers are received. The IE noted that this is contrary to industry practices and violates the integrity of an effective competitive solicitation process. The IE expects that further analysis and assessment is required to come up with appropriate methodologies and criteria to incorporate QC assessments in offer evaluation and selection. One day before offers are due is too late and certainly after offers are due is problematic;
- While the IE has no issues with the IOUs creating and presenting alternative portfolios based on QC assessments to the PRG for informational purposes based on the data provided by the bidders, to assess the cost/viability trade-offs utilizing QC assessments for final selection and contracting appears to be inconsistent with the CPUC Decision 19-07-009, could result in bidder complaints about the integrity of the solicitation process and could further chill participation in the DRAM process for future solicitations. Bidders may have made very different decisions regarding their offers to the DRAM 5 RFO if they were aware that QC assessments would be used to select offers prior to submitting their offers.

Receipt of Offers

Offers were received as scheduled on November 7, 2019. For PG&E, offers were submitted to the PowerAdvocate Platform set up for this event. The IE had access to the PowerAdvocate Platform and could download and review the offers submitted. A total of [REDACTED] Bidders submitted offers. In all, 96 offers³² were submitted, more than the 81 offers submitted by [REDACTED] Bidders for the 2019 DRAM 4 RFO process.³³ [REDACTED] new Participants [REDACTED] submitted offers to PG&E's DRAM 5 RFO. [REDACTED] Participants submitted offers into all five PG&E DRAM RFO's [REDACTED]. Table 3 includes a list of bidders, number of offers submitted by each bidder, and total August mega-watts.

³² Of the 96 offers submitted, [REDACTED] were for System RA, and [REDACTED] included Flex RA.

³³ Forty-nine offers from [REDACTED] Bidders were submitted to PG&E's 2016 DRAM RFO. In the 2017 DRAM RFO, PG&E received 95 offers from [REDACTED] bidders. For the 2018-2019 DRAM RFO, PG&E received 83 offers from [REDACTED] bidders.

Table 3: Summary of Offers Received

Bidder	Number of Offers	Total August MW ³⁴
Total	96	208.62

With regard to customer accounts, [REDACTED] Participants submitted offers for non-residential accounts. Only [REDACTED] Participant [REDACTED] also offered residential customer accounts. A total of [REDACTED] of the offers [REDACTED] were for residential customer accounts.

In summary, eligible Bidders submitted offers that included a total of 208.62 MW for August 2020. This compares to the capacity offered into the DRAM 4 solicitation which included 257.7 MW of August RA capacity for 2019.

The IE downloaded the offers and reviewed the offers along with PG&E's project team. The IE prepared its own summary of the offers received including high level summary information of the offer quantities and pricing for each product. The IE used this information to also check the evaluation results and ranking of offers compiled by PG&E for selection purposes using a model developed by the IE.

Appendix A provides the IE's list of the offers received, including the Participant, the customer class offered, estimated number of registrations, monthly capacity and pricing offered, and total costs for each offer.

Conformance of Offers/Cure Period

The DRAM 5 RFO schedule allowed approximately 11 days from submission of offers on November 7, 2019 to identify any conformance issues and to allow bidders to cure any non-conformance issues associated with their offers by the cure deadline of November 18, 2019.

With regard to conformance issues, [REDACTED]

³⁴ Total August MW report reflect offers that are exclusive. If offers are exclusive only one offer is included.

[REDACTED] As a result of the requests for conformance on the part of the bidders, all offers were deemed eligible for evaluation.

Offer Ranking and Selection

After the conformance stage, PG&E proceeded to undertake its review and assessment and rank offers based on its evaluation methodology. The evaluation methodology consisted of the following steps:

1. Calculate the total bid cost for each offer for each month as the product of the monthly capacity offered times the monthly offer price;³⁵
2. Calculate the total RA value of the offer for each month as the product of the monthly capacity offered times PG&E's forecast of the RA value for each month based on the product submitted by the Respondent;
3. Multiply the total RA value by 1.15 for System RA;
4. Calculate the Net Present Value of the cost and benefit streams based on PG&E's discount rate of 7% which is used for most solicitation processes;
5. Apply any qualitative adjustment to the cost at this point in the evaluation;³⁶
6. Calculate the difference between the benefits and costs for each offer;
7. Divide the difference between the benefits and costs by the discounted sum of the monthly kW submitted for each offer;
8. Multiply this value times 7 to derive a PV\$/kW-contract term metric;
9. Rank order the offers from highest to lowest value (PV\$/kW-year) for all eligible offers;
10. Compare the Levelized Cost of each offer with the Long Run Avoided Cost of Generation to determine if the offer price exceeds Long Run Avoided Cost;
11. Keep going through NMV ranking until no more offers satisfy all the criteria (i.e. at or below total budget authorization, not above the long-term avoided cost of generation, meets 10% new entrant set-aside);

An issue which arose during the offer evaluation and ranking process was the application of the Long Run Avoided Cost of Generation relative to offer prices as a metric by which to bypass offers. This criterion was initially applied in the DRAM 4 solicitation process. DRAM 4, however, was an annual auction. In addition, to the best of our knowledge, there was a limited number of offers whose price exceeded the LRAC of \$113.20 for DRAM 4. Furthermore, given that there were a large number of offers that were priced below the LRAC, the IOUs were able to rank and select offers up to the budget cap that did not involve any issues with elimination of offers that exceeded the LRAC. For the DRAM 4 solicitation, the methodology used by the IOUs was to compare the weighted average cost of an offer over 12 months straight up to the LRAC, with the weighted average cost equal to Total Cost of the offer (price offered in each month times the kW's offered in each month)

³⁵ The bid cost includes Scheduling Coordinator costs.

³⁶ [REDACTED]

divided by the total kW-hs included in the offer times 12 to annualize the cost of the offer. Since the DRAM 4 process was based on a 12-month delivery period, most bidders offered RA for 6 to 12 months, and offers with higher prices were far down in the stack. As a result, this criterion was not an issue in the evaluation and selection process for DRAM 4.

For DRAM 5, there were no discussions among the utilities regarding development of a revised methodology to compare offer prices to Long Run Avoided Costs before the offers were submitted. In their Protocols and in the Pre-Bid Web Conference, the IOUs noted that the IOUs may elect not to select an offer if the offer's price is above the long-term avoided cost of generation or if one or more of the monthly capacity prices of the offer are outliers. The presentation further stated that the IOUs shall make such exceptions in consultation with its' Procurement Review Group and with approval of the Energy Division.

After the DRAM 5 offers were received, Merrimack Energy (as IE) performed an independent evaluation of the offers for each utility (using each IOUs RA price curves and discount factors) in order to verify the rank order results with the IOUs evaluation results. The IE completed its evaluations for each utility within two days of receiving the offers and noticed that using the normalized annual cost approach used in DRAM 4 based on assuming twelve months of costs led to [REDACTED] of the offers being above the LRAC for all three of the utilities, a much different result than for DRAM 4.

At around the same time, the IE was contacted by PG&E DRAM team staff, who mentioned that the previous approach used in DRAM 4 to normalize the offer costs over the year (taking the weighted average monthly price for each offer and multiplying by 12 to get a normalized \$/kW-year value, and comparing to the LRAC on a \$/kW-year basis) as described above would eliminate a [REDACTED] of the offers for PG&E since the offer price was weighted for all 12 months even though offers were submitted for up to and including 7 months.

As noted above, one concern about this approach (i.e. annualize the offer price) was that it effectively assumes that the weighted average offer price would essentially have been the same price offered for the months not included in this DRAM 5 RFO delivery period (i.e. Jan-May). One of the issues then became how to extrapolate or impute monthly offer prices to account for the first 5 months of 2020 that aren't included in this solicitation to allow for a reasonable 12-month comparison.³⁷

PG&E considered different approaches and selected an approach based on the thought process that since all of the LRAC allocation factors identified in E3's model were allocated to the July through September period and were all within the contract months for the RFO, it could effectively compare the offer pricing over the contract term to the LRAC. As such, PG&E divided the total discounted cost of the offers by the total discounted quantity (effectively the weighted average monthly price) and multiplied this by 7 to account for the seven months in the contract term. This generated a weighted average cost for the offer (\$/kW) over the 7-month delivery term that was lower than applying the

³⁷ For example, one of the options considered was whether pricing for the five months of the term should be based on the average of the Q4 pricing (instead of all 7 months) to eliminate the over valuation of these months which otherwise would be based on use of the weighted average cost of the offer, which could be heavily weighted to higher priced peak months.

annualization methodology (i.e. multiply by 12). This cost was then compared to the LRAC value of \$111.95/kW. This method resulted in the disqualification of only [REDACTED] offers for PG&E. However, [REDACTED] offers were very low in rank order and were not bypassed in rank order because of their price exceeding LRAC.³⁸ The use of the 7-month methodology applied by PG&E did not result in the elimination of any offers due to the offer pricing exceeding the long-term avoided cost of generation. PG&E was then able to select offers in rank order up to the budget cap.

Internal Offer Evaluation

PG&E's DRAM team evaluated the offers received and identified several possible portfolios based on imposition of the various constraints, ranking of offers relative to the constraints imposed, and including incorporation of evaluation criteria developed to assess offers relative to QC performance estimates as an informal evaluation criteria to develop a rating metric for each bidder based on QC estimates and historical performance. [REDACTED]

[REDACTED] Presentations on the evaluation results were initially provided to PG&E's Evaluation Committee and Steering Committee before the presentation to the PRG.

Request For Additional QC Data

The Energy Division contacted the IOUs on November 15, 2019 and informed the IOUs that the Qualifying Capacity Assessment template did not request all of the data required by Ordering Paragraph 7 under Appendix A of D. 19-07-009, and asked the IOUs to request the remaining data from all bidders in the 2020 DRAM process. After a conference call

³⁸ PG&E received an email from Energy Division staff on November 15, 2019 asking PG&E to explain how PG&E planned to apply the annualized LRAC value during the bid evaluation process, given that the offers will involve only partial year deliveries. In other words, how will PG&E "pro-rate" the annualized LRAC value to compare with the offer price for the partial year. PG&E responded on the same day that it will be using the 2019 Avoided Cost Calculator, which provides a long-run avoided cost of generation value of \$111.95/kW-year for 2020. Based on E3's model, the monthly allocation of the long-run avoided cost of generation value results in the capacity allocation factors that concentrate between the months of July through September, with zero allocation between January through May. Therefore, the \$111.95/kW-year figure would be equivalent to the long-run avoided cost of generation value for the June through December contract term.

between the IOUs and ED on November 21, 2019, the IOU's revised the Qualifying Capacity template to include the remaining data from Appendix A and provided explanatory notes and additional columns in the QC template. On November 25, 2019 the IOUs sent emails to all eligible bidders requesting that the bidders provide the additional data by either (1) updating the revised QC template with the information the bidder previously submitted along with the additional data or (2) submitting a separate supplemental template containing only the additional data. The IOUs also informed the bidders that the following supporting documentation is also required by Appendix A: historical performance data from a prior test or market dispatch for a demand response resource with similar characteristics as the customer class, nature of load being aggregated, and dispatch method as the offers presented. Where historical data was not available, bidders were informed to reference suitable publicly available performance data that best represents the anticipated performance of the resource, based on the characteristics listed in the QC template. The IOUs requested that bidders submit their responses to the revised QC template by end of the day on December 2, 2019. All bidders complied with the requirement for revised QC templates.

PG&E PRG Meeting – DRAM 5 RFO Final Selection

PG&E presented its final evaluation results, portfolio results and project selection to the PRG on December 5, 2019. PG&E presented an overview of the DRAM 5 schedule, the CPUC approved offer selection criteria, offer viability assessment information required, overview of the number of bidders, offers submitted, and MW offered for the five DRAM solicitations. PG&E summarized the number of offers submitted, number of bidders, participants in all five DRAM solicitations, and new participants for the 2020 DRAM RFO. PG&E also discussed its quantitative and qualitative criteria and described in general its offer viability assessment.³⁹ PG&E noted that it would rank offers by Net Market Value per unit (RA benefits minus offer costs), adjusted for qualitative criteria (if applicable). PG&E shall select offers up to the budget cap of \$5.7 million including Administrative costs. As noted, PG&E may elect to not select an offer if (a) the price is above the long-run avoided cost of generation or (b) one or more of the monthly capacity prices are outliers.

PG&E recommended selecting offers in rank order based on Net Market Value, while incorporating the 10% new market entrant set-aside and the budget and price constraints listed above. [REDACTED]

[REDACTED]

[REDACTED]

³⁹ PG&E noted that while PG&E would assess the reasonableness of each offer from an offer viability assessment perspective, D.19-07-009 did not adopt proposals to apply this assessment to offer selection.

⁴⁰ [REDACTED]

For each of the cases, PG&E identified the number of sellers selected, number of offers, Total MW, total cost and weighted average cost (\$/kW-year).

PG&E informed the PRG that it was recommending approval of the Compliant Portfolio as the preferred portfolio

. The selected scenario included 5 Sellers with total offers and 99 MW of RA August capacity at a total cost of (not including administrative costs of approximately). The recommended portfolio included the following Sellers: Enel X (offers); Tesla (offers); Stem (offers); Voltus (offers), and Leapfrog (offers).

The shortlisting decisions for the Compliant Shortlist were largely based on Net Market Value, with no offers eliminated based on comparison to the Long-run avoided cost of generation or outliers.

Table 4 provides a comparison of the Bidders and number of offers selected for the Compliant

Table 4: Bidder Composition for Each Shortlist Option

Compliant Short List			
Bidders	Number of Offers	MW	
Enel X		18.60	
Tesla		13.40	
Stem		8.92	
Voltus		23.00	
Leapfrog		35.00	

Total		98.92	

Table 5 provides a summary of the shortlisted offers in the Compliant portfolio that PG&E presented to the PRG at its December 5, 2019 meeting.

Table 5: PG&E Shortlist Selection

Rank	Bidder	Offer #	Product Type	Residential or Non-Res	August Capacity (MW)	Total Bid Cost	NPV (\$/kW-contract term)	Selected

[REDACTED]

As a result, for its recommended shortlist, PG&E selected [REDACTED] offers from five counterparties. The offers selected are summarized with the following statistics:

- 99 MW of Demand Response RA in August, 2020;
- Total cost of [REDACTED] (excluding Administrative costs);
- 23.0 MW of capacity for August, 2020 for New Entrants, which is equivalent to 23% of all RA capacity selected for August;

Merrimack Energy as the IE was also asked to provide its perspective on the Shortlists and final selection. The IE identified the key provisions and modifications from the 2019 DRAM as identified in Commission Decision D.19-07-009 along with the bid selection criteria as background. The IE also provided additional metrics which compared the results from the Compliant Shortlist [REDACTED]. Table 6 contains comparative data on each of the above shortlists as calculated by the IE.

Table 6: Shortlist Metrics

[REDACTED]	
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- While the Commission Decision raised concerns about reliability of performance by DRAM providers and suggests addressing performance in subsequent DRAM solicitations, in the IE's opinion the Decision does not require that such reliability or performance assessments should be included in the evaluation and selection of offers for the 2020 DRAM;
- Also, bidders were not informed that QC assessments and reliability criteria would be included in the offer evaluation process prior to submitting their offers. If bidders were aware of such a criterion, it may have influenced their bidding decisions;
- While no offers were eliminated by PG&E based on pricing above the Long-Run Avoided Cost of Generation (LRAC) there were several discussions between the PG&E team and IE regarding the appropriate methodology for calculating the relationship of Long Run Avoided Cost (stated on a \$/kW-contract term basis) relative to offer prices over a 7-month period;
- For such a calculation of offer prices relative to Long-Run Avoided cost, different methodologies could lead to different results in terms of whether the offer price is calculated to be above the LRAC and the offer could therefore be eliminated;
- Even with the expectation that future DRAM solicitations will be conducted over an annual period, the appropriate methodology for comparing offer prices to the LRAC needs to be assessed given that Providers could offer different monthly or peak period only offers.

In conclusion, the IE finds that PG&E's decision to select the Compliant Shortlist was a reasonable decision for several reasons:

- The Compliant Shortlist selects offers in rank order based on Net Market Value. The Portfolio selects offers up to the cost cap and also meets the 10% Net Entrant set-aside target, while maximizing the amount of MWs selected at the lowest weighted average cost;

- [REDACTED] No offers were eliminated as a result of comparison of offers prices to LRAC or price outliers;
- It did not appear after review of the CPUC Decision that utilities were required to include QC assessments as part of the offer evaluation and selection process for this DRAM solicitation. As a result, the Compliant Shortlist was consistent with regulatory requirements and did not involve subjective judgement as part of the selection process;
- The Energy Division and Utilities appeared to agree prior to issuance of the RFO Protocols that inclusions of QC assessments as part of the evaluation process were

not reasonable since bidders were not informed in advance of issuance of the RFO that such a criterion would be considered in the evaluation and selection process;

[REDACTED]

Notification to Bidders

Prior to notifying bidders of selection, PG&E and the Energy Division had several communications regarding the shortlist selection and the inclusion of the QC assessment as a factor in the evaluation and selection of offers.

PG&E notified bidders on December 12, 2019 of the status of their offers. For those Bidders who were selected, PG&E notified the bidders that PG&E intended to provide the purchase agreement by the morning of December 13, 2019. PG&E provided the agreement as scheduled.

Contract Execution

The final steps in the DRAM 5 RFO process involved shortlist notification through contract execution. In the letter sent to bidders who were awarded contracts, PG&E informed the counterparties which offers were selected. PG&E also notified the bidder that an officer of the bidder was required to execute a copy of the notification letter and return the executed signature to PG&E by December 16, 2019, indicating whether they accepted the shortlist offer. As PG&E noted to the bidder, by returning the letter to PG&E the bidder was agreeing that it would not commit or offer, into any other solicitation or to any other party, any of the Products from the DRAM Resources that is the subject of the Offers listed in the notification letter and in Table 1 of the Purchase Agreement. PG&E also informed bidders with offers selected that signed Word versions of Purchase Agreements were due on December 17, 2019. In addition to the online submittal, the Seller must also send two hard copies containing the Seller's two original signature pages to PG&E's offices by the December 17, 2019 deadline. PG&E also identified the amount of Performance Assurance due and informed bidders that Performance Assurance was due 10 business days after the Execution Date of the PA.

All offers by PG&E to selected participants to execute contracts were accepted by the participants. The participants provided executed copies of the contracts back to PG&E by December 17, 2019.

As a result, PG&E ended up contracting for 98.92 MW of 2020 August capacity at a total cost of [REDACTED].

Appendix B contains applicable information for each contract executed that supports the summary information for the MW executed provided above.

VI. Fairness of PG&E's Offer Evaluation and Selection Process

Principles Used to Determine Fairness of the Solicitation Process

In evaluating PG&E's performance in implementing the DRAM 5 RFO, Merrimack Energy has applied a number of principles and factors, which incorporate those suggested by the Commission's Energy Division as well as additional principles that Merrimack Energy has used in its oversight of other competitive bidding processes. These include:

- Were bidder questions answered fairly and consistently and the answers made available to all?
- Did the bid evaluation team maintain consistent scoring and evaluation among and across projects, including different products, offer metrics and price structures?
- Did the evaluation methodology result in a fair and equitable evaluation and selection process?
- Was the evaluation and selection process consistent with the requirements outlined in the CPUC Resolutions and Decisions and Energy Division guidance with regard to the DRAM RFO process?
- Were the requirements listed in the DRAM RFO applied in the same manner to all proposals?
- Was there evidence of any undue bias regarding the evaluation and selection of different offers that cannot be reasonably explained?
- Were the offers given equal credibility in the economic evaluation?
- Did PG&E ask for "clarifications" that provided the bidder an advantage over others?
- Were all cost factors treated in an equitable and consistent manner?
- Did PG&E consistently apply the requirements, procedures and criteria of the evaluation process as identified in the RFO documents to different bids and types of projects?
- Was the evaluation and selection process based on complete information about each proposal and a thorough investigation by PG&E's project team?

Merrimack Energy has the following observations about the process based on our role as IE:

- Overall, the IE viewed the offer evaluation and ranking process used by PG&E as being reasonable, consistent, and fair to all participants and consistent with the pre-specified evaluation protocols and criteria identified in PG&E's DRAM 5 RFO Solicitation Protocol documents. PG&E followed the process and methodology it had identified, including the guidance provided by CPUC Decisions, in ranking and selecting offers;
- PG&E's evaluation and selection process resulted in PG&E meeting its targets subject to the budget amounts and New Entrant target requirements identified in the Commission Decisions which apply to the DRAM 5 RFO. PG&E's evaluation and selection process resulted in the following outcomes:
 - PG&E contracted for 98.92 MW of RA capacity for August, 2020;
 - PG&E met the New Entrant Set-Aside requirement of 10%, with new entrants accounting for 23% of August capacity;
 - PG&E's expenditures of [REDACTED] plus administrative costs results in PG&E spending approximately its budget cap of \$5.7 million;
- Based on our assessment of the evaluation process relative to the above criteria, it is our opinion that all participants had access to the same amount and quality of information at the same time via PG&E's website. PG&E maintained a website dedicated to the solicitation and posted all documents and Questions and Answers on the website. PG&E also utilized the PowerAdvocate Platform for bidders to submit their offers. The IE also observed no difference in the treatment of participants regarding clarification questions for participants, correspondence and communications with participants, and follow-up contacts. PG&E (in conjunction with the other IOUs) also conducted a Pre-Bid Web Conference call which allowed all potential bidders to ask clarifying questions about the DRAM RFO and related requirements;
- PG&E and the other IOUs were diligent in answering questions submitted by potential bidders and were thorough and complete in their responses. The answers were posted on the websites of the three IOUs;
- The outreach activities of the IOUs were broad and far reaching. There was no lack of effort in targeting potential DRAM suppliers. Despite the outreach efforts, the number of bidders continues to be flat;
- Only [REDACTED] eligible offers were priced above the LRAC, however, neither offer was eliminated because PG&E was able to procure offers with higher Net Market Values and never reached these offers in its stack;
- With the exception of the application of different methodologies used for comparison of offer prices to long-run avoided cost which was complicated by the 7-month delivery period, the IOUs have generally developed a consistent evaluation methodology for evaluation and ranking of DRAM offers. While the

quantitative evaluation methodology is consistent among the three utilities, difference remain with regard to the application of qualitative criteria;

- The PRG was actively involved in the DRAM 5 RFO process via PG&E's presentation on Final Offer Selection on December 5, 2019. The presentation included a discussion of DRAM 5 offer selection criteria requirements, offer viability assessment, overview of the DRAM market, a summary of the offers received, description of [REDACTED] potential shortlists, a recommended shortlist and basis for selection, the RFO schedule, and back-up information.

Our assessment is that PG&E's evaluation of the offers and its decisions on offer ranking and selection were fair, reasonable and consistent.

VII. Contract Negotiation Process

The 2019 DRAM 5 RFO Pro Forma Purchase Agreement ("2020 DRAM PA") is a standard contract which incorporates elements of the Edison Electric Institute ("EEI") Master Power Purchase and Sale Agreement between the Parties used in RA contracts, and elements of existing DR contracts. Since the DRAM PA was intended to be executed without negotiations or changes, participants were not allowed to provide a redline mark-up.

VIII. Safeguards and Methodologies Employed

Sections VI, Confidentiality and Section XI, Bidder's Representations and Warranties in PG&E's 2020 DRAM RFO Solicitation Protocol address safeguards in the process. Section VI states that no Bidder shall collaborate on or discuss with any other Bidder or potential Bidder offer strategies, the substance of any Offer(s), including without limitation the price or any other terms or conditions of any Offer(s), or whether PG&E has selected Offers or not. Section XI addresses Bidder acknowledgement of the conditions of the RFO. Bidder acknowledges that it has read, understands and agrees to be bound by all terms, conditions and other provisions of the Solicitation Protocol. Also, another provision in this section is that Bidder acknowledges that it has not engaged, and covenants that it will not engage, in any communications with any other actual or potential Bidder in the RFO concerning this solicitation, price terms in Bidder's Offer, or related matters and has not engaged in collusion or other unlawful or unfair business practices in connection with the RFO.

No affiliate proposals were submitted.

IX. Recommendation For Contract Approval

The CPUC IE Report Template requires that the IE address the question, "Based on your analysis of the proposals received and available, the bid process, and the overall market does the contract merit Commission approval? Explain." The resulting contracts from this

solicitation include 5 Purchase Agreements with five Demand Response Providers.⁴³ The agreements resulted from a competitive solicitation process that generated a reasonable but stable level of competition for the Demand Response RA products subject to the requirements and constraints for this solicitation. As discussed in the previous sections, the solicitation was conducted consistent with the utility's protocols and was required to meet the provisions identified in the CPUC Decisions and Resolutions.

Since the contracts were essentially standard contracts, there was no formal contract negotiation process with any participant. Instead, the process of completing and executing contracts generally involved clean-up items such as the name of the counterparty, contact information, verification of pricing, contract volumes and delivery periods, and agreement on the level of credit required.

The contracts executed were selected in rank order, with acknowledgement of offers that were mutually exclusive from the same Seller. PG&E was able to meet the DRAM 5 RFO program requirements as contained in CPUC Decision 19-07-009 with regard to the spending caps and New Entrant set-aside. Overall, the 5 contracts executed were reasonably selected and executed, and merit approval. Through this solicitation, PG&E procured 98.92 MW of August 2020 capacity at a cost of approximately \$5.7 million.

As a result, the IE concludes that the resulting contracts are reasonable and appropriate.

X. Conclusions and Recommendations

The results of PG&E's 2020 DRAM 5 RFO Solicitation process for DR products are generally consistent with policy objectives. First, the response of the market was reasonably robust in that there were sufficient offers to generate a competitive market response but from the IE perspective was disappointing overall. While the overall number of offers submitted was slightly above the number of offers received in the DRAM 4 solicitation, the number of bidders was the same ■ as in the DRAM 4 solicitation but much less than the peak of ■ Bidders in the 2017 DRAM solicitation. In addition, the number of August MWs offered for the DRAM 5 solicitation was lower than for the DRAM 4 solicitation. ■ new Entrants submitted offers for the 2020 DRAM 5 solicitation ■

In terms meeting the bid selection criteria, PG&E was able to execute contracts that resulted in spending levels at approximately the budget cap including administrative costs, while at the same time meeting the 10% new market entrant set-aside requirement. PG&E selected offers in rank order consistent DRAM bid selection criteria and did not bypass any offers due to comparison of prices relative to long-run avoided cost of generation or price outliers.

⁴³ As listed in Appendix B, there were 5 contracts executed representing ■ selected offers. This resulted from aggregating similar offers into fewer overall contracts.

The IE reviewed the market response and pricing from the previous four DRAM pilots undertaken by PG&E in an attempt to assess market trends on a high level. On the positive side, the clear evidence is that offer prices have fallen considerably from DRAM 1 to DRAM 5 for August deliveries and for offers overall. For PG&E, the results of the DRAM 5 solicitation revealed for the first time a number of offers with positive Net Market Values (offers benefits exceeding offer costs). For the DRAM 5 solicitation, ■ of the 96 offers submitted were evaluated to have a positive Net Market Value.

However, there are also a few negative trends that are emerging. As noted, the number of participants has declined from the peak which occurred in DRAM 2 to the recent DRAM 5 solicitation. Second, the response of the market to the New Entrant set-aside was limited with only ■ new entrants participating. Third, ■ of Bidders submitted residential offers, a decline from previous solicitations. Fourth, nearly 60% of the August MWs selected were awarded to two Bidders ■.

Several issues emerged during the DRAM 5 solicitation process that have important ramifications for future solicitations. The first issue involved the application of the QC assessments and related data as an evaluation and selection criteria. While there were a number of discussions between the Energy Division, IOUs and IE regarding the application of QC assessments as an evaluation factor, the parties could not agree if (1) Decision D.19-07-009 required the use of the QC data for evaluation purposes for the DRAM 5 solicitation or as a data requirement for review and potential future use and (2) how such information would be used as an evaluation criteria. The RFO protocols of all three utilities were issued to the market and the Pre-Bid Webinar was held without any resolution of this issue. Some time after offers were received the issue about application of the QC assessments for evaluation and ranking was again raised as a required factor influencing offer selection.

The IE opined that the inclusion of such an evaluation criterion after receipt of proposals was unfair and inconsistent with the principles of an effective and transparent competitive solicitation process and could jeopardize the integrity of the process for several reasons. First, Bidders were not aware that such a criterion would be used for evaluation purposes at the time they submitted their offers. Bidders may have bid differently if they were aware that such information would be required. Second, the internal evaluation criteria on which the evaluation and selection of offers based on QC assessment data would be undertaken was not developed prior to receipt of offers. Creating such evaluation criteria after-the-fact (of issuance of an RFO) could be construed to create potential biases in the selection process.⁴⁴ Third, incorporating such criteria without informing bidders could negatively affect bidders view of the process and chill future market responses for the DRAM solicitation. Fourth, the IE reviewed Decision D.19-07-009 and could not find any specific references requiring QC assessments to be used as an evaluation and selection criteria for the DRAM 5 solicitation. On page 57 of the Decision it states that “The Joint Demand Response Parties recommend the Utilities use a subjective factor to weight the selection of bids such that good performers receive a favorable weighting versus poor performers or bad actors.” However, we could not find any response to this suggestion in the Decision,

⁴⁴ See the third bullet under Resolution E-4817 on page 12 of this report for a description of transparency of information in a competitive solicitation process as included in a previous DRAM Resolution.

which led us to conclude that the Decision does not require that QC assessments be used for evaluation and selection in DRAM 5. There have already been a number of previous DRAM participants that have appeared to have dropped out of the DRAM process and our concern is that this could be further exacerbated if the bidders are uncertain of the “rules of the game” at the time they developed and submitted their offers.

A second issue that emerged during the DRAM 5 solicitation was the methodology for comparing offer prices to long-run avoided cost (LRAC) as a means of not selecting an offer. In the DRAM 4 solicitation, the utilities all applied a consistent methodology based on a 12-month average price of the offers submitted since the DRAM 4 process requested delivery terms up to 12 months. PG&E recognized that using this same methodology would have resulted in number of offers being priced above LRAC. PG&E and Merrimack Energy discussed other options given that the DRAM 5 solicitation only included up to a 7-month delivery term. Applying the weighted average pricing for the seven-month delivery term and applying the price over twelve months results in pricing for the peak summer months included in the delivery term having a significant influence on the weighted average price. PG&E reviewed the methodology used by E3 for calculating the LRACs and recognized that the annual LRAC value was allocated to just the three summer months. As a result, PG&E decided to calculate the weighted average cost of the offers submitted over the seven- month delivery period and compare the weighted average cost to the LRAC as the basis for determining if offer pricing exceeded the LRAC. Based on this methodology, only two offers had pricing that exceeded the LRAC. As a result, PG&E did not bypass or exclude any offers in its evaluation and selection. The IE concluded that this methodology was reasonable and consistent.

For the reasons stated herein, Merrimack Energy concludes that the short-listing decisions by PG&E in the 2020 DRAM 5 RFO pilot were reasonable and based on the requirements and evaluation criteria set forth in the RFO documents. PG&E followed its established protocols and methodology in evaluating and selecting offers for the DRAM 5 RFO RA capacity requirements. The resulting 5 contracts from [REDACTED] offers selected are for DRAM Purchase Agreements with five counterparties, representing approximately 99 MW of August 2020 capacity. We believe the PAs are reasonable, are in the best interests of customers under the parameters of the DRAM pilot and should be approved.

Recommendations

Based on our involvement throughout the process, the IE has the following recommendation for PG&E for undertaking future similar solicitations:

- The utilities had the opportunity to collect and review QC assessment data through this DRAM 5 solicitation. [REDACTED]
[REDACTED] Merrimack Energy actually recommended that qualitative criteria should be developed for assessing the viability of bidders in our previous IE report for DRAM 4. Given the issues associated with the

positions of the parties regarding the use of QC assessments as an evaluation criteria, the IE recommends that the IOUs and Energy Division work together to address potential approaches that could be used to assess bidders viability as an evaluation criteria and ensure bidders are informed of the methodologies in the IOU DRAM 6 protocol documents prior to submitting offers;

- The utilities and Energy Division should undertake a review and assessment of the factors leading to the decline in interest in the DRAM solicitation process on the part of participants. Before proceeding with DRAM 6, the IE suggests that either the IE or Energy Division conduct a survey of all the market participants that have participated in past DRAM auctions to assess the reasons for not competing in recent solicitations. The IE conducted a survey of all DRAM participants in the DRAM 1 RFO solicitation. We would recommend that a follow-up survey of all bidders who have participated in the five DRAM solicitations should be conducted to assess the reasons why so many of the participants have dropped out of the DRAM RFO process;
- The IE recommends that the Energy Division reassess the methodology used in calculating a normalized cost in order to be compared against the long-run avoided cost in \$/kW-year terms that can be applied consistently for all bids for all three IOUs. The concern is that a lack of consistency in the methodology may cause issues with bidders and damage potential bidders' trust in the program. Since this solicitation was only for a seven-month contract term, the issue was more apparent; however, in the future, bidders may offer partial delivery as well, and this concern may resurface;
- The IE also recommends that the CPUC reconsider inclusion of the New Entrant set-aside for future DRAM solicitations. It did not appear that the New Entrant set-aside had much of an impact on encouraging new entrants for DRAM 5;
- The IE recommends that the Energy Division provide clear guidance as to how past performance and QC assessments be incorporated into the evaluation process. It is important to develop a clear methodology and criteria regarding how the QC assessments will be evaluated to ensure that a well-defined and objective scoring system is applied to all offers. This is important to maintain consistency and transparency in the process. Some considerations could include:
 - Are residential offers viewed differently than non-residential offers?
 - Is there a threshold for the percentage of currently registered service accounts (compared to service accounts that have not been registered yet) to be deemed acceptable?
 - Does past performance impact QC assessments submitted?
 - Are there considerations for types of technologies used?

- Are there thresholds for acceptable demand reductions per service account and what factors impact the acceptable reductions (residential vs. non-residential, technology type, location, etc.)?
- Is the scoring system binary, as in reasonable vs. unreasonable? Or is there a sliding scale approach?
- If the new entrant set-aside is maintained, how should such QC assessments be applied to new entrants without past experience?

Appendix E

PG&E's Pro Forma 2020 DRAM Purchase Agreement

[Note: Modifications to this form agreement have been made to address United States Bankruptcy Court Northern District Chapter 11 cases 19-30088 (DM) and 19-30089 (DM). This form of agreement is to be utilized until Buyer's exit from these Chapter 11 cases has occurred.]

2020 DRAM RFO PRO FORMA

**DEMAND RESPONSE AUCTION MECHANISM RESOURCE PURCHASE
AGREEMENT**

between

[NAME OF SELLER]

and

PACIFIC GAS AND ELECTRIC COMPANY

DEMAND RESPONSE AUCTION MECHANISM RESOURCE PURCHASE AGREEMENT
BETWEEN
[SELLER]* AND *PACIFIC GAS AND ELECTRIC COMPANY

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**DEMAND RESPONSE RESOURCE PURCHASE AGREEMENT
BETWEEN
[SELLER] AND PACIFIC GAS AND ELECTRIC COMPANY**

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BETWEEN
[SELLER] AND PACIFIC GAS AND ELECTRIC COMPANY**

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BETWEEN
[SELLER] AND PACIFIC GAS AND ELECTRIC COMPANY

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DEMAND RESPONSE RESOURCE PURCHASE AGREEMENT
BY AND BETWEEN
[NAME OF SELLER]
AND
PACIFIC GAS AND ELECTRIC COMPANY

PREAMBLE

This Demand Response Resource Purchase Agreement, together with its exhibits (the “Agreement”) is entered into by and between Pacific Gas and Electric Company, a California corporation (“Buyer”), and *[Aggregator or Demand Response Provider]*, a *[Seller’s business registration]* (“Seller”), as of the latest signature date hereof (“Execution Date”). Buyer and Seller are referred to herein individually as a “Party” and collectively as “Parties.” Unless the context otherwise specifies or requires, capitalized terms in this Agreement have the meanings set forth in Exhibit A.

AGREEMENT

In consideration of the agreements contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows.

ARTICLE 1. TRANSACTION

1.1. Purchase and Sale of the Product

- (a) During the Delivery Period, Seller shall sell and deliver, and Buyer shall purchase and receive, the Product as indicated in Table 1.1(b) in the amount of the Monthly Contracted Quantity, as indicated in Exhibit E, subject to and in accordance with the terms and conditions of this Agreement. The Product shall be a Proxy Demand Resource (PDR).
- (b) The Product is:

TABLE 1.1(b)	
Product Selected	Product
<input type="checkbox"/>	Product A: System Capacity
<input type="checkbox"/>	Product C1-0: Flexible Capacity (Flexible Category 1) with System Capacity
<input type="checkbox"/>	Product C2-0: Flexible Capacity (Flexible Category 2) with System Capacity
<input type="checkbox"/>	Product C3-0: Flexible Capacity (Flexible Category 3) with System Capacity

(c) Seller to indicate whether the Product is:

____ a Residential Customer Product; or

____ not a Residential Customer Product

{Seller to choose only one option which applies to all Product for this Agreement}

(d) If Seller has chosen to deliver Product that is not Residential Customer Product, its DRAM Resource may nevertheless include Residential Customers and Small Commercial Customers.

1.2. Term

The “Term” of this Agreement shall commence upon the Execution Date and shall continue until the expiration of the Delivery Period.

1.3. Delivery Period

The “Delivery Period” shall commence on the later of (a) the first day of the first month that begins after seventy-five (75) calendar days following CPUC Approval, and (b) *[Date]*, and shall continue in full force and effect until *[Date]* *{The Date should be the last calendar day of the last Showing Month}*, unless terminated earlier in accordance with the terms and conditions of this Agreement. Notwithstanding anything to the contrary contained in this Agreement, the Delivery Period will not commence until CPUC Approval is obtained or waived by Buyer in its sole discretion.

{Dates will be based on Seller’s bid that was selected by Buyer in the RFO. Currently that would be no earlier than [month, year] and no later than [month, year].}

1.4. Seller’s Designation of the DRAM Resource

- (a) On or before the date that is seventy-five (75) calendar days prior to the first Showing Month, and on a monthly basis thereafter no less than seventy-five (75) calendar days prior to the applicable Showing Month if any of the information below changes, Seller shall:
 - (i) Provide to Buyer the Resource ID(s) for each PDR providing the Product pursuant to this Agreement.
 - (ii) Confirm in writing to Buyer that each PDR identified by Seller pursuant to Section 1.4(a)(i) is comprised solely of Bundled Service Customers, comprised solely of Unbundled Service Customers, or comprised of a mixture of Bundled and Unbundled Service Customers.
 - (iii) If the Product pursuant to this Agreement is a Joint Resource, Seller shall confirm in writing to Buyer (x) the amount of the capacity of such Joint Resource that will be used to show Demonstrated Capacity under this Agreement and (y) the total capacity of such Joint Resource.

- (b) Sellers shall sell and deliver System Capacity, Local Capacity, and/or Flexible Capacity from PDRs, as designated in Section 1.1(b).
- (c) The Parties shall cooperate to implement the requirements of Rule 24 to enroll Resource Customers in order for Seller to designate the PDR(s) pursuant Section 1.4(a)(i).

1.5. Monthly Contracted Quantity and Corresponding Contract Price

- (a) The Monthly Contracted Quantity and Contract Price for the type of Product indicated in Table 1.1(b) for each applicable Showing Month during the Delivery Period is set forth in Exhibit E.
- (b) In the event that Seller is not able to register the DRAM Resource for part or all of a Monthly Contracted Quantity for a Showing Month due solely to (i) the actions or inactions of Buyer or the CAISO, or (ii) insufficient Rule 24 registrations under CPUC Resolution E-4837 and CPUC Resolution E-4983, then Seller may, in its sole discretion, by providing Notice to Buyer on or before the date that is sixty (60) calendar days prior to the Showing Month for which Seller is unable to register the DRAM Resource, reduce the Monthly Contracted Quantity for the unregistered capacity by type of Product for such Showing Month; provided, Seller shall demonstrate to Buyer's reasonable satisfaction that Seller made commercially reasonable efforts to register the DRAM Resource corresponding to such reduced Monthly Contracted Quantity for the unregistered capacity by type of Product in the applicable Showing Month.
- (c) In the event that material changes to definition of Resource Adequacy, including but not limited to changes in the Resource Adequacy Availability Assessment Hours, are adopted during the Term of this Agreement, then Seller may, in its sole discretion, by providing Notice to Buyer on or before December 31, 2019, either (i) reduce the Monthly Contracted Quantity for the following year or (ii) terminate this Agreement.
- (d) Seller's exercise of its rights under Sections 1.5(b) or (c) will not be deemed to be a failure of Seller's obligation to sell or deliver the Product or a failure of Buyer's obligation to purchase or receive the Product, and will not be or cause an Event of Default by either Party. Neither Party shall have any further obligation or liability to the other and no Settlement Amount with respect to this Agreement will be due or owing by either Party upon termination of this Agreement due solely to Seller's exercise of its rights under Section 1.5(c).

1.6. Demonstrated Capacity

- (a) Each invoice submitted by Seller to Buyer pursuant to Section 4.2 shall include a statement, in a form substantially similar to Exhibit C, of the amount of the Qualifying Capacity for each type of Product for such Showing Month that Seller was capable of delivering ("Demonstrated Capacity"), utilizing the results from one of the following methods, as provided below (subject to the additional restrictions set forth in Section 1.6(b)):
 - (i) The results of a DC Dispatch of the applicable PDR in the DRAM Resource during such Showing Month. The Demonstrated Capacity for System and Local Capacity will equal the maximum hourly load reduction of such DC Dispatch as calculated using the Capacity Baseline; provided that, for the Showing Month of

August, the Demonstrated Capacity for System and Local Capacity will equal the average hourly load reduction of such DC Dispatch as calculated using the Capacity Baseline. The Demonstrated Capacity for Flexible Capacity will equal the average hourly load reduction of such DC Dispatch as calculated using the Capacity Baseline. If the CAISO issues a dispatch instruction for less than one hundred percent (100%) of the Qualifying Capacity of the applicable PDR in the DRAM Resource (a “Partial DC Dispatch”), then Seller may elect to submit the results of such Partial DC Dispatch during such Showing Month for its Demonstrated Capacity showing. Upon such election, the load reduction resulting from such Partial DC Dispatch shall be compared to the Qualifying Capacity of the entire PDR for purposes of deriving the DC-QC Ratio of the DRAM Resource in accordance with Section 4.1.

- (ii) The results of a DC Test in the event that (A) there is no DC Dispatch of the PDR in the DRAM Resource for one hundred percent (100%) of the Qualifying Capacity of the applicable Showing Month, and (B) Seller does not submit the results of a Partial DC Dispatch during the Showing Month as contemplated under 1.6(a)(i) above. The Demonstrated Capacity for System and Local Capacity will equal the maximum hourly load reduction during any hour of such DC Test as calculated using the Capacity Baseline; provided that, for the Showing Month of August the Demonstrated Capacity for System and Local Capacity will equal the average hourly load reduction during any two (2) consecutive hours as calculated using the Capacity Baseline. The Demonstrated Capacity for Flexible Capacity will equal the average hourly load reduction during any hour of such DC Test as calculated using the Capacity Baseline; provided that, for the Showing Month of August the Demonstrated Capacity for Flexible Capacity will equal the average hourly load reduction during any two (2) consecutive hours as calculated using the Capacity Baseline.
 - (iii) In the event that (A) there is no DC Dispatch of the PDR in the DRAM Resource during the Showing Month for one hundred percent (100%) of the Qualifying Capacity of the applicable Showing Month, (B) Seller does not submit the results of a Partial DC Dispatch as contemplated under 1.6(a)(i) above, and (C) there is no DC Test of the PDR in the DRAM Resource during the Showing Month as contemplated under 1.6(a)(ii) above, the Demonstrated Capacity will equal the average amount of capacity for such PDR in the DRAM Resource that the Seller bid into the applicable CAISO Markets solely during the Availability Assessment Hours of the Showing Month in compliance with the CAISO MOO.
- (b) Seller’s use of the methods described in Sections 1.6(a)(i)-(iii) is subject to the following additional restrictions:
- (i) Demonstrated Capacity for each PDR in the DRAM Resource must be calculated under Section 1.6(a)(i) or 1.6(a)(ii) for the August Showing Month of each year and for at least fifty percent (50%) of all contracted Showing Months during the Delivery Period (rounded downward if the Delivery Period is an odd number of Showing Months). For example, if the Delivery Period consists of seven (7) Showing Months, then a DC Test or DC Dispatch shall be required for at least three (3) of such Showing Months, including the Showing Month of August.

- (ii) Demonstrated Capacity for any PDR in the DRAM Resource shall not be calculated under Section 1.6(a)(iii) for more than five (5) consecutive Showing Months during the Delivery Period (prorated, if the Delivery Period is less than twelve (12) Showing Months, to a number equal to half of the Showing Months in the Delivery Period minus one: e.g., two consecutive Showing Months for a six-month Delivery Period).
- (c) The same Capacity Baseline must be used (i) to estimate Qualifying Capacity for Seller's month-ahead submissions pursuant to Section 3.1(a) for a Showing Month; (ii) to calculate Demonstrated Capacity for the applicable Showing Month; and (iii) for energy settlement at the CAISO for the applicable Showing Month.
- (d) Solely for purposes of establishing the Demonstrated Capacity pursuant to Section 1.6(a), Seller shall use data available through Buyer's Customer Data Access Systems that has been designated by Buyer as final Revenue Quality Meter Data and such data shall be considered final by the Parties as of the date Seller submits its invoice for the applicable Showing Month to Buyer.
- (e) If the DRAM Resource is composed of more than one PDR, then:
 - (i) Seller may establish the portion of the Demonstrated Capacity for each such PDR by using the methods described in Sections 1.6(a)(i) through (iii), in which case the Demonstrated Capacity will equal the sum of the individual PDRs' Demonstrated Capacities.
 - (ii) The Showing Months in which DC Dispatches or DC Tests are conducted may be different for each such PDR except for the Showing Month of August, in which a DC Dispatch or DC Test is required for every PDR in the DRAM Resource pursuant to Section 1.6(b)(i).
- (f) With respect to any DRAM Resource Customer service account that was moved in a Showing Month pursuant to Section 3.4(d), Seller shall include the performance of such DRAM Resource Customer service account only in one PDR for purposes of the calculation of Demonstrated Capacity for such Showing Month.
- (g) If any respective PDR in the DRAM Resource is a Joint Resource, Seller's invoice shall indicate (i) the amount of the capacity of such Joint Resource used to show Demonstrated Capacity for a specific type of Product for such Showing Month and (ii) the total capacity of such Joint Resource during such Showing Month.
- (h) If the type of Product Seller delivers under this Agreement is a Residential Customer Product, Seller's invoice shall indicate the number of Residential Customer SAID agreements and the number of Small Commercial SAID accounts in each PDR for such type of Product.
- (i) In addition to the requirements in Section 1.6(a), if Seller is electing Demonstrated Capacity for Local Capacity, then, as part of Seller's Demonstrated Capacity for Local Capacity, Seller's invoice shall indicate the number of SAID agreements in the applicable LCA that are associated with the Local Capacity as indicated in Table 1.1(b) and Exhibit C.

- (j) Following Buyer's receipt of Seller's invoice and Notice of Demonstrated Capacity, Buyer may, upon Notice to Seller, require Seller to provide documentation from Seller or Seller's SC that establishes to Buyer's reasonable satisfaction the Demonstrated Capacity of each Product type from a PDR or Joint Resource as stated by Seller in its invoice for the applicable Showing Month. In the event that Seller does not provide such documentation within ten (10) Business Days from Buyer's Notice or such documentation is not reasonably satisfactory to Buyer, then Buyer may require an audit of Seller or Seller's SC records upon Notice ("Audit Notice"). With respect to an Audit Notice, Seller shall cause its SC to allow Buyer or its designated independent third-party auditor to have access to the records and data necessary to conduct such audit within five (5) Business Days of Seller's receipt of an Audit Notice; provided, such audit will be limited solely to verification of the data upon which Seller based its claim of the amount of the Demonstrated Capacity. If the type of Product designated in Section 1.1(b) is a Residential Customer Product, then, in addition to the documentation specified above, Buyer may, in its Audit Notice, require Seller or Seller's SC to provide additional documentation that establishes to Buyer's reasonable satisfaction that the type of Product is Residential Customer Product as stated by Seller in its invoice for the applicable Showing Month. Buyer's costs, including the costs for any third-party auditor, incurred in connection with the conducting such audit are the sole responsibility of Buyer.

ARTICLE 2. CPUC APPROVAL

2.1. Obtaining CPUC Approval

Within thirty (30) calendar days after the Execution Date, Buyer shall file with the Commission the appropriate request for CPUC Approval. Seller shall use commercially reasonable efforts to support Buyer in preparing for and obtaining CPUC Approval. Buyer has no obligation to seek rehearing or to appeal a Commission decision which fails to approve this Agreement or which contains findings required for CPUC Approval with conditions or modifications unacceptable to either Party.

2.2. CPUC Approval Termination Right

- (a) Either Party has the right to terminate this Agreement upon Notice, which will be effective five (5) Business Days after such Notice is given, if (i) CPUC Approval has not been obtained or waived by Buyer in its sole discretion within sixty (60) calendar days after Buyer files its request for CPUC Approval and (ii) such Notice of termination is given on or before the ninetieth (90th) day after Buyer files the request for CPUC Approval.
- (b) Failure to obtain CPUC Approval in accordance with this Article 2 will not be deemed to be a failure of Seller to sell or deliver the Product or a failure of Buyer to purchase or receive the Product, and will not be or cause an Event of Default by either Party. No Settlement Amount with respect to this Agreement will be due or owing by either Party, and neither Party shall have any obligation or liability to the other, upon termination of this Agreement due solely to failure to obtain CPUC Approval.

ARTICLE 3. SELLER OBLIGATIONS

3.1. Delivery of Product

- (a) No later than the deadlines set forth in subsections (i) and (ii) below, Seller shall submit, or cause Seller's SC(s) to submit:
 - (i) No later than fifteen (15) calendar days prior to Buyer's Compliance Showing deadlines each year or Showing Month (as applicable), Notice to Buyer which shall include Seller's Supply Plan for such year or Showing Month (as applicable) in (A) a form substantially similar to Exhibit D, or (B) a form as communicated in writing by Buyer to Seller no later than fifteen (15) Business Days prior to Buyer's Compliance Showing deadlines for such year or Showing Month (as applicable). Such Supply Plan shall include the Qualifying Capacity for each PDR identified by Seller pursuant to Section 1.4(a)(i), the sum of which shall not exceed the Monthly Contracted Quantity.
 - (ii) No later than ten (10) Business Days prior to the deadline for Seller's Supply Plan submission in subsection (i) immediately above, the additional information required by the implementation guidelines set forth in D.19-07-009, Appendix A, as modified by D.19-09-041, attached hereto as Exhibit F (the "QC Implementation Guidelines"), including the Qualifying Capacity for each PDR identified by Seller pursuant to Section 1.4(a)(i), presented in the standardized reporting format developed by the CPUC pursuant to Ordering Paragraph 8 of D.19-07-009, as modified by D.19-09-041.
- (b) Seller shall, on a timely basis, submit, or cause its SC to submit, a Supply Plan to CAISO in accordance with the CAISO Tariff. The quantities in the Supply Plan that is submitted to the Buyer under Section 3.1(a)(i) shall exactly match what is submitted by the Seller or its SC to the CAISO due on the earliest monthly applicable Buyer's Compliance Showing deadlines with CAISO and CPUC.

3.2. Resource Adequacy Benefits

Seller grants, pledges, assigns, and otherwise commits to Buyer the Qualifying Capacity for each PDR specified in the Supply Plan and all Resource Adequacy Benefits of the Product as associated with the DRAM Resource to enable Buyer to meet its RAR, Local RAR and/or Flexible RAR, as applicable. The Parties shall take all commercially reasonable actions, and execute all documents or instruments necessary, to effect the use of the Product for Buyer's sole benefit.

3.3. Provision of Information

Within a reasonable period of time, or such time prescribed by the CPUC, Seller shall provide to the CPUC all information requested by the CPUC relating to Seller's obligations and performance pursuant to this Agreement and the DRAM to which this Agreement relates. In responding to any information request from the CPUC, the Seller may designate information for confidential treatment consistent with CAISO and/or Commission rule, tariff or decision. Any such confidential information provided by Seller to the CPUC shall be held in confidence by the CPUC and excluded from public inspection or disclosure, unless inspection or disclosure is otherwise required by Applicable Laws.

3.4. Seller's Obligations

- (a) Seller shall, and shall cause each of the PDRs in the DRAM Resource and corresponding DRPs and SCs to, comply with all applicable CAISO Tariff provisions, CPUC Decisions and all other Applicable Laws, including the Bidding of the DRAM Resource into the applicable CAISO Markets during the Availability Assessment Hours as required by the CAISO Tariff.
- (b) Seller shall or shall cause Seller's DRP to execute Buyer's Demand Response Provider Service Agreement in accordance with Rule 24.
- (c) Seller shall not include any Customer premises or resource in a PDR in the DRAM Resource that is concurrently enrolled in or otherwise concurrently committed to any other demand response program offered, maintained, or funded by Buyer (e.g., without limitation, behind-the-meter storage products in the Energy Storage RFO), or that is registered with CAISO as a part of any other demand response resource or Distributed Energy Resource Aggregation, other than as provided under this Agreement.
- (d) Seller shall not change or modify the customer composition of the DRAM Resource, including without limitation moving a DRAM Resource Customer service account in or out of any PDR of the DRAM Resource, during any Showing Month except under the following circumstances:
 - (i) Seller may add a newly recruited service account to a PDR in the DRAM Resource if that service account is not part of a PDR that is already included in a Supply Plan submitted by Seller to Buyer or any other LSE for the same Showing Month.
 - (ii) Seller may remove a service account from a PDR in the DRAM Resource.
 - (iii) If as a result of the changes in Sections 3.4(d)(i) and 3.4(d)(ii) a PDR in the DRAM Resource becomes large enough to trigger the CAISO's above 10 MW telemetry requirement, Seller may split the affected PDR into two or more smaller resources as necessary to comply with CAISO requirements.
 - (iv) If as a result of the changes in Sections 3.4(d)(i) and 3.4(d)(ii) a PDR in the DRAM Resource becomes small enough to drop below the 100 kW minimum PDR size requirement, Seller may combine the affected PDR with other resources as necessary to comply with CAISO requirements.
 - (v) If a service account has moved to a new LSE (e.g., to or from a community choice aggregator), and if the CAISO Tariff requires PDRs to consist of service accounts that are customers of the same LSE, then Seller may add or remove the affected service accounts as necessary to comply with CAISO requirements.

3.5. Indemnities for Failure to Perform.

Seller agrees to indemnify, defend and hold harmless Buyer from any costs, penalties, fines or charges assessed against Buyer by the CPUC, CAISO, FERC, or any other Governmental Body with jurisdiction over Buyer, resulting from Seller's failure to do, or cause to be done, any of the following:

- (a) Provide all of the Monthly Contracted Quantity in any Showing Month, except to the extent (i) such failure is solely the result of a failure by Buyer to perform any of its obligations pursuant to Section 6.2, or (ii) Seller reduces the Monthly Contracted Quantity in accordance with Section 1.5(b) or (c);
- (b) Submit timely and accurate Supply Plans that identify Buyer's right to the Monthly Contracted Quantity for each Showing Month;
- (c) Comply with the requirements in Section 3.2 to enable Buyer to meet its RAR;
- (d) Meet CPUC Resource Adequacy requirements per the CPUC RA Filing Guide; or
- (e) Comply with the CAISO Tariff.

With respect to the foregoing, the Parties shall use commercially reasonable efforts to minimize any such costs, penalties, fines and charges; provided, in no event will Buyer be required to use or change its utilization of its owned or controlled assets or market positions to minimize these costs, penalties, fines and charges. If Seller fails to pay the foregoing penalties, fines, charges, or costs, or fails to reimburse Buyer for those penalties, fines, charges, or costs, then Buyer may offset those penalties, fines, charges or costs against any amounts it may owe to Seller under this Agreement.

Notwithstanding Seller's obligations in Section 3.5(a), Seller is not required to indemnify or reimburse Buyer for any costs allocated to Buyer by the CAISO for any capacity procured by CAISO pursuant to the Capacity Procurement Mechanism with respect to any Shortfall Capacity.

ARTICLE 4. PAYMENT AND BILLING

4.1. Delivered Capacity Payment

Buyer shall make a monthly payment to Seller, after the applicable Showing Month, ("Delivered Capacity Payment") equal to the product of (A x B x C).

$$\text{Delivered Capacity Payment} = [A \times B \times C]$$

Where:

A = The Contract Price for the applicable Showing Month, including SC costs.

B = The value from the chart below corresponding to the applicable ratio of Demonstrated Capacity (which shall be a total sum of the individual PDRs in the DRAM Resource) as a percentage of the Qualifying Capacity (which shall be a total sum of the individual PDRs in the DRAM Resource) ("DC-QC Ratio"):

Delivered Capacity (DC) Payment Values		
Band	DC- QC Ratio	Value for B
Tolerance	> 90.00%	Qualifying Capacity (kW)

Delivered Capacity (DC) Payment Values		
Band	DC- QC Ratio	Value for B
Pro-rated	> 70.00% to 90.00%	Demonstrated Capacity (kW)
De-rated	50.00% to 70.00%	Demonstrated Capacity (kW) \times 75%
Forfeiture	< 50.00%	0

$C =$ 1.0 if Seller has chosen (i) not to deliver Residential Customer Product in Section 1.1(c) or (ii) to deliver Residential Customer Product in Section 1.1(c) and the Product delivered meets the definition of Residential Customer Product, or 0.90 if the Product delivered does not meet the definition of Residential Customer Product.

4.2. Invoice and Payment Process

- (a) Within thirty (30) calendar days after Seller has received Revenue Quality Meter Data for at least ninety-five percent (95%) of all intervals required for settlement of the DRAM Resource for the applicable Showing Month, Seller will render to Buyer an invoice for the Demonstrated Capacity and associated payment amount due, if any, with respect to such Showing Month. Seller's failure to render any invoice on or before the deadline set forth herein shall be deemed to be a submission by the Seller of a DC Dispatch-based invoice with Demonstrated Capacity at an amount below fifty percent (50%) of the Qualifying Capacity for the applicable Showing Month (i.e., within the "forfeiture" payment band in the chart in Section 4.1).
- (b) Buyer will pay Seller all undisputed invoice amounts on or before the later of (i) the twentieth (20th) calendar day of each month, or (ii) the tenth (10th) calendar day after receipt of Seller's invoice and Demonstrated Capacity or, if such day is not a Business Day, then on the next Business Day.
- (c) Each Party will make payments by electronic funds transfer, or by other mutually agreeable method(s), to the account designated by the other Party. Any amounts not paid by the due date will be deemed delinquent and will accrue interest at the Cash Interest Rate, such interest to be calculated from and including the due date to but excluding the date the delinquent amount is paid in full.
- (d) Buyer may offset against any future payments by any amount(s) that were previously overpaid.
- (e) Either Party may, in good faith, dispute the correctness of any invoice, bill, charge, or any adjustment to an invoice, rendered under this Agreement, or adjust any invoice for any arithmetic or computational error within twelve (12) months of the date the invoice, bill, charge, or adjustment to an invoice, was rendered. Disputes are subject to the provisions of Article 10 below. In the event an invoice or portion thereof, or any other claim or

adjustment arising hereunder, is disputed, payment of the undisputed portion of the invoice shall be required to be made when due, with Notice of the objection given to the other Party. Any invoice dispute or invoice adjustment shall be in writing and shall state the basis for the dispute or adjustment. Payment of the disputed amount shall not be required until the dispute is resolved. Upon resolution of the dispute, any required payment shall be made within ten (10) Business Days of such resolution.

- (f) Buyer may deduct any amounts that would otherwise be due to Seller under this Agreement from any amounts owing and unpaid by Seller to Buyer under this Agreement.
- (g) With respect to any Joint Resource, if Seller and any third party both submit claims to Buyer for payment with respect to such Joint Resource which, when added together, exceed the total capacity of the Joint Resource, Buyer shall not be obligated to make payment to Seller in respect of such Joint Resource until Seller reconciles the error with such third party and Seller re-submits the corrected invoice to Buyer.
- (h) With respect to a Joint Resource, if such Joint Resource's Demonstrated Capacity for a particular type of Product in any Showing Month is less than such Joint Resource's QC for such type of Product (as set forth in Exhibit C), Seller shall have the right to demonstrate to Buyer the Joint Resource's actual performance, and shall be compensated in accordance with Section 1.6. In the event Buyer finds Seller's demonstration inconclusive, the Joint Resource's total capacity shall be allocated pro-rata among the parties with rights to a portion of such Joint Resource's type of Product based on the information required to be provided in Section 1.6(g), and Seller's compensation shall be calculated using its percentage allocation of such PDR's capacity, accordingly.

4.3. Allocation of Other CAISO Payments and Costs

As between Buyer and Seller, Seller shall retain any revenues Seller or Seller's SC may receive from and pay all costs, penalties, charges charged to Seller or Seller's SC by the CAISO or any other third party in connection with the DRAM Resource, except as expressly provided otherwise in this Agreement.

ARTICLE 5. CREDIT AND COLLATERAL

5.1. Seller's Credit and Collateral Requirements

- (a) If, at any time during the Term Seller does not have a Credit Rating, or if its Credit Rating is below BBB- from S&P or Baa3 from Moody's, if rated by both S&P and Moody's or below BBB- from S&P or Baa3 from Moody's, if rated by either S&P or Moody's, but not both, Seller shall provide and maintain collateral with Buyer in an amount equal to twenty percent (20%) of the sum of the estimated Delivered Capacity Payments for all of the remaining months of the Delivery Period including the current month, with such estimated Delivered Capacity Payments being based on the applicable Monthly Quantity values times the applicable Contract Price ("Performance Assurance").
- (b) If Seller's Credit Rating is at or above BBB- from S&P and Baa3 from Moody's, if rated by both S&P and Moody's, or at or above BBB- from S&P or Baa3 from Moody's, if rated by either S&P or Moody's, but not both, Seller shall have no obligation to provide Performance Assurance to Buyer, and Sections 5.2 through 5.5 will not be applicable.

- (c) If required pursuant to Section 5.1(a), Seller shall post the Performance Assurance with Buyer within ten (10) Business Days of the Execution Date.

5.2. Grant of Security Interest/Remedies

- (a) To secure its obligations under this Agreement, and until released as provided herein, Seller hereby grants to Buyer a present and continuing security interest in, and lien on (and right of setoff against), and collateral assignment of, the Performance Assurance and all cash collateral and cash equivalent collateral and any and all proceeds resulting therefrom or the liquidation thereof, whether now or hereafter held by, on behalf of, or for the benefit of, such Buyer, and each Party agrees to take such action as the other Party reasonably requires in order to perfect Buyer's first-priority security interest in, and lien on (and right of setoff against), such Performance Assurance and collateral and any and all proceeds resulting therefrom or from the liquidation thereof. Upon or any time after the occurrence or deemed occurrence and during the continuation of an Event of Default or an Early Termination Date, Buyer, if it is the Non-Defaulting Party, may do any one or more of the following: (i) exercise any of the rights and remedies of a Buyer with respect to all Performance Assurance, including any such rights and remedies under law then in effect; (ii) exercise its rights of setoff against any and all property of the Defaulting Party in the possession of the Non-Defaulting Party or its agent; (iii) draw on any outstanding Letter of Credit issued for its benefit; and (iv) liquidate all Performance Assurance then held by or for the benefit of Buyer free from any claim or right of any nature whatsoever of the Defaulting Party, including any equity or right of purchase or redemption by the Defaulting Party. In such an event Buyer shall apply the proceeds of the collateral realized upon the exercise of any such rights or remedies to reduce Seller's obligations under the Agreement (Seller remaining liable for any amounts owing to Buyer after such application), subject to Buyer's obligation to return any surplus proceeds remaining after such obligations are satisfied in full.

5.3. Reduction and Substitution of Performance Assurance

- (a) If the amount of Performance Assurance held by Buyer exceeds the amount required pursuant to Section 5.1, on any Business Day, Seller may give Notice to Buyer requesting a reduction in the amount of Performance Assurance previously provided by Seller for the benefit of Buyer, provided that, (i) after giving effect to the requested reduction in Performance Assurance, no Event of Default or Potential Event of Default with respect to Seller has occurred and is continuing, (ii) no Early Termination Date has occurred or been designated as a result of an Event of Default with respect to Seller for which there exist any unsatisfied payment obligations, and (iii) no amounts are owing and unpaid from Seller to Buyer hereunder. A permitted reduction in Performance Assurance may be effected by the Transfer of Cash to Seller or the reduction of the amount of an outstanding Letter of Credit previously issued for the benefit of Buyer. Seller shall have the right to specify the means of effecting the reduction in Performance Assurance. In all cases, the cost and expense of reducing Performance Assurance (including, but not limited to, the reasonable costs, expenses, and attorneys' fees of Buyer) shall be borne by Seller. Unless otherwise agreed in writing by the Parties, if Seller's reduction demand is made on or before the Notification Time on a Business Day, then Buyer shall have five (5) Business Days to effect a permitted reduction in Performance Assurance, and if Seller's reduction demand is made after the Notification Time on a Business Day, then Buyer shall have six (6) Business Days to effect a permitted reduction in Performance Assurance, in each case, if such reduction is to be effected by the return of Cash to Seller.

If a permitted reduction in Performance Assurance is to be effected by a reduction in the amount of an outstanding Letter of Credit previously issued for the benefit of Buyer, Buyer shall promptly take such action as is reasonably necessary to effectuate such reduction.

- (b) Except when an Event of Default or Potential Event of Default with respect to Seller shall have occurred and be continuing or an Early Termination Date has occurred or been designated as a result of an Event of Default with respect to Seller for which there exist any unsatisfied payment obligations, Seller may substitute Performance Assurance for other existing Performance Assurance of equal value upon five (5) Business Days' Notice (provided such Notice is made on or before the Notification Time, otherwise the notification period shall be six (6) Business Days) to Buyer. Upon the Transfer to Buyer of the substitute Performance Assurance, Buyer shall Transfer the relevant replaced Performance Assurance to Seller within five (5) Business Days. Notwithstanding anything herein to the contrary, no such substitution shall be permitted unless (i) the substitute Performance Assurance is Transferred simultaneously or has been Transferred to Buyer prior to the release of the Performance Assurance to be returned to Seller and the security interest in, and general first lien upon, such substituted Performance Assurance granted pursuant hereto in favor of Buyer shall have been perfected as required by applicable law and shall constitute a first priority perfected security interest therein and general first lien thereon, and (ii) after giving effect to such substitution, the substitute Performance Assurance shall equal the amount of Performance Assurance being replaced. Each substitution of Performance Assurance shall constitute a representation and warranty by Seller that the substituted Performance Assurance shall be subject to and governed by the terms and conditions of this Article 5, including without limitation the security interest in, general first lien on and right of offset against, such substituted Performance Assurance granted pursuant hereto in favor of Buyer pursuant to this Article 5.
- (c) The Transfer of any Performance Assurance by Buyer in accordance with this Section 5.3 shall be deemed a release by Buyer of its security interest, general first lien and right of offset granted pursuant to this Article 5 hereof only with respect to such returned Performance Assurance. In connection with each Transfer of any Performance Assurance pursuant to this Article 5, Seller will, upon request of Buyer, execute a receipt showing the Performance Assurance Transferred to it.

5.4. Administration of Performance Assurance

- (a) Cash. Performance Assurance provided in the form of Cash to Buyer shall be subject to the following provisions:
 - (i) Notwithstanding the provisions of applicable law, if no Event of Default has occurred and is continuing with respect to Buyer and no Early Termination Date has occurred or been designated as a result of an Event of Default with respect to Buyer for which there exist any unsatisfied payment obligations, then Buyer shall have the right to sell, pledge, rehypothecate, assign, invest, use, commingle or otherwise use in its business any Cash that it holds as Performance Assurance hereunder, free from any claim or right of any nature whatsoever of Seller, including any equity or right of redemption by Seller.

- (ii) So long as no Event of Default or Potential Event of Default with respect to Seller has occurred and is continuing, and no Early Termination Date has occurred or been designated as the result of an Event of Default with respect to Seller, and no amounts are owing and unpaid from Seller to Buyer hereunder, and to the extent that an obligation to Transfer Performance Assurance would not be created or increased by the Transfer, in the event that Buyer is holding Cash, Buyer will Transfer (or caused to be Transferred) to Seller, in lieu of any interest or other amounts paid or deemed to have been paid with respect to such Cash (all of which may be retained by Buyer), the Interest Amount when Buyer returns the Cash to Seller following the termination or expiration of this Agreement, as applicable and in conformity with Section 9.6. On or after the occurrence of a Potential Event of Default or an Event of Default with respect to Seller or an Early Termination Date as a result of an Event of Default with respect to Seller, Buyer shall retain any such Interest Amount as additional Performance Assurance hereunder until the obligations of Seller under the Agreement have been satisfied in the case of an Early Termination Date or for so long as such Event of Default is continuing in the case of an Event of Default.
- (b) Letters of Credit. Performance Assurance provided in the form of a Letter of Credit shall be subject to the following provisions:
 - (i) Each Letter of Credit shall be maintained for the benefit of Buyer. Seller shall (A) renew or cause the renewal of each outstanding Letter of Credit on a timely basis as provided in the relevant Letter of Credit, (B) if the bank or financial institution that issued an outstanding Letter of Credit has indicated its intent not to renew such Letter of Credit, provide either a substitute Letter of Credit or Cash, in each case at least thirty (30) calendar days prior to the expiration of the outstanding Letter of Credit, and (C) if a bank or financial institution issuing a Letter of Credit shall fail to honor Buyer's properly documented request to draw on an outstanding Letter of Credit, provide for the benefit of Buyer either a substitute Letter of Credit that is issued by a bank or financial institution acceptable to Buyer or Cash, in each case within one (1) Business Day after such refusal.
 - (ii) As one method of providing Performance Assurance, Seller may increase the amount of an outstanding Letter of Credit or establish one or more additional Letters of Credit.
 - (iii) Upon the occurrence of a Letter of Credit Default, Seller agrees to Transfer to Buyer either a substitute Letter of Credit or Cash, in each case on or before the first (1st) Business Day after the occurrence thereof (or the fifth (5th) Business Day after the occurrence thereof if only clause (i) under the definition of Letter of Credit Default applies).
 - (iv) Upon or at any time after the occurrence and continuation of an Event of Default or Letter of Credit Default with respect to Seller, or if an Early Termination Date has occurred or been designated as a result of an Event of Default with respect to Seller for which there exist any unsatisfied payment obligations, then Buyer may draw on the entire, undrawn portion of any outstanding Letter of Credit upon submission to the bank or financial institution issuing such Letter of Credit of one or more certificates specifying that such Event of Default, Letter of Credit

Default or Early Termination Date has occurred and is continuing. Cash proceeds received from drawing upon the Letter of Credit shall be deemed Performance Assurance as security for Seller's obligations to Buyer and Buyer shall have the rights and remedies set forth in Section 5.5 with respect to such Cash proceeds. Notwithstanding Buyer's receipt of Cash proceeds of a drawing under the Letter of Credit, Seller shall remain liable (A) for any failure to Transfer sufficient Performance Assurance and (B) for any amounts owing to Buyer and remaining unpaid after the application of the amounts so drawn by Buyer.

- (v) In all cases, the costs and expenses of establishing, renewing, substituting, canceling, and increasing the amount of a Letter of Credit shall be borne by Seller.
- (c) Care of Performance Assurance. Except as otherwise provided in Section 5.4(a)(i) and beyond the exercise of reasonable care in the custody thereof, Buyer shall have no duty as to any Performance Assurance in its possession or control or any income thereon or as to the preservation of rights against prior parties or any other rights pertaining thereto. Buyer shall be deemed to have exercised reasonable care in the custody and preservation of the Performance Assurance in its possession if the Performance Assurance is accorded treatment substantially equal to that which it accords its own property, and shall not be liable or responsible for any loss or damage to any of the Performance Assurance, or for any diminution in the value thereof, except to the extent such loss or damage is the result of Buyer's willful misconduct or gross negligence. Buyer shall at all times retain possession or control of any Performance Assurance Transferred to it.

5.5. Exercise of Rights against Performance Assurance

- (a) If an Event of Default with respect to Seller has occurred and is continuing or an Early Termination Date has occurred or been designated as a result of an Event of Default with respect to Seller, Buyer may exercise any one or more of the rights and remedies provided under this Agreement, or as otherwise available under Applicable Law. Without limiting the foregoing, if at any time an Event of Default with respect to Seller has occurred and is continuing, or an Early Termination Date occurs or is deemed to occur as a result of an Event of Default with respect to Seller, then Buyer may, in its sole discretion, exercise any one or more of the following rights and remedies:
 - (i) All rights and remedies available to a Buyer under the Uniform Commercial Code and any other applicable jurisdiction and other Applicable Laws with respect to the Performance Assurance held by or for the benefit of Buyer;
 - (ii) The right to set off any Performance Assurance held by or for the benefit of Buyer against and in satisfaction of any amount payable by Seller in respect of any of its obligations; and
 - (iii) The right to draw on any outstanding Letter of Credit issued for its benefit.
- (b) Buyer shall be under no obligation to prioritize the order with respect to which it exercises any one or more rights and remedies available hereunder. Seller shall in all events remain liable to Buyer for any amount payable by Seller in respect of any of its obligations remaining unpaid after any such liquidation, application and set off.

5.6. Financial Information

If requested by a Party, the other Party shall deliver, if available, (a) within one hundred twenty (120) calendar days following the end of each fiscal year, a copy of the annual report containing audited consolidated financial statements (income statement, balance sheet, statement of cash flows and statement of retained earnings and all accompanying notes) for such fiscal year setting forth in each case in comparative form the figures for the previous year for the Party, as the case may be, and (b) within sixty (60) calendar days after the end of each of its first three fiscal quarters of each fiscal year, a copy of a quarterly report containing unaudited consolidated financial statements for such fiscal quarter and the portion of the fiscal year through the end of such quarter, setting forth in each case in comparative form the figures for the previous year, and if the Party files reports with the Securities and Exchange Commission, certified in accordance with all applicable laws and regulations, including without limitation all applicable Securities and Exchange Commission rules and regulations. If the Party does not file reports with the Securities and Exchange Commission, the reports must be certified by a Chief Financial Officer, Treasurer or any Assistant Treasurer as being fairly stated in all material respects (subject to normal year end audit adjustments); provided, for the purposes of this Section 5.6, if a Party's financial statements are publicly available electronically on the Securities and Exchange Commission's website, then this requirement shall be deemed satisfied. In all cases the statements shall be for the most recent accounting period and shall be prepared in accordance with generally accepted accounting principles; provided, should any such statements not be available on a timely basis due to a delay in preparation or certification, such delay shall not be an Event of Default so long as the relevant entity diligently pursues the preparation, certification and delivery of the statements.

5.7. Access to Financial Information

{This provision does not apply if the Delivery Period is for two years or less.}

The Parties agree that Securities and Exchange Commission rules for reporting power purchase agreements may require Buyer to collect and possibly consolidate financial information. If such reporting is required for this Agreement, Buyer is obligated to obtain information from Seller to determine whether or not consolidation is required. If Buyer determines that consolidation is required, Buyer shall require the following during every calendar quarter for the Term of the Agreement:

- (a) Complete financial statements and notes to financial statements, which may include accruals and prior month estimates with true-ups to actual activity;
- (b) Financial schedules underlying the financial statements, all within fifteen (15) days of the end of each quarter; and
- (c) Access to records and personnel, so that Buyer's independent auditor can conduct financial audits (in accordance with generally accepted auditing standards) and internal control audits (in accordance with Section 404 of the Sarbanes-Oxley Act of 2002).

Any information provided to Buyer pursuant to this Section 5.7 shall be treated confidentially and only disclosed on an aggregate basis with other similar entities for which Buyer has contracts. The information will only be used for financial statement purposes and shall not be otherwise shared with internal or external parties.

5.8. Uniform Commercial Code Waiver

This Agreement sets forth the entirety of the agreement of the Parties regarding credit, collateral, financial assurances and adequate assurances. Except as expressly set forth in this Agreement, including, those provisions set forth in Article 5 and Article 9, neither Party:

- (a) has or will have any obligation to post margin, provide Letters of Credit, pay deposits, make any other prepayments or provide any other financial assurances, in any form whatsoever, or
- (b) will have reasonable grounds for insecurity with respect to the creditworthiness of a Party that is complying with the relevant provisions of Article 5 and Article 9; and all implied rights relating to financial assurances arising from Section 2-609 of the Uniform Commercial Code or case law applying similar doctrines, are hereby waived.

ARTICLE 6. SPECIAL TERMS AND CONDITIONS

6.1. Limitation of Liability

Buyer has no obligations to any person or entity that is, or may participate as, a DRAM Resource Customer, DRP (if Seller is not a DRP), or Seller's SC and Seller shall indemnify Buyer against any claim made by any such DRAM Customer, the DRP (if Seller is not a DRP), or Seller's SC with respect to its participation in or with the PDR or DRAM Resource, as applicable.

6.2. Buyer Provision of Information

Buyer shall provide to Seller, to the extent available and permitted by Applicable Law, including Rule 24, provide specific information consistent with the Customer Information Service Request Form for Demand Response Providers (CISR-DRP) adopted by the CPUC in D.13-12-029 and Resolution E-4630 including, but not limited to, usage, and/or meter data of a Customer, if Seller provides to Buyer written authorization from such Customer to release such information. Such written authorization must be provided in a form reasonably acceptable to Buyer. Buyer shall be liable for penalties or charges incurred by Seller from either the CAISO or the CPUC resulting solely from Buyer's failure to provide timely, accurate data to Seller in accordance with this Section 6.2.

6.3. Changes in Applicable Laws

- (a) If a change in Applicable Laws renders this Agreement or any material terms herein incapable of being performed or administered, then either Party, on Notice, may request the other Party to enter into good faith negotiations to make the minimum changes to this Agreement necessary to make this Agreement capable of being performed or administered, while attempting to preserve to the maximum extent possible the benefits, burdens and obligations set forth in this Agreement as of the Execution Date. The Parties acknowledge that such changes may require the approval of the CPUC before becoming effective.
- (b) If the Parties have been unable to reach agreement within thirty (30) calendar days after receipt of such Notice, then either Party may terminate this Agreement by providing Notice. A Party's exercise of its rights under this Section 6.3 will not be deemed to be a failure of Seller to sell or deliver the Product or a failure of Buyer to purchase or receive

the Product, and will not be or cause an Event of Default by either Party. Neither Party shall have any further obligation or liability to the other and no Settlement Amount with respect to this Agreement will be due or owing by either Party upon termination of this Agreement due solely to a Party's exercise of its right pursuant to this Section 6.3.

6.4. DBE Reporting

No later than twenty (20) calendar days after each semi-annual period ending on June 30th or December 31st during the Term, Seller shall provide to Buyer a report listing all Diverse Business Enterprises that supplied goods or services to Seller during such period, including any certifications or other documentation of such Diverse Business Enterprises' status as such and the amount paid to each Diverse Business Enterprise during such period.

- (a) Buyer has the right to disclose to the CPUC all such information provided by Seller pursuant to this Section 6.4.
- (b) Seller shall make reasonable efforts to accommodate requests by the CPUC (or by Buyer in response to a request by the CPUC) to audit Seller in order to verify data provided by Seller pursuant to this Section 6.4.

6.5. Governmental Charges

Seller shall pay on request and indemnify Buyer against any taxes (including without limitation, any applicable transfer taxes and stamp, registration or other documentary taxes), assessments, or charges that may become payable by reason of the security interests, general first lien and right of offset granted under this Agreement or the execution, delivery, performance or enforcement of this Agreement, as well as any penalties with respect thereto.

6.6. Customers in Buyer Automated Demand Response Program

Seller agrees to and acknowledges the following with respect to Buyer's non-Residential Customers which are included in Seller's DRAM Resource and have received ADR incentives or rebates to install demand response capable control technologies:

- (a) Customers in Seller's DRAM Resource are eligible for ADR incentives or rebates, subject to the requirements of this Agreement, Commission requirements, and Applicable Laws. The Customer remains responsible for fulfilling its obligations under Buyer's ADR program rules during the time period such ADR Customer is in Seller's DRAM Resource.
- (b) Seller shall be responsible for (i) notification to ADR Customers in its DRAM Resource of each Bid awarded by the CAISO ("Award") for a PDR, and (ii) operation of the ADR Customers' ADR control technology in response to an Award. During the time period that an ADR Customer is enrolled in a DRAM Resource, Buyer (or its agent) will not send notifications to such ADR Customer of Awards and will not operate ADR Customers' ADR control technology.
- (c) If Seller or its DRP enrolls a Customer who has received ADR incentives or rebates in Seller's DRAM Resource, Seller shall provide Buyer (or its agent) with Notice within five (5) Business Days of such enrollment of the ADR Customer's enrollment along with the ADR Customer's name, service account address, SAID, location, the ADR

agreement, and confirmation that the ADR Customer has unenrolled from all or any of Buyer's event-based demand response programs (other than ADR) prior to enrolling in Seller's DRAM Resource. Seller shall provide Buyer (or its agent) with Notice within fifteen (15) calendar days after such Customer leaves Seller's DRAM Resource.

- (d) Customers who have received ADR incentives within the past year who enroll in a DRAM Resource will be required to demonstrate performance through the DRAM Resource to qualify for additional ADR incentive payments as indicated in the statewide ADR Guidelines.
- (e) Buyer (or its agent) may communicate (i) with Seller's Customers who have received ADR incentives or rebates about the requirements for the Customer to participate in a demand response program, and (ii) with Seller's Customers with respect to anything involving their ADR incentive or rebate eligibility.
- (f) Seller shall provide to Buyer (or its agent) all information necessary for Buyer to administer the Customers' ADR incentives or rebates, including, but not limited to: (i) the information described in Section 6.6(c), (ii) the days in each Showing Month of Dispatch of the applicable PDR in the DRAM Resource, (iii) all hours in such Showing Month, corresponding to the days in subsection (ii), when Seller dispatched or called on the ADR Customer to respond to an Award, and (iv) information on ADR Customers that Seller did not dispatch or call on to respond to an Award for such Showing Month. The Customer's participation in the Seller's DRAM Resource as described in this Section 6.6(f) will be used in conjunction with the ADR Customer's participation in Buyer's demand response programs, to calculate the Customer's actual performance and subsequent incentive payments.
- (g) If Seller does not provide all the information Buyer needs to administer the ADR incentives for the Customer, the ADR Customer will be in non-compliance with the requirements of the ADR program.
- (h) Following the termination or expiration of this Agreement, Buyer (or its agent) may notify the Customers in Seller's DRAM Resource that have received ADR incentives or rebates of their commitment to participate in a demand response program for a total of three years.

ARTICLE 7. REPRESENTATIONS, WARRANTIES AND COVENANTS

7.1. Representations and Warranties of Both Parties

On the Execution Date, each Party represents and warrants to the other Party that:

- (a) It is duly organized, validly existing and in good standing under the laws of the jurisdiction of its formation;
- (b) Except for CPUC Approval in the case of Buyer, it has or will timely acquire all regulatory authorizations necessary for it to legally perform its obligations under this Agreement;
- (c) The execution, delivery and performance of this Agreement are within its powers, have been duly authorized by all necessary action and do not violate any of the terms and

conditions in its governing documents, any contracts to which it is a party or any law, rule, regulation, order or the like applicable to it;

- (d) This Agreement constitutes its legally valid and binding obligation, enforceable against it in accordance with its terms;
- (e) It is not Bankrupt and there are no proceedings pending or being contemplated by it or, to its knowledge, threatened against it which would result in it being or become Bankrupt; provided that, this Section 7.1(e) shall not apply with respect to Buyer until Buyer's exit from the Chapter 11 Cases has occurred;
- (f) There is not pending or, to its knowledge, threatened against it, any legal proceedings that could materially adversely affect its ability to perform its obligations under this Agreement; provided that, this Section 7.1(f) shall not apply with respect to Buyer until Buyer's exit from the Chapter 11 Cases has occurred;
- (g) It (i) is acting for its own account, (ii) has made its own independent decision to enter into this Agreement and as to whether this Agreement is appropriate or proper for it based upon its own judgment, (iii) is not relying upon the advice or recommendations of the other Party in so doing, and (iv) is capable of assessing the merits of and understanding, and understands and accepts, the terms, conditions, and risks of this Agreement; and
- (h) It has entered into this Agreement in connection with the conduct of its business and it has the capability or ability to make available or take delivery of, as applicable, the Product under this Agreement in accordance with the terms of this Agreement.

7.2. Additional Seller Representations, Warranties and Covenants

- (a) On the Execution Date, Seller represents and warrants to Buyer that Seller has not used, granted, pledged, assigned, or otherwise committed any of the Monthly Quantity to meet the RAR, Local RAR and/or Flexible RAR, as applicable, or confer Resource Adequacy Benefits upon, any entity other than Buyer during the Delivery Period.
- (b) Seller covenants that throughout the Delivery Period:
 - (i) Seller will deliver the Product to Buyer free and clear of all liens, security interests, claims and encumbrances or any interest therein or thereto by any person;
 - (ii) Seller has been authorized by each Customer, to act as an aggregator on behalf of such Customer to participate as a PDR in the DRAM Resource, if Seller is not also a Customer;
 - (iii) The DRP has been authorized by each Customer to act on behalf of such Customer to participate as a PDR for the DRAM Resource, if Seller is not the DRP; and
 - (iv) Seller will not use, grant, pledge, assign, or otherwise commit any Monthly Contracted Quantity to meet the RAR, Local RAR, and/or Flexible RAR, as

applicable, or confer Resource Adequacy Benefits of the Product upon, any entity other than Buyer during the Delivery Period;

- (v) During each month of the Delivery Period, if any participating Customers in the DRAM Resource have a Prohibited Resource, Seller shall ensure that such Prohibited Resource is not used to reduce load during a Dispatch by any PDR providing Product to Buyer during such month, as follows:
 - (A) For all Residential Customers, Seller shall include a provision in its contract forbidding the use of Prohibited Resources to reduce load during a Dispatch by any PDR providing Product to Buyer. Any Customer that does not accept the prohibition will not be eligible to participate in the Seller's DRAM Resource.
 - (B) Seller shall require from each of its non-Residential Customers an attestation form attesting to one of the following conditions:
 - (1) the Customer does not have a Prohibited Resource on site;
 - (2) the Customer has a Prohibited Resource on site and will not use the resource to reduce load during a Dispatch by any PDR providing Product to Buyer; or,
 - (3) the Customer has a Prohibited Resource on site and may have to use the resource during Demand Response events for operational, health or safety reasons. The total nameplate capacity in kW of the Customer's resource(s) will be used as the Default Adjustment Value (DAV) to adjust the Demand Response incentives / charge for the Customer's account.

For condition 1 above, the Customer's attestation must include the service account number. For conditions 2 and 3 above, each attestation must provide the service account number, the number of unit(s) of Prohibited Resources on site, and the nameplate capacity of the Prohibited Resource (or, if the Customer has multiple Prohibited Resources, the sum of the nameplate capacity values from all Prohibited Resources on site) (the "Default Adjustment Value"). For condition (3), this Default Adjustment Value will be subtracted from the Potential Load Reduction or Nominated Capacity. Customers must agree to a default adjustment in which the amount of Product such Customer can provide is reduced by the Default Adjustment Value, regardless of whether the Prohibited Resource was actually used. Customers with multiple service accounts enrolled through Seller may submit one attestation form per attestation scenario.

- (C) Seller shall collect and store all such Customer attestations and make them available upon request, to a Verification Administrator or the CPUC. Seller shall also collect and store supporting documentation, such as nameplate capacities for each resource under each attestation scenario, and make them available upon request to Buyer, the Verification Administrator or the CPUC.

- (D) For non-Residential Customers, the attestation shall occur at the time of enrollment and may be provided with a wet signature, a click, or an electronic signature. Any non-Residential Customer that does not complete this component of the enrollment process will not be eligible to participate in Seller's DRAM Resource. Consistent with CPUC Resolution E-4906, the Seller's contractual agreement is contingent upon compliance with both the prohibition and the submission of the Customers' attestations, which are subject to verification.
- (E) Seller shall include provisions in its contracts that Customers are subject to random annual audits (1) requiring compliance with verification requests and facility access for site visits as deemed necessary by the Verification Administrator; (2) requiring the Customer to provide the Verification Administrator with written operating manifest(s), date and time stamped photo(s) of the Prohibited Resource unit(s), load curtailment plan(s), single line diagram(s) permit copy(ies), or other information or documentation about their onsite Prohibited Resources; and (3) allowing the Buyer or its contractor(s) to install monitoring equipment at the Sites for the purposes of verification of attestations.
- (F) Seller shall include additional and separate provisions near the beginning of its contracts with Customers explaining and implementing these restrictions specifying that Customer compliance will be subject to verification, indicating the consequences for noncompliance with the provision. All contracts with non-Residential Customers shall indicate that the non-compliance consequences will be as set forth in this section. If the instance of non-compliance involves clerical or administrative errors, such as an inaccurate listing of a Customer name or the nameplate value of a Prohibited Resource in an attestation, or a failure to include a Customer's Prohibited Resource on an attestation, provided in all cases that such Prohibited Resource is not used in violation of the terms of this Agreement (collectively, "Type One Non-Compliance"), Seller shall specify that Customers will have sixty (60) calendar days from receipt of notice to cure such Type-One Non-Compliance. If the instance of non-compliance involves either (1) the Customer does not attest to the use of any Prohibited Resource but is using a Prohibited Resource to reduce load during a demand response event; or (2), a Customer submits an invalid nameplate capacity value for the Prohibited Resource(s) that is lower than the actual capacity value on the nameplate (collectively "Type Two Non-Compliance"), then Customer will be removed from Seller's DRAM Resource as follows. If there is an instance of (x) an uncured Type One Non-Compliance, or (y) a Type Two Non-Compliance, the consequences will be removal from Seller's DRAM Resource and ineligibility to enroll in any DRAM Seller's Resource or Buyer's demand response program subject to the prohibited resource requirement in D.16-09-056 for twelve calendar months from the removal date (for a single instance of noncompliance), or three years from the removal date (for two or more instances of noncompliance).
- (G) Seller shall provide such documentation as may be reasonably necessary for Buyer to verify the accuracy of the attestations referenced in

subsections B(1)–(3) above and Seller’s compliance with and enforcement of this Section 7.2(b)(v). For all non-Residential Customers, (1) Sellers will provide the Default Adjustment Values (DAVs) monthly (with Demonstrated Capacity information); and, (2) Sellers will ensure that CAISO wholesale market bids reflect portfolio amounts prior to de-rating. Seller shall comply with any Prohibited Resource audit verification plan that is developed in accordance with D. 16-09-056 and approved by the CPUC.

- (H) On an annual basis, Seller shall provide to Buyer the language on the prohibition included in its respective Residential Customer contracts. Seller will develop metrics, targets and record keeping systems to assess the effectiveness of its Customer outreach and notification efforts required under this Section 7.2(b)(v), and will provide such materials to the Buyer, the CPUC, and the Verification Administrator upon the request of Buyer or the CPUC.
 - (I) Seller shall include provisions in its contracts with non-Residential Customers permitting updates to their attestations to (1) add, remove or modify an on-site Prohibited Resource; (2) change the status or use of a Prohibited Resource to reduce load during any Dispatch; or (3) change the Default Adjustment Value, but only if, in each case, the change is supported by documentation that confirms the operational change and can be verified by a Verification Administrator.
 - (J) Verification methods for Customers under the condition noted in Section 7.2(b)(v)(I)(3) above shall be based on documentation of nameplate capacity, instead of load curtailment plans..
 - (K) If further documentation in the form of load curtailment plans are required, Seller shall comply with the Verification Administrator’s requests for supporting materials.
 - (L) The Buyer has been directed by the CPUC to require a standardized non-disclosure agreement (NDA) that the Verification Administrator executes with the Buyer. This NDA pertains to all sellers and their customers from whom they collect market-sensitive, proprietary data. Verification information obtained from sellers and their customers is only to be submitted to and collected by the Verification Administrator consistent with CPUC Resolution E-4906. Under the terms of this NDA, third party customers’ market-sensitive, proprietary information shall not to be shared with the Buyer, will be kept under seal, and shall be made available to the Commission upon request. Per Ordering Paragraph 14 of CPUC Resolution E-4906, all aggregators must store Customer attestations and make them available to the CPUC upon request. The Seller shall store non-Residential Customer attestations and make them available to the Buyer or Commission upon request.
- (vi) If any respective PDR is a Joint Resource, Seller shall ensure that: (A) the use of the Joint Resource does not result in Buyer making payment in respect of Demonstrated Capacity for a type of Product in excess of the total capacity of the

Joint Resource, whether to Seller or any other party, regardless of whether payment is made under this Agreement, another agreement in the DRAM, any other demand resource agreement or program, or any combination thereof; (B) the use of the Joint Resource does not result in Buyer making payment more than once in respect of capacity relating to a particular Customer registered in the Joint Resource, regardless of whether payment is made under this Agreement, another agreement in the DRAM, any other demand resource agreement or program, or any combination thereof; and (C) Seller has the right to access and provide to Buyer the records and data regarding any DRAM Resource Customer that is not designated by Seller under Section 1.6(g) as part of the amount to be used to show Demonstrated Capacity for a type of Product under this Agreement to permit Buyer to audit such Joint Resource under Section 1.6(j) to the same extent Buyer may audit PDRs that are not Joint Resources.

ARTICLE 8. NOTICES

8.1. Notices

Notices, requests, statements or payments from one Party to the other Party shall be made to the addresses and persons specified in Section 8.2. All Notices, requests, statements or payments from one Party to the other Party shall be made in writing and may be delivered by hand delivery, first class United States mail, overnight courier service, e-mail or facsimile. Notice from one Party to the other Party by e-mail or facsimile (where confirmation of successful transmission is received) shall be deemed to have been received on the day on which it was transmitted (unless transmitted after 5:00 p.m. at the place of receipt or on a day that is not a Business Day, in which case it shall be deemed received on the next Business Day). Notice from one Party to the other Party by hand delivery or overnight delivery shall be deemed to have been received when delivered. A Party may change its contact information by providing Notice of the same in accordance herewith.

8.2. Contact Information

For Buyer:

Billing Representative

[Name]

Phone:

Facsimile:

Email:

Contract Representative

[Name]

Phone:

Facsimile:

Email:

Supply Plan Contact

[Name]

Phone:

Facsimile:

Email:

Settlements

[Name]

Phone:

Facsimile:

Email:

Other Buyer Contact Information

Wire Transfer

BNK:

ABA:

ACCT:

Credit and Collections

Attn: Credit and Emerging Risk

Phone: (415) 972-5188

Facsimile: (415) 973-7301

Email: PGERiskCredit@pge.com

Notices of Event of Default or Potential Event of Default to:

[Name]

Phone:

Facsimile:

Email:

For Seller:

Billing Representative

[Name]

Phone:

Facsimile:

Email:

Contract Representative

[Name]

Phone:

Facsimile:

Email:

Supply Plan Contact

[Name]

Phone:

Facsimile:

Email:

Other Seller Contact Information

ACH

BNK:

ABA:

ACCT:

Credit and Collections

Attn:

Phone:

Facsimile:

Email:

Notices of Event of Default or Potential Event of Default to:

[Name]

Phone:

Facsimile:

Email:

The Parties acknowledge and agree that those persons set forth in this Section 8.2 are designated by each Party as their respective authorized representatives to act on their behalf for the purposes described therein.

ARTICLE 9. EVENTS OF DEFAULT; TERMINATION

9.1. Events of Default

An “Event of Default” shall mean, with respect to a Party (“Defaulting Party”), the occurrence of any of the following:

- (a) With respect to either Party:
 - (i) The failure to make, when due, any payment required to be made to the other Party pursuant to this Agreement, if such failure is not remedied within three (3) Business Days after written Notice of such failure is given by the Non-Defaulting Party;
 - (ii) Any representation or warranty made by such Party herein is false or misleading in any material respect when made or when deemed made or repeated if the representation or warranty is continuing in nature;
 - (iii) The failure to perform any material covenant, obligation, term or condition of this Agreement (except to the extent constituting a separate Event of Default), where such breach is not remedied within five (5) Business Days of Notice of such breach by the Non-Defaulting Party.
 - (iv) Such Party becomes Bankrupt; provided that, this Section 9.1(a)(iv) shall not apply with respect to Buyer until Buyer’s exit from the Chapter 11 Cases has occurred; or
 - (v) A Merger Event occurs with respect to such Party.
- (b) With respect to Seller:
 - (i) The failure of Seller to satisfy the collateral requirements set forth in Article 5;
 - (ii) During the Term, Seller makes any material misrepresentation or omission in any report required to be made or furnished by Seller, the Seller’s DRP or the Seller’s SC pursuant to this Agreement;
 - (iii) During the Delivery Period, Seller sells, assigns, or otherwise transfers, or commits to sell, assign, or otherwise transfer, the Product, or any portion thereof, to any party other than Buyer without Buyer’s written consent; or
 - (iv) During the Term, the occurrence and continuation of a default, event of default or other similar condition or event (however described) in respect of Seller under one or more agreements or instruments relating to indebtedness for borrowed money (whether present or future, contingent or otherwise), which results in such indebtedness for borrowed money (whether present or future, contingent or otherwise) becoming, or becoming capable at such time of being declared, immediately due and payable under such agreements or instruments, before it would otherwise have been due and payable, or a default by Seller in making one or more payments on the due date thereof in an aggregate amount of not less than

[To be determined by Buyer] under such agreements or instruments (after giving effect to any applicable notice requirement or grace period).

- (v) During the Term, Seller fails to comply with the requirements of Section 7.2(b)(v), where such breach is not remedied within thirty (30) calendar days of Notice of such breach by Buyer.
- (vi) The aggregate Demonstrated Capacity for the DRAM Resource is less than fifty percent (50%) of the aggregate Qualifying Capacity for the DRAM Resource in any two (2) sequential Showing Months for which Demonstrated Capacity was calculated with reference to the results of a DC Dispatch pursuant to Section 1.6(a)(i) or a DC Test pursuant to Section 1.6(a)(ii) (excluding any intervening months with invoices based on MOO bids pursuant to Section 1.6(a)(iii)).

9.2. Early Termination

If an Event of Default shall have occurred, the Party taking the default (the “Non-Defaulting Party”) has the right:

- (a) To designate by Notice, which will be effective five (5) Business Days after the Notice is given, a day, no later than twenty (20) calendar days after the Notice is effective, for the early termination of this Agreement (an “Early Termination Date”);
- (b) Withhold any payments due to the Defaulting Party under this Agreement;
- (c) Suspend performance of this Agreement, but excluding Seller’s obligation to post and maintain Performance Assurance in accordance with Article 5; and
- (d) To pursue all remedies available at law or in equity against the Defaulting Party (including monetary damages), except to the extent that such remedies are limited by the terms of this Agreement.

9.3. Termination Payment

- (a) As soon as practicable after an Early Termination Date is declared, the Non-Defaulting Party shall provide Notice to the Defaulting Party of the amount of the Termination Payment. The Notice must include a written statement setting forth, in reasonable detail, the calculation of such Termination Payment including the Settlement Amount, together with appropriate supporting documentation.
- (b) If the Termination Payment is positive, the Defaulting Party shall pay such amount to the Non-Defaulting Party within two (2) Business Days after the Notice is provided. If the Termination Payment is negative (i.e., the Non-Defaulting Party owes the Defaulting Party more than the Defaulting Party owes the Non-Defaulting Party), then the Settlement Amount shall be zero dollars (\$0), and the Non-Defaulting Party shall only pay to the Defaulting Party, within thirty (30) calendar days after the Notice is provided, any amounts owed by the Non-Defaulting Party to the Defaulting Party determined as of the Early Termination Date.
- (c) If a Party disputes the other Party’s calculation of the Termination Payment, in whole or in part, the disputing Party shall, within two (2) Business Days of receipt of the Party’s

calculation of the Termination Payment, provide to the other Party a detailed written explanation of the basis for such dispute. Any disputes as to the calculation of the Termination Payment which the Parties are unable to resolve may be submitted to dispute resolution as provided in Article 10.

9.4. Reserved

9.5. Suspension of Performance

Notwithstanding any other provision of this Agreement, if (a) an Event of Default or (b) a Potential Event of Default shall have occurred and be continuing, the Non-Defaulting Party, upon Notice to the Defaulting Party, shall have the right (i) to suspend performance under this Agreement and (ii) to the extent an Event of Default shall have occurred and be continuing to exercise any remedy available at law or in equity.

9.6. Rights and Obligations Surviving Termination or Expiration

The rights and obligations that are intended to survive a termination or expiration of this Agreement are all of those rights and obligations that this Agreement expressly provides survive any such termination or expiration and those that arise from a Party's covenants, agreements, representations, and warranties applicable to, or to be performed, at or during any time before or as a result of the termination or expiration of this Agreement, including:

- (a) A Party's obligation to provide information, including but not limited to Sections 3.3, 5.7, 6.2 and 6.4.
- (b) A Party's obligations with respect to invoices and payments pursuant to this Agreement;
- (c) The obligation of Seller to maintain Performance Assurance as set forth in Section 5.1;
- (d) The obligation of Buyer to return any Performance Assurance under Section 5.3;
- (e) The right to pursue remedies as set forth in Sections 9.2(d) and Article 10;
- (f) The obligations with respect to a Termination Payment as set forth in Section 9.3;
- (g) The dispute resolution provisions of Article 10;
- (h) The indemnity obligations expressly set forth in this Agreement;
- (i) The limitation of liabilities as set forth in Sections 3.5, 6.1 and Article 12; and
- (j) The obligation of confidentiality as set forth in Article 13.

ARTICLE 10. DISPUTE RESOLUTION

10.1. Dispute Resolution

Mindful of the high costs of litigation, not only in dollars but time and energy as well, the Parties intend to and do hereby establish a final and binding out-of-court dispute resolution procedure to be followed in the event any controversy should arise out of or concerning the performance of the Agreement. Accordingly, it is agreed as follows:

(a) Negotiation

- (i) Except for disputes arising with respect to a Termination Payment, the Parties will attempt in good faith to resolve any controversy or claim arising out of or relating to this Agreement by prompt negotiations between each Party's Contract Representative, as identified in Section 8.2, or such other person designated in writing as a representative of the Party ("Manager"). Either Manager may request a meeting (in person or telephonically) to initiate negotiations to be held within ten (10) Business Days of the other Party's receipt of such request, at a mutually agreed time and place. If the matter is not resolved within fifteen (15) Business Days of their first meeting ("Initial Negotiation End Date"), the Managers shall refer the matter to the designated senior officers of their respective companies, who shall have authority to settle the dispute ("Executive(s)"). Within five (5) Business Days of the Initial Negotiation End Date ("Referral Date"), each Party shall provide one another written notice confirming the referral and identifying the name and title of the Executive who will represent the Party.
- (ii) Within five (5) Business Days of the Referral Date the Executives shall establish a mutually acceptable location and date, which date shall not be greater than thirty (30) calendar days from the Referral Date, to meet. After the initial meeting date, the Executives shall meet as often as they reasonably deem necessary to exchange the relevant information and to attempt to resolve the dispute.
- (iii) All communication and writing exchanged between the Parties in connection with these negotiations shall be confidential and shall not be used or referred to in any subsequent binding adjudicatory process between the Parties.
- (iv) If the matter is not resolved within forty-five (45) calendar days of the Referral Date, or if the Party receiving the written request to meet, pursuant to the first paragraph of this Section 10.1(a), refuses or will not meet within ten (10) Business Days, either Party may initiate mediation of the controversy or claim according to the terms of the following Section 10.3.
- (v) If a dispute exists with respect to the Termination Payment, and such dispute cannot be resolved by good faith negotiation of the Parties within ten (10) Business Days of the Non-Defaulting Party's receipt of the detailed basis for the explanation of the dispute then either Party may refer the matter directly to Arbitration, as set forth in Section 10.4 below.

(b) Mediation

If the dispute (other than a dispute regarding the Termination Payment) cannot be resolved by negotiation as set forth in Section 10(a) above, then either Party may initiate mediation, the first-step of a two-step dispute resolution process, which JAMS, Inc., or its successor entity, a judicial arbitration and mediation service ("JAMS"). As the first step, the Parties agree to mediate any controversy before a commercial mediator from the JAMS panel, pursuant to JAMS's then-applicable commercial mediation rules, in San Francisco, California. Either Party may initiate such a mediation by serving a written demand for mediation. The mediator shall not have the authority to require, and neither Party may be compelled to engage in, any form of discovery

prior to or in connection with the mediation. If within sixty (60) days after service of a written demand for mediation, or as extended by mutual agreement of the Parties, the mediation does not result in resolution of the dispute, then the Parties shall resolve such controversy through Arbitration by one retired judge or justice from the JAMS panel, which Arbitration shall take place in San Francisco, California, and which the arbitrator shall administer by and in accordance with JAMS's Commercial Arbitration Rules ("Arbitration"). If the Parties cannot mutually agree on the arbitrator who will adjudicate the dispute, then JAMS shall provide the Parties with an arbitrator pursuant to its then-applicable Commercial Arbitration Rules. The period commencing from the date of the written demand for mediation until the appointment of a mediator shall be included within the sixty (60) day mediation period. Any mediator(s) and arbitrator(s) shall have no affiliation with, financial or other interest in, or prior employment with either Party and shall be knowledgeable in the field of the dispute. Either Party may initiate Arbitration by filing with the JAMS a notice of intent to arbitrate within sixty (60) days of service of the written demand for mediation.

(c) Arbitration

- (i) At the request of a Party, the arbitrator shall have the discretion to order depositions of witnesses to the extent the arbitrator deems such discovery relevant and appropriate. Depositions shall be limited to a maximum of three (3) per Party and shall be held within thirty (30) days of the making of a request. Additional depositions may be scheduled only with the permission of the arbitrator, and for good cause shown. Each deposition shall be limited to a maximum of six (6) hours duration unless otherwise permitted by the arbitrator for good cause shown. All objections are reserved for the Arbitration hearing except for objections based on privilege and proprietary and confidential information. The arbitrator shall also have discretion to order the Parties to exchange relevant documents. The arbitrator shall also have discretion to order the Parties to answer interrogatories, upon good cause shown.
- (ii) The arbitrator, once chosen, shall consider any transaction tapes or any other evidence which the arbitrator deems necessary, as presented by each Party. In deciding the award, the provisions of this Agreement will be binding on the arbitrator. The arbitrator will deliver his or her decision in writing within 30 days after the conclusion of the Arbitration hearing. The arbitrator shall specify the basis for his or her decision, the basis for the damages award and a breakdown of the damages awarded, and the basis of any other remedy. Except as provided in the Federal Arbitration Act, the decision of the arbitrator will be binding on and non-appealable by the Parties. Each Party agrees that any arbitration award against it may be enforced in any court of competent jurisdiction and that any Party may authorize any such court to enter judgment on the arbitrator's decision.
- (iii) The arbitrator shall have no authority to award punitive or exemplary damages or any other damages other than direct and actual damages.
- (iv) Any expenses incurred in connection with hiring the arbitrators and performing the Arbitration shall be shared and paid equally between the Parties. Each Party shall bear and pay its own expenses incurred by each in connection with the Arbitration, unless otherwise included in a solution chosen by the Arbitration panel. In the event either Party must file a court action to enforce an arbitration

award under this Article, the prevailing Party shall be entitled to recover its court costs and reasonable attorney fees.

- (v) In the event the Parties choose to litigate any matter hereunder, the Parties hereby waive the right to jury trial.
- (vi) Except as may be required by Applicable Law, the existence, contents or results of any Arbitration hereunder may not be disclosed by a Party or the arbitrator without the prior written consent of both Parties.

10.2. Provisional Relief

The Parties acknowledge and agree that irreparable damage would occur if certain provisions of this Agreement are not performed in accordance with the terms of this Agreement, that money damages would not be a sufficient remedy for any breach of these provisions of this Agreement, and that the Parties shall be entitled, without the requirement of posting a bond or other security, to seek a preliminary injunction, temporary restraining order, or other provisional relief as a remedy for a breach of Article 13 in any court of competent jurisdiction, notwithstanding the obligation to submit all other Disputes (including all claims for monetary damages under this Agreement) to arbitration pursuant to this Article 10. The Parties further acknowledge and agree that the results of the arbitration may be rendered ineffectual without the provisional relief.

Such a request for provisional relief does not waive a Party's right to seek other remedies for the breach of the provisions specified above in accordance with Article 10, notwithstanding any prohibition against claim-splitting or other similar doctrine. The other remedies that may be sought include specific performance and injunctive or other equitable relief, plus any other remedy specified in this Agreement for the breach of the provision, or if the Agreement does not specify a remedy for the breach, all other remedies available at law or equity to the Parties for the breach.

ARTICLE 11. INDEMNIFICATION

11.1. Seller's Indemnification Obligations

- (a) In addition to any other indemnification obligations Seller may have elsewhere in this Agreement, which are hereby incorporated in this Section 11.1, Seller releases, and shall indemnify, defend and hold harmless Buyer, and Buyer's directors, officers, employees, agents, assigns, and successors in interest, from and against any and all loss, liability, damage, claim, cost, charge, demand, penalty, fine or expense of any kind or nature (including any direct, damage, claim, cost, charge, demand, or expense, and attorneys' fees (including cost of in-house counsel) and other costs of litigation, arbitration or mediation, and in the case of third-party claims only, indirect or consequential loss or damage of such third-party), arising out of or in connection with:
 - (i) any breach made by Seller of its representations, warranties and covenants in Article 7 or any payment disputes resulting from the use of a Joint Resource;
 - (ii) Seller's failure to fulfill its obligations regarding Resource Adequacy Benefits as set forth in Article 3;

- (iii) any violation of Applicable Law or the CAISO Tariff arising out of or in connection with Seller's performance of, or failure to perform this Agreement;
- (iv) injury or death to persons, including Buyer employees, and physical damage to property, including Buyer property, where the damage arises out of, is related to, or is in connection with, Seller's obligations or performance under this Agreement.

This indemnity applies notwithstanding Buyer's active or passive negligence; provided, Buyer will not be indemnified for its loss, liability, damage, claim, cost, charge, demand or expense to the extent caused by its gross negligence or willful misconduct.

11.2. Indemnification Claims

All claims for indemnification by Buyer will be asserted and resolved as follows:

If a claim or demand for which Buyer may claim indemnity is asserted against or sought to be collected from Seller by a third party, Buyer shall as promptly as practicable give Notice to Seller; provided, failure to provide this Notice will relieve Seller only to the extent that the failure actually prejudices Seller.

- (a) Seller will have the right to control the defense and settlement of any claims in a manner not adverse to Buyer but cannot admit any liability or enter into any settlement without Buyer's approval.
- (b) Buyer may employ counsel at its own expense with respect to any claims or demands asserted or sought to be collected against it; provided, if counsel is employed due to a conflict of interest or because Seller does not assume control of the defense, Seller will bear the expense of this counsel.

ARTICLE 12. LIMITATION OF REMEDIES, LIABILITY, AND DAMAGES

EXCEPT AS SET FORTH HEREIN WITH RESPECT TO THE PRODUCT, THERE ARE NO WARRANTIES BY EITHER PARTY UNDER THIS AGREEMENT, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ANY AND ALL IMPLIED WARRANTIES ARE DISCLAIMED. THE PARTIES CONFIRM THAT THE EXPRESS REMEDIES AND MEASURES OF DAMAGES PROVIDED IN THIS AGREEMENT SATISFY THE ESSENTIAL PURPOSES HEREOF.

FOR BREACH OF ANY PROVISION FOR WHICH AN EXPRESS REMEDY OR MEASURE OF DAMAGES IS PROVIDED, SUCH EXPRESS REMEDY OR MEASURE OF DAMAGES WILL BE THE SOLE AND EXCLUSIVE REMEDY, THE OBLIGOR'S LIABILITY WILL BE LIMITED AS SET FORTH IN SUCH PROVISION AND ALL OTHER REMEDIES OR DAMAGES AT LAW OR IN EQUITY ARE WAIVED, UNLESS THE PROVISION IN QUESTION PROVIDES THAT THE EXPRESS REMEDIES ARE IN ADDITION TO OTHER REMEDIES THAT MAY BE AVAILABLE.

SUBJECT TO SECTION 9.3, IF NO REMEDY OR MEASURE OF DAMAGES IS EXPRESSLY PROVIDED HEREIN, THE OBLIGOR'S LIABILITY WILL BE LIMITED TO DIRECT ACTUAL DAMAGES ONLY, SUCH DIRECT ACTUAL DAMAGES WILL BE THE SOLE AND EXCLUSIVE REMEDY AND ALL OTHER REMEDIES OR DAMAGES AT LAW OR IN EQUITY ARE WAIVED.

UNLESS EXPRESSLY PROVIDED IN THIS AGREEMENT, INCLUDING WITHOUT LIMITATION THE PROVISIONS OF ARTICLE 11 (INDEMNIFICATION), NEITHER PARTY WILL BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, PUNITIVE, EXEMPLARY OR INDIRECT DAMAGES, LOST PROFITS OR OTHER BUSINESS INTERRUPTION DAMAGES, BY STATUTE, IN TORT OR CONTRACT, UNDER ANY INDEMNITY PROVISION OR OTHERWISE.

IT IS THE INTENT OF THE PARTIES THAT THE LIMITATIONS HEREIN IMPOSED ON REMEDIES AND THE MEASURE OF DAMAGES BE WITHOUT REGARD TO THE CAUSE OR CAUSES RELATED THERETO, INCLUDING THE NEGLIGENCE OF ANY PARTY, WHETHER SUCH NEGLIGENCE BE SOLE, JOINT OR CONCURRENT, OR ACTIVE OR PASSIVE.

TO THE EXTENT ANY DAMAGES REQUIRED TO BE PAID HEREUNDER ARE LIQUIDATED, THE PARTIES ACKNOWLEDGE THAT THE DAMAGES ARE DIFFICULT OR IMPOSSIBLE TO DETERMINE, OR OTHERWISE OBTAINING AN ADEQUATE REMEDY IS INCONVENIENT AND THE DAMAGES CALCULATED HEREUNDER CONSTITUTE A REASONABLE APPROXIMATION OF THE HARM OR LOSS.

NOTHING IN THIS ARTICLE PREVENTS, OR IS INTENDED TO PREVENT BUYER FROM PROCEEDING AGAINST OR EXERCISING ITS RIGHTS WITH RESPECT TO ANY PERFORMANCE ASSURANCE.

ARTICLE 13. CONFIDENTIALITY

13.1. Confidentiality Obligation

Neither Party shall disclose the terms or conditions of this Agreement to a third party (other than the Party's or the Party's Affiliates' officers, directors, employees, lenders, counsel, accountants, advisors, or Rating Agencies, who have a need to know such information and have agreed to keep such terms confidential) except (a) in order to comply with any Applicable Law, summons, subpoena, exchange rule, or accounting disclosure rule or standard, or to make any showing required by any applicable Governmental Body other than as set forth in Sections 13.1(e) and (f); (b) to the extent necessary for the enforcement of this Agreement; (c) as may be obtained from a non-confidential source that disclosed such information in a manner that did not violate its obligations to the non-disclosing Party in making such disclosure; (d) to the extent such information is or becomes generally available to the public prior to such disclosure by a Party; (e) when required to be released in connection with any regulatory proceeding (provided that the releasing Party makes reasonable efforts to obtain confidential treatment of the information being released); (f) with respect to Buyer, as may be furnished to its duly authorized Governmental Bodies, including without limitation the Commission and all divisions thereof, to Buyer's Procurement Review Group, a group of participants including members of the Commission and other governmental agencies and consumer groups established by the Commission in Commission decisions 02-08-071 and 03-06-071, and to Buyer's Cost Allocation Mechanism Group established by the CPUC in D.07-12-052, or (g) Seller may disclose the transfer of the Monthly Quantity under this Agreement to its SC in order for such SC to timely submit accurate Supply Plans. The existence of this Agreement is not subject to this confidentiality obligation; provided, neither Party shall make any public announcement relating to this Agreement unless required pursuant to subsection (a) or (e) of the foregoing sentence of this Article 13.

13.2. Obligation to Notify

In connection with discovery requests or orders pertaining to confidential information in connection with this Agreement as referenced in Section 13.1(a) (“Disclosure Order”) each Party shall, to the extent practicable, use reasonable efforts to:

- (a) Notify the other Party before disclosing the Confidential Information; and
- (b) Prevent or limit such disclosure.

After using such reasonable efforts, the Disclosing Party will not be:

- (c) Prohibited from complying with a Disclosure Order; or
- (d) Liable to the other Party for monetary or other damages incurred in connection with the disclosure of the Confidential Information.

13.3. Remedies; Survival

The Parties shall be entitled to all remedies available at law or in equity to enforce, or seek relief in connection with, this confidentiality obligation. With respect to information provided in connection with this Agreement, this obligation shall survive for a period of three (3) years following the expiration or termination of this Agreement.

ARTICLE 14. FORCE MAJEURE

To the extent either Party is prevented by Force Majeure from carrying out, in whole or part, its obligations under this Agreement and such Party (the “Claiming Party”) gives notice and details of the Force Majeure to the other Party as soon as practicable, then, unless the terms of the Product specify otherwise, the Claiming Party shall be excused from the performance of its obligations with respect to this Agreement (other than the obligation to make payments then due or becoming due with respect to performance prior to the Force Majeure). The Claiming Party shall remedy the Force Majeure with all reasonable dispatch. The non-Claiming Party shall not be required to perform or resume performance of its obligations to the Claiming Party corresponding to the obligations of the Claiming Party excused by Force Majeure.

ARTICLE 15. MISCELLANEOUS

15.1. General

- (a) This Agreement shall be considered for all purposes as prepared through the joint efforts of the Parties and shall not be construed against one Party or the other as a result of the preparation, substitution, submission or other event of negotiation, drafting or execution hereof.
- (b) The term “including,” when used in this Agreement, shall be by way of example only and shall not be considered in any way to be in limitation.
- (c) The headings used herein are for convenience and reference purposes only.
- (d) Each Party agrees that it will not assert, or defend itself, on the basis that any applicable tariff is inconsistent with this Agreement.

- (e) Words having well-known technical or industry meanings have these meanings unless otherwise specifically defined in this Agreement.
- (f) Whenever this Agreement specifically refers to any Applicable Law, tariff, government department or agency, or Rating Agency, the Parties hereby agree that the reference also refers to any successor to such law, tariff or organization.
- (g) Nothing in this Agreement relieves either Party from, or modifies, any obligation or requirement that exists in any Applicable Law, tariff, rule, or regulation.
- (h) The Parties acknowledge and agree that this Agreement and the transactions contemplated by this Agreement constitute a “forward contract” within the meaning of the Bankruptcy Code and that Buyer and Seller are each “forward contract merchants” within the meaning of the Bankruptcy Code.

15.2. Governing Law and Venue

THIS AGREEMENT AND THE RIGHTS AND DUTIES OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY AND CONSTRUED, ENFORCED AND PERFORMED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAWS. EACH PARTY WAIVES ITS RESPECTIVE RIGHT TO ANY JURY TRIAL WITH RESPECT TO ANY DISPUTE ARISING UNDER OR IN CONNECTION WITH THIS AGREEMENT.

15.3. Amendment

This Agreement can only be amended by a writing signed by both Parties.

15.4. Assignment

Neither Party shall assign this Agreement or its rights hereunder, as the case may be, without the prior written consent of the other Party, which consent may not be unreasonably withheld; provided, either Party may, without the consent of the other Party (and without relieving itself from liability hereunder), (a) transfer, sell, pledge, encumber or assign this Agreement or the accounts, revenues or proceeds hereof or thereof, as the case may be, in connection with any financing or other financial arrangements to any person or entity whose creditworthiness is equal to or higher than that of such Party, (b) transfer or assign this Agreement to an Affiliate of such Party which Affiliate’s creditworthiness is equal to or higher than that of such Party, or (c) transfer or assign this Agreement to any person or entity succeeding to all or substantially all of the assets of such Party and whose creditworthiness is equal to or higher than that of such Party; provided, in each such case, any such assignee shall agree in writing to be bound by the terms and conditions hereof and so long as the transferring Party delivers such tax and enforceability assurance as the non-transferring Party may reasonably request.

15.5. Successors and Assigns

This Agreement shall be binding upon and inure to the benefit of, the Parties and their respective successors and assigns. This Agreement is not intended to confer any rights or remedies upon any other persons other than the Parties.

15.6. Waiver

None of the provisions of this Agreement shall be considered waived by either Party unless the Party against whom such waiver is claimed gives the waiver in writing. The failure of either Party to insist in any one instance upon strict performance of any the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishments of such rights for the future but the same shall continue and remain in full force and effect. Waiver by either Party of any default of the other Party shall not be deemed a waiver of any other default.

15.7. No Agency

Except as otherwise provided explicitly herein, in performing their respective obligations under this Agreement, neither Party is acting, or is authorized to act, as the other Party's agent.

15.8. No Third-Party Beneficiaries

This Agreement shall not impart any rights enforceable by any third party (other than a permitted successor or assignee bound by this Agreement).

15.9. Entire Agreement

This Agreement, when fully executed, constitutes the entire agreement by and between the Parties as to the subject matter hereof, and supersedes all prior understandings, agreements or representations by or between the Parties, written or oral, to the extent they have related in any way to the subject matter hereof. Each Party represents that, in entering into this Agreement, it has not relied upon any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement.

15.10. Severability

If any term, section, provision or other part of this Agreement, or the application of any term, section, provision or other part of this Agreement, is held to be invalid, illegal or void by a court or regulatory agency of proper jurisdiction, all other terms, sections, provisions or other parts of this Agreement shall not be affected thereby but shall remain in force and effect unless a court or regulatory agency holds that the provisions are not separable from all other provisions of this Agreement.

15.11. Multiple Originals

This Agreement may be executed in multiple counterparts, each of which shall be deemed an original. Any signature page of this Agreement may be detached from any counterpart of this Agreement without impairing the legal effect of any of the signatures thereon, and may be attached to another counterpart of this Agreement identical in form hereto by having attached to it one or more signature pages.

15.12. Mobile Sierra

Notwithstanding any provision of this Agreement, neither Party shall seek, nor shall they support any third party seeking, to prospectively or retroactively revise the rates, terms or conditions of service of this Agreement through application or complaint to the FERC pursuant to the

provisions of the Federal Power Act, absent prior written agreement of the Parties. Further, absent the prior written agreement in writing by both Parties, the standard of review for changes to the rates, terms or conditions of service of this Agreement proposed by a Party, a non-Party, or the FERC acting *sua sponte* shall be the “public interest” standard of review set forth in *United States Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956) and *Federal Power Commission v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956).

15.13. Performance Under this Agreement

Each Party and its representatives shall maintain records and supporting documentation relating to this Agreement, and the performance of the Parties hereunder in accordance with, and for the applicable time periods required by, all Applicable Laws.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed as of the Execution Date.

PACIFIC GAS AND ELECTRIC COMPANY,
a California corporation

[SELLER]

Signature: _____

Name: _____

Title: _____

Date: _____

Signature: _____

Name: _____

Title: _____

Date: _____

EXHIBIT A

DEFINITIONS

As used in this Agreement, the following terms shall have the meanings set forth below:

“ADR Guidelines” means the guidelines for Buyer’s Automated Demand Response Program implemented pursuant to Decisions 12-04-045, 14-05-025, and 18-11-029, as modified or updated from time to time, including the updates to the guidelines that are submitted in the Tier Two advice letter process on September 1 of each year in compliance with Ordering Paragraph 8 of Decision 18-11-029.

“Affiliate” means with respect to a Party, any entity which directly or indirectly controls, is controlled by, or is under a common control with that Party. For purposes of this definition, “control” (including, with correlative meaning, the terms “controlling”, “controlled by” and “under common control with”), shall mean the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies through the ownership of voting securities, by agreement or otherwise.

“Agreement” has the meaning in the Preamble.

“Applicable Laws” means all constitutions, treaties, laws, ordinances, rules, regulations, interpretations, permits, judgments, decrees, injunctions, writs and orders of any Governmental Body that apply to either or both of the Parties, the DRP, the PDR or the terms of this Agreement.

“Audit Notice” has the meaning set forth in Section 1.6(j).

“Automated Demand Response” or “ADR” is Buyer’s demand response program offering Customers an incentive to install automated communication equipment and associated software that enhances their ability to reduce load during Buyer’s demand response program events. For purposes ADR, Seller’s participation in the CAISO Markets pursuant to this Agreement is a Buyer demand response program, pursuant to the September 24, 2015 disposition letter from Commission staff. The CPUC approved the ADR programs by Decision 12-04-045 and Decision 14-05-025.

“Automated Demand Response Customer” or “ADR Customer” is a non-Residential Customer that has installed the ADR equipment under Buyer’s ADR and received, at minimum, approval from Buyer that it has been approved for its first (60%) incentive payment.

“Availability Assessment Hours” or “AAH” has the meaning set forth in the CAISO Tariff.

“Award” has the meaning set forth in Section 6.6(b).

“Bankrupt” means with respect to any entity, such entity (i) files a petition or otherwise commences, authorizes or acquiesces in the commencement of a proceeding or cause of action under any bankruptcy, insolvency, reorganization or similar law, or has any such petition filed or commenced against it, (ii) makes an assignment or any general arrangement for the benefit of creditors, (iii) otherwise becomes bankrupt or insolvent (however evidenced), (iv) has a liquidator, administrator, receiver, trustee, conservator or similar official appointed with respect to it or any substantial portion of its property or assets, or (v) is generally unable to pay its debts as they fall due.

“Bankruptcy Code” means the United States Bankruptcy Code (11 U.S.C. §101 et seq.), as amended, and any successor statute.

“Bid” shall have the meaning in the CAISO Tariff.

“Bundled Service Customer” means a customer of Buyer as a utility distribution company who takes bundled services from Buyer as a utility distribution company including having all its power requirements purchased by Buyer.

“Business Day” means a day that is not a Saturday, Sunday, a Federal Reserve Bank holiday, or the Friday immediately following the U.S. Thanksgiving holiday. A Business Day shall open at 8:00 a.m. and close at 5:00 p.m. local time for the relevant Party’s principal place of business. The relevant Party, in each instance unless otherwise specified, shall be the Party from whom the notice, payment or delivery is being sent and by whom the notice or payment or delivery is to be received.

“Buyer” has the meaning set forth in the preamble.

“CAISO” means the California Independent System Operator Corporation or any successor entity performing the same functions.

“CAISO Markets” has the meaning set forth in the CAISO Tariff.

“CAISO Tariff” means the most current tariff and protocol provisions, including any current CAISO-published “Operating Procedures” and “Business Practice Manuals,” as amended or supplemented from time to time, of the CAISO.

“Capacity Baseline” means a CAISO baseline as applicable to the PDR(s) in the DRAM Resource, as specified in the CAISO Tariff and approved by the CPUC for retail settlement purposes in the DRAM, and as limited by the following: (i) a day matching customer load ten-in-ten baseline with a twenty percent (20%) cap; (ii) a weather matching baseline with a forty percent (40%) cap; (iii) the use of control groups; and (iv) a five-in-ten baseline for residential customers, with a forty percent (40%) cap, as utilized for the calculation of Qualifying Capacity and Demonstrated Capacity, and for CAISO settlements, in accordance with Section 1.6 of this Agreement.

“Capacity Procurement Mechanism” has the meaning set forth in the CAISO Tariff.

“Cash” means U.S. Dollars held by or on behalf of Buyer as Performance Assurance hereunder.

“Cash Interest Rate” means the Federal Funds Effective Rate - the rate per annum equal to that day opposite the “Monthly” caption “Federal Funds Rate ((Effective))” as reset on a monthly basis based on set forth in the latest month for which such rate is available) weekly statistical release designated as reported in Federal Reserve Bank Publication H.15- (519.), or its successor publication, published by the Board of Governors of the Federal Reserve System.

“Chapter 11 Cases” means Buyer’s Chapter 11 bankruptcy cases pending before the United States Bankruptcy Court for the Northern District of California, Case Nos. 19-30088 (DM) and 19-30089 (DM).

“Claiming Party” has the meaning set forth in Article 14.

“Commission” or “CPUC” means the California Public Utilities Commission, and all divisions thereof, or any successor thereto.

“Compliance Showing(s)” means the RAR compliance or advisory showings (or similar or successor showings), that an LSE is required to make to the CPUC (and, to the extent authorized by the CPUC, to

the CAISO) pursuant to the CPUC Decisions, to the CAISO pursuant to the CAISO Tariff, or to any Governmental Body having jurisdiction.

“Contract Price” means the price for each type of Product as specified in Exhibit E for each Showing Month.

“CPM Capacity” has the meaning set forth in the CAISO Tariff.

“CPUC Approval” means a decision of the CPUC that (i) is final and no longer subject to appeal, which approves the Agreement in full and in the form presented on terms and conditions acceptable to both Parties, including without limitation terms and conditions related to cost recovery and cost allocation of amounts paid to Seller under the Agreement; (ii) does not contain conditions or modifications unacceptable to both Parties; and (iii) finds that any procurement pursuant to this Agreement satisfies the requirement to procure preferred resources under Commission Decision 13-02-015.

“CPUC Decisions” means Commission Decisions 04-01-050, 04-10-035, 05-10-042, 06-04-040, 06-06-031, 06-06-064, 06-07-031, 07-06-029, 08-06-031, 09-06-028, 09-12-053, 10-06-036, 10-12-038, 11-06-022, 11-10-003, 12-06-025, 13-02-006, 13-04-013, 13-06-024, 14-03-026, 14-06-050, 14-12-024, 15-02-007, 15-06-063, 19-07-009, 19-06-026 and any other existing or subsequent decisions, resolutions, or rulings related to resource adequacy, including, without limitation, the CPUC RA Filing Guide, in each case as may be amended from time to time by the CPUC.

“CPUC RA Filing Guide” is the 2019 annual document issued by the Commission which sets forth the guidelines, requirements and instructions for LSE’s to demonstrate compliance with the Commission’s resource adequacy program.

“Credit Rating” means, with respect to any entity, the rating then assigned to such entity’s unsecured, senior long-term debt obligations (not supported by third party credit enhancements) or if such entity does not have a rating for its senior unsecured long-term debt, then the rating then assigned to such entity as an issuer rating by the Ratings Agencies.

“Customer” means a person or entity that is either a: (i) Bundled Service Customer; (ii) community choice aggregation customer or direct access customer who would otherwise be eligible to be a Bundled Service Customer; or (iii) Unbundled Service Customer.

“Customer Data Access Systems” has the meaning described in CPUC Decision 13-09-025.

“Day-Ahead Market” has the meaning set forth in the CAISO Tariff.

“Day-Ahead Schedule” has the meaning set forth in the CAISO Tariff.

“DC Dispatch” means a Dispatch of a PDR in the DRAM Resource in the CAISO market, in accordance with the CAISO Tariff, for a duration of (i) one (1) hour within the Availability Assessment Hours for all Showing Months except the Showing Month of August or (ii) two (2) consecutive hours within the Availability Assessment Hours for the Showing Month of August that is used to demonstrate capacity; provided that, such two (2) consecutive hours requirement may be satisfied by a combination of a DC Dispatch and a DC Test.

“DC-QC Ratio” has the meaning set forth in Section 4.1.

“DC Test” means a capacity test of a PDR in the DRAM Resource for one hundred percent (100%) of such PDR’s Qualifying Capacity for the applicable Showing Month (where such Qualifying Capacity has been submitted in Seller’s Supply Plan for that Showing Month), with a duration of at least two (2) consecutive Availability Assessment Hours, conducted by the Seller’s SC during the applicable Showing Month, in accordance with the CAISO Tariff and D.14-06-050, Appendix B, that is used to demonstrate capacity.

“Default Adjustment Value” has the meaning set forth in Section 7.2(b)(v)(B), CPUC Resolution E-4838, and CPUC Resolution E-4906.

“Defaulting Party” has the meaning set forth in Section 9.1.

“Delivered Capacity Payment” has the meaning described in and is calculated pursuant to Section 4.1.

“Delivery Period” has the meaning set forth in Section 1.3.

“Demand Response Provider” or “DRP” has the meaning in the CAISO Tariff.

“Demonstrated Capacity” has the meaning set forth in Section 1.6(a).

“Dispatch” means the act of reducing all or a portion of the electrical consumption of the PDR pursuant to a Dispatch Instruction.

“Dispatch Instruction” has the meaning in the CAISO Tariff.

“Dispute” means any and all disputes, claims or controversies arising out of, relating to, concerning or pertaining to the terms of this Agreement, or to either Party’s performance or failure of performance under this Agreement.

“Distributed Energy Resource Aggregation” has the meaning in the CAISO Tariff.

“Diverse Business Enterprises” or “DBE” means Women, Minority, Disabled Veteran (WMDV) and Lesbian, Gay, Bisexual and Transgender (LGBT) Business Enterprises as defined in CPUC General Order 156.

“DRAM” means the Demand Response Auction Mechanism, which is a procurement mechanism during *[Year]* for the Product as described in CPUC D.14-12-024, D.17-10-017, and D.19-07-009.

“DRAM Resource” means the sum of the PDR(s) that Seller identifies pursuant to Section 1.4 that will provide Product to Buyer.

“DRAM Resource Customer” is a Bundled Service Customer or Unbundled Service Customer account at the Service Account Identification level that is included in the DRAM Resource.

“Early Termination Date” has the meaning set forth in Section 9.2(a).

“EFC” shall mean Effective Flexible Capacity as defined in the CAISO Tariff.

“Event of Default” has the meaning set forth in Section 9.1.

“Execution Date” has the meaning set forth in the preamble.

“Executive(s)” has the meaning set forth in Section 10.1(a).

“FERC” means the Federal Energy Regulatory Commission, or any division thereof.

“Flexible Capacity” means any and all flexible resource adequacy attributes associated with the PDR(s) designated by Seller pursuant to Section 1.4, as such attributes may be identified from time to time by the CPUC, CAISO, or other Governmental Body having jurisdiction, that can be counted toward Flexible RAR, and which may be (i) exclusive of Local Capacity and (ii) be in Flexible Category 1 (base flexibility), 2 (peak flexibility) or 3 (super-peak flexibility) as described in the CAISO Tariff.

“Flexible RAR” means the flexible resource adequacy requirements established for LSEs by the CPUC pursuant to the CPUC Decisions, or by any other Governmental Body having jurisdiction.

“Force Majeure” means an event or circumstance which prevents one Party from performing its obligations under this Agreement, which event or circumstance was not anticipated as of the Execution Date, which is not within the reasonable control of, or the result of the negligence of, the Claiming Party, and which, by the exercise of due diligence, the Claiming Party is unable to overcome or avoid or cause to be avoided. Force Majeure shall not be based on (i) the loss of Buyer’s markets; (ii) Buyer’s inability economically to use or resell the Product purchased hereunder; (iii) the loss or failure of Seller’s supply; (iv) Seller’s ability to sell the Product at a greater price; (v) a failure of performance of any other entity that is not a Party, except to the extent that such failure was caused by an event that would otherwise qualify as a Force Majeure event; or (vi) breakage or malfunction of equipment, except to the extent that such failure was caused by an event that would otherwise qualify as a Force Majeure event.

“GAAP” means United States generally accepted accounting principles as in effect from time to time, consistently applied.

“Governmental Body” means any federal, state, local, municipal or other government; any governmental, regulatory or administrative agency, commission or other authority lawfully exercising or entitled to exercise any administrative, executive, judicial, legislative, police, regulatory or taxing authority or power; and any court or governmental tribunal.

“Initial Negotiation End Date” has the meaning set forth in Section 10.1(a).

“Interest Amount” means with respect to a Party and an Interest Period, the sum of the daily interest amounts for all calendar days in such Interest Period; each daily interest amount to be determined by such Party as follows: (i) the amount of Cash held by such Party on that day; multiplied by (ii) the Cash Interest Rate for that day, divided by (iii) 360.

“Interest Period” means the period from (and including) the last Business Day on which an Interest Amount was Transferred by a Party (or if no Interest Amount has yet been Transferred by such Party, the Business Day on which Cash was Transferred to such Party) to (but excluding) the Business Day on which the current Interest Amount is to be Transferred.

“JAMS” has the meaning set forth in Article 10.3.

“Joint Resource” means respectively a PDR which includes DRAM Resource Customers registered by the Seller (or its DRP) and other customers registered by another aggregator (or its DRP) who are not considered part of the respective PDR for purposes of meeting Seller’s obligations under this Agreement.

“LCA Customers” means a Customer that either (i) directly takes or receives electricity services from Buyer’s LCA or (ii) directly takes or receives electricity services from a lower voltage substation that electrically connects to Buyer’s LCA.

“Letter of Credit” means an irrevocable, non-transferable standby letter of credit, the form of which must be substantially as contained in Exhibit B attached hereto; provided that, the issuer must be a Qualified Institution.

“Letter of Credit Default” means with respect to a Letter of Credit, the occurrence of any of the following events: (a) the issuer of such Letter of Credit shall fail to maintain a Credit Rating of at least “A”-, with a stable outlook designation from S&P and A3, with a stable outlook designation from Moody’s, if such issuer is rated by both S&P and Moody’s, “A-“ by S&P with a stable outlook designation, if such issuer is rated only by S&P, or “A3” by Moody’s with a stable outlook designation, if such issuer is rated only by Moody’s; (b) the issuer of the Letter of Credit shall fail to comply with or perform its obligations under such Letter of Credit; (c) the issuer of such Letter of Credit shall disaffirm, disclaim, repudiate or reject, in whole or in part, or challenge the validity of, such Letter of Credit; (d) such Letter of Credit shall expire or terminate, or shall fail or cease to be in full force and effect at any time during the Term of the Agreement, in any such case without replacement; or (e) the issuer of such Letter of Credit shall become Bankrupt; provided, no Letter of Credit Default shall occur or be continuing in any event with respect to a Letter of Credit after the time such Letter of Credit is required to be canceled or returned to a Party in accordance with the terms of this Agreement.

“Local Capacity” means any and all resource adequacy attributes or other locational attributes associated with the PDR(s) designated by Seller and comprised of LCA Customers pursuant to Section 1.4, from a Local Capacity Resource (as defined in CAISO Tariff) in Buyer’s Local Capacity Area, as applicable and as such attributes may be identified from time to time by the CPUC, CAISO, or other Governmental Body having jurisdiction, that can be counted toward Local RAR, which may be exclusive of any Flexible Capacity, as applicable to the Product.

“Local Capacity Area” or “LCA” means the areas where LCA Customers are electrically interconnected to any of the PG&E LCA Substations.

“Local RAR” means the local resource adequacy requirements established for LSEs by the CPUC pursuant to the CPUC Decisions, or by any other Governmental Body having jurisdiction. Local RAR may also be known as local area reliability, local resource adequacy, local resource adequacy procurement requirements, or local capacity requirement in other regulatory proceedings or legislative actions.

“LSE” means load-serving entity.

“Manager” has the meaning set forth in Section 10.1(a).

“Merger Event” means, with respect to a Party, that such Party consolidates or amalgamates with, merges into or with, or transfers substantially all its assets to another entity and (i) the resulting entity fails to assume all the obligations of such Party hereunder, or (ii) the resulting entity’s creditworthiness is materially weaker than that of such Party immediately prior to such action. The creditworthiness of the resulting entity shall not be deemed to be ‘materially weaker’ so long as the resulting entity maintains a Credit Rating of at least that of the applicable Party, as the case may be, immediately prior to the consolidation, merger or transfer.

“Monthly Contracted Quantity” means the respective amount of each type of Product set forth in Exhibit E that Seller has agreed to provide to Buyer from the DRAM Resource for each day of the respective Showing Months.

“Monthly Quantity” means the aggregate amount of all Monthly Contracted Quantities set forth in Exhibit E that Seller has agreed to provide to Buyer from the DRAM Resource for each day of the respective Showing Months for the respective types of Product.

“Moody’s” means Moody’s Investors Service, Inc. or its successor.

“Must-Offer Obligation” or “MOO” means Seller’s obligation to Bid or cause Seller’s SC to Bid the DRAM Resource into the CAISO Markets based on the type of Product and in accordance with the CAISO Tariff.

“NQC” shall mean Net Qualifying Capacity as defined in the CAISO Tariff.

“Notification Time” means the 10:00 a.m. Pacific Prevailing Time on a Business Day.

“Non-Competitive Behavior” means bidding behavior providing clear evidence of market manipulation or collusion.

“Non-Defaulting Party” has the meaning set forth in Section 9.2.

“Notice” means notices, requests, statements or payments provided in accordance with Article 8.

“Partial DC Dispatch” has the meaning set forth in Section 1.6(a)(i).

“Performance Assurance” has the meaning set forth in Section 5.1(a). Performance Assurance must be in the form of Cash or Letter of Credit. Any Cash received and held by Buyer after drawing on any Letter of Credit will constitute Performance Assurance in the form of Cash.

“PG&E LCA Substations” means the substations located in Buyer’s service territory as designated in EXHIBIT F and corresponding to the following LCAs as designated on EXHIBIT F: Kern, Stockton, Sierra, Other, North Coast/North Bay, Humboldt, Greater Fresno Area, and/or Greater Bay Area.

“Potential Event of Default” means an event which, with Notice or passage of time or both, would constitute an Event of Default.

“Procurement Review Group” has the meaning set forth in Section 13.1.

“Product” means either System Capacity, Local Capacity and/or Flexible Capacity. The particular type of Product sold by Seller to Buyer under this Agreement is specified in Table 1.1(b). Buyer and Seller will have separate agreements for separate products and will combine multiple awards of the same product into one agreement at a weighted average price.

“Prohibited Resource” means a distributed generation technology using diesel, natural gas, gasoline, propane, or liquefied petroleum gas, in topping cycle Combined Heat and Power (CHP) or non-CHP configuration. The following resources are exempt: pressure reduction turbines and waste-heat-to-power bottoming cycle CHP, resources using renewable fuels (i.e. renewable gas, renewable diesel, and biodiesel) that have received certification from the California Air Resources Board, as well as energy storage resources not coupled with fossil fueled resources.

“Proxy Demand Resource” or “PDR” has the meaning in the CAISO Tariff.

“QC Implementation Guidelines” has the meaning set forth in Section 3.1(a)(ii).

“Qualifying Capacity” means the load reduction for each PDR in the DRAM Resource, calculated utilizing the Capacity Baseline, consistent with the QC Implementation Guidelines, the CPUC Decisions and the CAISO Tariff.

“Qualified Institution” means either a U.S. commercial bank, or a U.S. branch of a foreign bank acceptable to Buyer in its sole discretion; and in each case such bank must have a Credit Rating of at least: (a) “A-, with a stable designation” from S&P and “A3, with a stable designation” from Moody’s, if such bank is rated by both S&P and Moody’s; or (b) “A-, with a stable designation” from S&P or “A3, with a stable designation” from Moody’s, if such bank is rated by either S&P or Moody’s, but not both, even if such bank was rated by both S&P and Moody’s as of the date of issuance of the Letter of Credit but ceases to be rated by either, but not both of those Ratings Agencies.

“RAR” means the resource adequacy requirements established for LSEs by the Commission pursuant to the CPUC Decisions, the CAISO pursuant to the CAISO Tariff, or by any other Governmental Body having jurisdiction, or successor program requirements.

“Ratings Agency” means either S&P or Moody’s (collectively the ‘Ratings Agencies’).

“Referral Date” has the meaning set forth in Section 10.1(a).

“Resource Adequacy” and “Resource Adequacy Benefits” have the meanings set forth in the CPUC Decisions.

“Resource ID” has the meaning in the CAISO Tariff.

“Residential Customer” means a DRAM Resource Customer whose dwelling is single-family units, multi-family units, mobile homes, or other similar living establishments.

“Residential Customer Product” means Product that is comprised solely of Residential Customers and Small Commercial Customers; provided that the percentage of Residential Customers in the PDR(s) constituting the DRAM Resource is equal to or greater than ninety percent (90%). Where multiple PDRs, or portions thereof, are used to meet Seller’s Demonstrated Capacity obligations, the percentage requirements apply in the aggregate, based on the total number of PDR Customer service accounts in the DRAM Resource used to show Demonstrated Capacity.

“Revenue Quality Meter Data” means interval meter data that has been validated, edited, and estimated in accordance with the Direct Access Standards for Metering and Meter Data as described in Rule 22.

“Rule 24” means Direct Participation Demand Response:
https://www.pge.com/tariffs/assets/pdtariffbook/ELEC_RULES_24.pdf

“S&P” means Standard & Poor’s Financial Services LLC, or its successor.

“SAID” or “Service Agreement Identification” means a Buyer specific identifier or number for tracking energy service deliveries for a specific load through one or more meters at a customer premises or location as described in Rule 1.

“Scheduling Coordinator” or “SC” has the meaning set forth in the CAISO Tariff.

“Seller” has the meaning set forth in the preamble.

“Settlement Amount” means the sum of the estimated Delivered Capacity Payments for all of the remaining Showing Months of the original Delivery Period as in effect prior to such early termination, including the current Showing Month if not invoiced pursuant to Section 4.2, as of the Early Termination Date, with such estimated Delivered Capacity Payments being based on the sum of the applicable Monthly Contracted Quantity times the applicable Contract Price for each type of Product.

“Shortfall Capacity” means the amount of capacity with respect to the Monthly Contracted Quantity for a type of Product for any portion of a Showing Month which was shown by Buyer in its Compliance Showing that CAISO determines requires outage replacement in accordance with Section 40.7 of the CAISO Tariff.

“Showing Month” shall be each day of each calendar month of the Delivery Period that is the subject of the Compliance Showing, as set forth in the CPUC Decisions and outlined in the CAISO Tariff. For illustrative purposes only, pursuant to the CAISO Tariff and CPUC Decisions in effect as of the Execution Date, the monthly Compliance Showing made in June is for the Showing Month of August.

“Small Commercial Customer” means a DRAM Resource Customer who: (a) has a maximum billing demand of 20 kW, or less, per meter during the most recent 12 month period, or (b) has an annual usage of 40,000 kWh, or less, during the most recent 12 month period.

“Supply Plan” has the meaning set forth in the CAISO Tariff.

“System Capacity” means system Resource Adequacy Benefits associated with the PDR(s) designated by Seller pursuant to Section 1.4, as such attributes may be identified from time to time by the CPUC, CAISO, or other Governmental Body having jurisdiction, that can be counted toward RAR, which may be exclusive of any Local Capacity and Flexible Capacity as indicated on Table 1.1(b).

“Term” has the meaning set forth in Section 1.2.

“Termination Payment” means the sum of all amounts owed by the Defaulting Party to the Non-Defaulting Party under this Agreement, which shall include the Settlement Amount, less any amounts owed by the Non-Defaulting Party to the Defaulting Party determined as of the Early Termination Date. If Buyer is the Non-Defaulting Party and reasonably expects to incur penalties, fines or costs from the CPUC, the CAISO, or any other Governmental Body, then Buyer may estimate the penalties or fines and include them in the Termination Payment amount.

“Transfer” means, with respect to any Performance Assurance or Interest Amount, and in accordance with the instructions of the Party entitled thereto: (i) in the case of Cash, payment or transfer by wire transfer into one or more bank accounts specified by the recipient; (ii) in the case of Letters of Credit, delivery of the Letter of Credit or an amendment thereto to the recipient.

“Unbundled Service Customer” means a retail customer of the Buyer acting as a utility distribution company, who takes and receives its electrical power requirements from a different Load Serving Entity that is not the Buyer, pursuant to CPUC Rule 22 Direct Access or Rule 23 Community Choice Service.

“Verification Administrator” has the meaning set forth in CPUC Resolution E-4838 and CPUC Resolution E-4906.

EXHIBIT B

PG&E Form of Letter of Credit

Issuing Bank Letterhead and Address

STANDBY LETTER OF CREDIT NO. XXXXXXXX

Date: [insert issue date]

Beneficiary:

Applicant: [Insert name of Applicant and address]

Attention:

Letter of Credit Amount: [insert amount]

Expiry Date: [insert expiry date]

Ladies and Gentlemen:

By order of **[Insert name of Applicant]** (“Applicant”), we hereby issue in favor of **[Insert name of Beneficiary]** (the “Beneficiary”) our irrevocable standby letter of credit No. **[Insert number of letter of credit]** (“Letter of Credit”), for the account of Applicant, for drawings up to but not to exceed the aggregate sum of U.S. \$ **[Insert amount in figures followed by (amount in words)]** (“Letter of Credit Amount”). This Letter of Credit is available with **[Insert name of bank, and the city and state in which it is located]** by sight payment, at our offices located at the address stated below, effective immediately. This Letter of Credit will expire at our close of business on **[Insert expiry date]** (the “Expiry Date”).

Funds under this Letter of Credit are available to the Beneficiary against presentation of the following documents:

1. Beneficiary’s signed and dated sight draft in the form of Annex A hereto, referencing this Letter of Credit No. **[Insert number]** and stating the amount of the demand; and
2. One of the following dated statements signed by an authorized representative or officer of Beneficiary:
 - A. “**[Insert name of Beneficiary]** (the “Beneficiary”) is entitled to draw the amount of **[Spell out the amount followed by (US\$xxxxxxx.xx)]**, under Letter of Credit No. **[Insert number]** owed by **[Insert name of Beneficiary’s counterparty under the DRAM Resource Purchase Agreement]** or its assignee to Beneficiary under or in connection with the Demand Response Auction Mechanism Resource Purchase Agreement dated **[Insert the Execution Date of the DRAM Resource Purchase Agreement]** between the Beneficiary and **[Insert name of Beneficiary’s counterparty under the DRAM Resource Purchase Agreement]** or its assignee”
 - B. “Letter of Credit No. **[Insert number]** will expire in thirty (30) days or less and **[Insert name of Beneficiary’s counterparty under the DRAM Resource Purchase Agreement]** or its assignee has not provided replacement Performance Assurance acceptable to **[Insert name of Beneficiary] (the Beneficiary)**, and the amount of **[Spell out the amount followed by (US\$xxxxxxx.xx)]** of the accompanying sight draft does not exceed the amount of Performance Assurance that **[Insert name of Beneficiary’s counterparty under the DRAM Resource Purchase Agreement]** or its assignee is required to transfer to the Beneficiary under the terms of the Demand Response Auction Mechanism Resource Purchase Agreement dated **[Insert the Execution Date of the DRAM Resource Purchase Agreement]** between **[Insert name of Beneficiary’s counterparty under the DRAM Resource Purchase Agreement]** and the Beneficiary.

Special Conditions:

1. Partial and multiple drawings under this Letter of Credit are allowed;
2. All banking charges associated with this Letter of Credit are for the account of the Applicant;
3. This Letter of Credit is not transferable; and
4. A drawing for an amount greater than the Letter of Credit Amount is allowed, however, payment shall not exceed the Letter of Credit Amount.

We engage with you that drafts drawn under and in compliance with the terms and conditions of this Letter of Credit will be duly honored upon presentation, if presented on or before the Expiry Date (or after the Expiry Date as provided below regarding events of Force Majeure), at **[Insert bank's address for drawings]**.

All demands for payment shall be made by presentation of copies or original documents, or by facsimile transmission of documents to **[Insert fax number or numbers]**, Attention: **[Insert name of bank's receiving department]**. If a demand is made by facsimile transmission, the originals or copies of documents must follow by overnight mail, and you may contact us at **[Insert phone number(s)]** to confirm our receipt of the transmission. Your failure to seek such a telephone confirmation does not affect our obligation to honor such a presentation.

Our payments against complying presentations under this Letter of Credit will be made no later than on the sixth (6th) banking day following a complying presentation.

Except as stated herein, this Letter of Credit is not subject to any condition or qualification. It is our individual obligation, which is not contingent upon reimbursement and is not affected by any agreement, document, or instrument between us and the Applicant or between the Beneficiary and the Applicant or any other party.

Except as otherwise specifically stated herein, this Letter of Credit is subject to and governed by the *Uniform Customs and Practice for Documentary Credits, 2007 Revision*, International Chamber of Commerce (ICC) Publication No. 600 (the "UCP 600"); provided that, if this Letter of Credit expires during an interruption of our business as described in Article 36 of the UCP 600, we will honor drafts presented in compliance with this Letter of Credit if presented within thirty (30) days after the resumption of our business, and we will effect payment accordingly.

The law of the State of New York shall apply to any matters not covered by the UCP 600.

For telephone assistance regarding this Letter of Credit, please contact us at **[insert number and any other necessary details]**.

Very truly yours,

[insert name of issuing bank]

By: _____
Authorized Signature

Name: **[print or type name]**

Title: **[print or type title]**

Annex A SIGHT DRAFT

TO

[INSERT NAME AND ADDRESS OF PAYING BANK]

AMOUNT: \$_____ DATE: _____

AT SIGHT OF THIS DEMAND PAY TO THE ORDER OF [insert name of Beneficiary] THE AMOUNT OF
U.S.\$_____(_____ U.S. DOLLARS)

DRAWN UNDER [INSERT NAME OF ISSUING BANK] LETTER OF CREDIT NO. XXXXXX.

REMIT FUNDS AS FOLLOWS:

[INSERT PAYMENT INSTRUCTIONS]

DRAWER

BY: _____
NAME AND TITLE

Form of Notice of Demonstrated Capacity

Demand Response Auction Mechanism (DRAM)

EXHIBIT C-1 - Notice
For use with System and Local Emergency Product

Showing Month: _____
 Seller: _____
 Seller Contact Name: _____
 Seller Contact Phone: _____
 SCID: _____
 Local Capacity Area (LCA): _____ (mark "N/A" if not a Local Capacity product)

Total "Monthly Quantity" (MW):
Total "Demonstrated Capacity" (MW): 0.00 MW
Residential Product (Yes / No):
Unlevered Capacity Payment Formula: "U" = 0.00 MW

Therefore, in Delivered Capacity Payment formula, "IT" = 0.00 MW

[illegible]

The information provided by Seller in this Notice of Determined Capacity is required by Section 1.8 of the OPA&P Resource Purchase Agreement with Cinergy (CII) name-

* A comparison of a training chapter and the code can lead to satisfy the ALJ and Commissioner that requirement if the training chapter does not cover the two compliance rules.

Form: FC (June) 1984A Exhibit C - Demographic Capacity Template for 2022 Realistic

Form of Notice of Demonstrated Capacity

Demand Response Auction Mechanism (DRAM)

For use with Flexible Capacity Product

Showing Month: _____
 Seller: _____
 Seller Contact Name: _____
 Seller Contact Phone: _____
 SICID: _____
 Local Capacity Area (LCA): _____ (mark "n/a" if not a Local Capacity product)

Total "Monthly Quantity" (MW):	
Total "Demonstrated Capacity" (MW):	0.00 MW
Residential Product (Yes / No):	
Delivered Capacity Payment formula, "B" =	0.00 MW

[illegible]

The information provided by Seller in this Notice of Designated Capacity is required by Section 1.5 of the DRAM Resource Purchase Agreement with ~~Almad~~ ICU names.

⁵ A combination of a market dispatch and test could be used to satisfy the August big consecutive hour requirement if the CAISO market dispatch does not cover the big consecutive hours.

Form: EFC (clean) DRAM Subit C- Demonstrated Capacity Template for 2020 Real also

EXHIBIT D

Form of Notice of Showing Month Supply Plan

[illegible]

EXHIBIT E
MONTHLY CONTRACTED QUANTITY
AND
CORRESPONDING CONTRACT PRICE

Showing Month	Product [Insert]	
	2020	
	Monthly Quantity (kW for each day of Showing Month)	Contract Price (\$/kW-month)
June		
July		
August		
September		
October		
November		
December		

[Parties to complete one table for each type of Product indicated in Table 1.1(b) and accepted bid information.]

EXHIBIT F
IMPLEMENTATION GUIDELINES FOR QUALIFYING CAPACITY
(D.19-07-009 Appendix A, as modified by D.19-09-041)

A. Sellers should provide the following details to the Utility for demand response resources being offered, with the auction capacity bid submission and no later than 10 business days before the year-ahead filings and monthly Supply Plans are due for the Seller:

1. Customer class (or percent of mix): Residential, Non-residential
2. Nature of load being aggregated: such as, whole house, Air Conditioning load, storage, building load, pumps, Electric Vehicles, or other (describe)
3. Dispatch method: automated via cloud control, or other (describe)
4. Projected number of Service Accounts, including a breakdown of the active and registered number of Service Accounts within the total projected service account numbers.
5. Projected aggregated load (if storage based, projected aggregated capacity)
6. Projected percentage of load impact or reduction (if storage based, projected percentage of capacity delivered)
7. Supporting historical performance data for A.6 (from a prior test or market dispatch for a demand response resource with similar characteristics as A.1, A.2, and A.3). Where historical data is not available, the Provider should reference suitable publicly available performance data that best represents the anticipated performance of the resource. Along with the supporting performance data, the following details for the resource associated with the supporting performance data should be provided to establish similar characteristics:
 - a. Customer class (or percentage mix): Residential, Non-residential
 - b. Nature of load being aggregated: such as, whole house, Air Conditioning load, storage, building load, pumps, Electric Vehicles, or other (describe)
 - c. Dispatch method: automated via cloud control, or other (describe)
 - d. Number of Service Accounts
 - e. Aggregated load (if storage based, aggregated capacity)
 - f. Percentage of load impact or reduction delivered (if storage based, percentage of capacity delivered.)
8. Estimated Qualifying Capacity = A.5 x A.6

B. Qualifying Capacity estimates should be provided for the resource adequacy measurement hours and are expected to align with the CAISO Availability Assessment Hours.

C. The same baseline must be used for estimation of Qualifying Capacity for the monthly Supply Plan submission, the energy settlement at the CAISO, and invoicing of Demonstrated Capacity for the applicable month.

D. To the extent the projected percentage load impact for capacity delivered in A.6 deviates from the supporting data in A.7, the Provider should provide supplemental information to explain the reasonableness of the resulting “Estimated Qualifying Capacity” provided in A.8.

E. To the extent the contract/ resource consists of heterogenous combination of load types (in terms of A.1 through A.3 characteristics), the Provider could subdivide the contract/resource and provide the above information for each component and apply a weighted average to estimate Qualifying Capacity in A.8.

F. For auction bid submissions and the year-ahead resource adequacy filing, it is sufficient to provide the above information for the month with the highest megawatts. For monthly resource adequacy Supply Plan submissions, the above information should correspond to the actual delivery month.

G. At the auction bid submissions and the year-ahead resource adequacy filing, it is sufficient to provide the above information at the contract level. For monthly resource adequacy Supply Plan submissions, the above information must be provided at the resource level.

EXHIBIT G
PG&E LOCAL CAPACITY AREA SUBSTATIONS

Substation Description	Substation_CD	Local Capacity Area
18TH STREET	02239	Greater Bay Area
21ST AVENUE	02255	Greater Bay Area
6TH AVENUE	02253	Greater Bay Area
7TH STANDARD	25458	Kern
8TH AVENUE	01267	Greater Bay Area
ACTON	02247	Greater Bay Area
AIRWAYS	25204	Greater Fresno Area
ALHAMBRA	01410	Greater Bay Area
ALLEGHANY	15210	Sierra
ALMADEN	08231	Greater Bay Area
ALPAUGH	25400	None
ALPINE	16356	None
ALTO	04203	North Coast/North Bay
AMES	08390	Greater Bay Area
ANDERSON	10326	None
ANGIOLA	25215	Greater Fresno Area
ANITA	10284	None
ANNAPOLIS	04286	North Coast/North Bay
ANTELOPE	25202	None
ANTLER	10327	None
APPLE HILL	15366	Sierra
ARANA	08301	Greater Bay Area
ARBUCKLE	06208	None
ARCATA	19202	Humboldt
ARLINGTON	01370	Greater Bay Area
ARVIN	25380	None
ASHLAN AVE	25205	Greater Fresno Area
ATASCADERO	18254	None
ATWATER	25361	Greater Fresno Area
AUBERRY	25415	Greater Fresno Area
AUBURN	15216	Sierra
AVENA	16357	Stockton
AVENAL	25500	Greater Fresno Area
BABEL	01385	Greater Bay Area
BAHIA	04325	None
BAIR	02426	Greater Bay Area
BAKERSFIELD	25337	None
BALCH NO 1	25250	Greater Fresno Area
BALFOUR	01432	Greater Bay Area
BANCROFT	01303	Greater Bay Area
BANGOR	10319	Sierra
BANTA	16247	Stockton
BARRETT	01302	Greater Bay Area
BARRY	15211	Sierra
BARTON	25357	Greater Fresno Area
BASALT	04246	North Coast/North Bay

Substation Description	Substation_CD	Local Capacity Area
BATAVIA	06866	None
BAY MEADOWS	02401	Greater Bay Area
BAYSHORE	02289	Greater Bay Area
BAYWOOD	18280	None
BEACH (Q)	02234	Greater Bay Area
BEAR VALLEY	25219	Greater Fresno Area
BECK STREET	01264	Greater Bay Area
BELL	15270	Sierra
BELLE HAVEN	02402	Greater Bay Area
BELLEVUE	04318	North Coast/North Bay
BELMONT	02403	Greater Bay Area
BELRIDGE 1A	25437	None
BELRIDGE 1B	25438	None
BEN LOMOND	08304	Greater Bay Area
BERESFORD	02404	Greater Bay Area
BERKELEY F	01206	Greater Bay Area
BERKELEY T	01266	Greater Bay Area
BERREND A	25426	None
BERREND C	25448	None
BETHEL BANK	01815	Greater Bay Area
BIG BASIN	08284	Greater Bay Area
BIG BEND	10375	Sierra
BIG LAGOON	19236	Humboldt
BIG MEADOWS	10281	None
BIG RIVER	04308	North Coast/North Bay
BIG TREES	08305	Greater Bay Area
BIOLA	25221	Greater Fresno Area
BLACKWELL	25468	None
BLUE LAKE	19218	Humboldt
BOGARD	10330	None
BOGUE	15378	Sierra
BOLINAS	04226	North Coast/North Bay
BOLTHOUSE FARMS	25818	Kern
BONITA	25539	Greater Fresno Area
BONNIE NOOK	15230	Sierra
BORDEN	25512	Greater Fresno Area
BORONDA	18246	Greater Bay Area
BOSTON	01332	Greater Bay Area
BOSWELL	25494	Greater Fresno Area
BOWLES	25353	Greater Fresno Area
BRENTWOOD	01459	Greater Bay Area
BRIDGEVILLE	19246	Humboldt
BRITTON	08361	Greater Bay Area
BROOKSIDE	01321	Greater Bay Area
BROWNS VALLEY	15292	Sierra
BRUNSWICK	15248	Sierra
BRYANT	01309	Greater Bay Area
BUCKS CREEK	10221	Sierra
BUELLTON	18304	None

Substation Description	Substation_CD	Local Capacity Area
BUENA VISTA	18226	Greater Bay Area
BULLARD	25396	Greater Fresno Area
BURLINGAME	02405	Greater Bay Area
BURNEY	10331	None
BURNS	18358	Greater Bay Area
BUTTE	10308	None
CABRILLO	18310	None
CADET	25482	None
CAL WATER	25545	Kern
CALAVERAS CEMENT	16221	None
CALFLAX	25344	Greater Fresno Area
CALIFORNIA AVE	25228	Greater Fresno Area
CALISTOGA	04271	North Coast/North Bay
CALPELLA	04341	North Coast/North Bay
CALPINE	04801	North Coast/North Bay
CAMBRIA	18277	None
CAMDEN	25230	Greater Fresno Area
CAMP EVERS	08362	Greater Bay Area
CAMPHORA	18207	Greater Bay Area
CANAL	25209	Greater Fresno Area
CANTUA	25359	Greater Fresno Area
CAPAY	10211	None
CARBONA	16309	Stockton
CARLOTTA	19229	Humboldt
CARMEL	18204	Greater Bay Area
CARNATION	25528	Kern
CARNERAS	25232	None
CAROLANDS	02406	Greater Bay Area
CARQUINEZ	04328	North Coast/North Bay
CARRIZO PLAINS	25346	None
CARUTHERS	25237	Greater Fresno Area
CASSERLY	08311	Greater Bay Area
CASSIDY	25427	Greater Fresno Area
CASTRO	02248	Greater Bay Area
CASTRO VALLEY	01409	Greater Bay Area
CASTROVILLE	18235	Greater Bay Area
CATLETT	15376	Sierra
CAWELO B	25262	Kern
CAWELO C	25263	Kern
CAYETANO	01442	Greater Bay Area
CAYUCOS	18255	None
CEDAR CREEK	10332	None
CELERON	25527	None
CENTERVILLE	10202	None
CHALLENGE	10320	Sierra
CHANNEL	16307	Stockton
CHARCA	25450	None
CHEROKEE	16365	Stockton
CHESTER	10318	None

Substation Description	Substation_CD	Local Capacity Area
CHICO A	10205	None
CHICO B	10249	None
CHICO C	10265	None
CHOLAME	18256	None
CHOWCHILLA	25410	Greater Fresno Area
CLARK ROAD	10309	None
CLARKSVILLE	15361	Sierra
CLAY	16334	None
CLAYTON	01202	Greater Bay Area
CLEAR LAKE	04214	North Coast/North Bay
CLIFF DRIVE	08323	Greater Bay Area
CLOVERDALE	04282	North Coast/North Bay
CLOVIS	25408	Greater Fresno Area
CMC	18311	None
COALINGA NO 1	25216	Greater Fresno Area
COALINGA NO 2	25238	Greater Fresno Area
COARSEGOLD	25443	Greater Fresno Area
COAST RD	08882	Greater Bay Area
COLONY	16223	Stockton
COLUMBIA HILL	15247	Sierra
COLUMBUS	25395	Kern
COLUSA	06202	None
COLUSA JUNCTION	06207	None
CONCORD NO 1	01296	Greater Bay Area
CONTRA COSTA	01365	Greater Bay Area
COPPERMINE	25241	Greater Fresno Area
COPUS	25387	Kern
CORCORAN	25217	Greater Fresno Area
CORDELIA	06270	North Coast/North Bay
CORDELIA	06270	None
CORNING	10333	None
CORONA	04349	North Coast/North Bay
CORRAL	16299	None
CORTINA	06312	None
COTATI	04227	North Coast/North Bay
COTTLE	16371	None
COTTONWOOD	10293	None
COUNTRY CLUB	16312	None
COVELO	04306	North Coast/North Bay
CRESCENT MILLS	10313	None
CRESSEY	25470	Greater Fresno Area
CROWS LANDING	16325	Stockton
CURTIS	16335	Stockton
CUYAMA	25314	None
DAIRYLAND	25242	Greater Fresno Area
DAIRYVILLE	10334	None
DALY CITY	02264	Greater Bay Area
DAVIS	06204	Sierra
DAYTON ROAD	10294	None

Substation Description	Substation_CD	Local Capacity Area
DEEPWATER	06362	Sierra
DEL MAR	15258	Sierra
DEL MONTE	18222	Greater Bay Area
DELEVAN	06955	None
DESCHUTES	10335	None
DEVILS DEN	25345	None
DIABLO CANYON	18900	None
DIAMOND SPRINGS	15226	Sierra
DINUBA	25409	Greater Fresno Area
DIVIDE	18257	None
DIXON	06206	None
DIXON LANDING	01472	Greater Bay Area
DOBBINS	15374	Sierra
DOLAN ROAD	18238	Greater Bay Area
DOS PALOS	25404	Greater Fresno Area
DOWNIEVILLE DIESEL	15800	Sierra
DRUM	15232	Sierra
DUMBARTON	01447	Greater Bay Area
DUNBAR	04307	North Coast/North Bay
DUNLAP	25406	Greater Fresno Area
DUNNIGAN	06381	None
EAST GRAND	02257	Greater Bay Area
EAST MARYSVILLE	15233	Sierra
EAST NICOLAUS	15215	Sierra
EAST QUINCY	10255	None
EAST STOCKTON	16313	Stockton
ECHO SUMMIT	15803	Sierra
EDENVALE	08295	Greater Bay Area
EDES	01368	Greater Bay Area
EEL RIVER	19238	Humboldt
EIGHT MILE	16391	None
EL CAPITAN	25388	Greater Fresno Area
EL CERRITO G	01250	Greater Bay Area
EL DORADO PH	15276	Sierra
EL NIDO	25245	Greater Fresno Area
EL PATIO	08292	Greater Bay Area
EL PECO	25398	Greater Fresno Area
ELECTRA	16216	None
ELK	04298	North Coast/North Bay
ELK CREEK	10278	None
ELK HILLS	25244	None
EMBARCADERO (Z)	02287	Greater Bay Area
EMERALD LAKE	02408	Greater Bay Area
ERTA	08351	Greater Bay Area
ESQUON	10217	None
ESTUDILLO	01348	Greater Bay Area
EUREKA A	19212	Humboldt
EUREKA E	19233	Humboldt
EVERGREEN	08201	Greater Bay Area

Substation Description	Substation_CD	Local Capacity Area
FAIRHAVEN	19245	Humboldt
FAIRMOUNT	01265	Greater Bay Area
FAIRVIEW	01343	Greater Bay Area
FAIRWAY	18206	None
FAMOSO	25246	Kern
FELLOWS	25424	None
FELTON	08314	Greater Bay Area
FIGARDEN	25455	Greater Fresno Area
FIREBAUGH	25347	Greater Fresno Area
FITCH MOUNTAIN	04275	North Coast/North Bay
FLINT	15253	Sierra
FLORENCE	01269	Greater Bay Area
FMC	08387	Greater Bay Area
FOOTHILL	18295	None
FORESTHILL	15218	Sierra
FORT BRAGG A	04276	North Coast/North Bay
FORT ORD	18240	Greater Bay Area
FORT ROSS	04285	North Coast/North Bay
FORT SEWARD	19232	Humboldt
FRANKLIN	01392	Greater Bay Area
FREMONT	01435	Greater Bay Area
FRENCH CAMP	16329	Stockton
FRENCH GULCH	10338	None
FROGTOWN	16345	Stockton
FRUITLAND	19231	Humboldt
FRUITVALE	25339	Kern
FULTON	04256	North Coast/North Bay
GABILAN	18233	Greater Bay Area
GALLO	25490	Greater Fresno Area
GANSNER	10302	None
GANSO	25454	None
GARBERVILLE	19222	Humboldt
GARCIA	04304	North Coast/North Bay
GARDNER	25493	None
GATES	25393	None
GEARY	01359	Greater Bay Area
GERBER	10339	None
GEYSERVILLE	04289	North Coast/North Bay
GIFFEN	25315	Greater Fresno Area
GILL	01355	Greater Bay Area
GIRVAN	10340	None
GLENN	10260	None
GLENWOOD	02409	Greater Bay Area
GOLDTREE	18258	None
GONZALES	18213	Greater Bay Area
GOOSE LAKE	25420	None
GRAND ISLAND	06246	Sierra
GRANT	01438	Greater Bay Area
GRASS VALLEY	15203	Sierra

Substation Description	Substation_CD	Local Capacity Area
GRAYS FLAT	10253	None
GREEN VALLEY	08319	Greater Bay Area
GREENBRAE	04309	North Coast/North Bay
GUALALA	04284	North Coast/North Bay
GUERNSEY	25266	Greater Fresno Area
GUSTINE	16311	Stockton
HALF MOON BAY	02410	Greater Bay Area
HALSEY	15224	Sierra
HAMILTON A	10212	None
HAMILTON BRANCH	10236	None
HAMMER	16330	None
HAMMONDS	25340	Greater Fresno Area
HARDING	16331	Stockton
HARDWICK	25371	Greater Fresno Area
HARRIS	19243	Humboldt
HARTER	15285	Sierra
HARTLEY	04321	North Coast/North Bay
HATTON	18229	Greater Bay Area
HAYWARD O	01224	Greater Bay Area
HENRIETTA	25268	Greater Fresno Area
HERDLYN	16374	None
HICKS	08343	Greater Bay Area
HIGGINS	15269	Sierra
HIGHLANDS	04336	North Coast/North Bay
HIGHWAY	04265	North Coast/North Bay
HILLSDALE	02411	Greater Bay Area
HOLLISTER	18249	Greater Bay Area
HOLLYWOOD	01317	Greater Bay Area
HONCUT	10321	Sierra
HOOPA	19240	Humboldt
HOPLAND	04225	North Coast/North Bay
HORSESHOE	15257	Sierra
HUMBOLDT BAY	19234	Humboldt
HUNTERS POINT (P)	02233	Greater Bay Area
HURON	25316	Greater Fresno Area
IGNACIO	04248	North Coast/North Bay
INDIAN FLAT	25269	Greater Fresno Area
INDUSTRIAL ACRES	18230	Greater Bay Area
IONE	16388	None
JACINTO	10285	None
JACOBS CORNER	25477	Greater Fresno Area
JAMESON	06380	None
JANES CREEK	19239	Humboldt
JARVIS	01350	Greater Bay Area
JERSEY ISLAND	01832	Greater Bay Area
JESSUP	10344	None
JOLON	18298	None
JUDAH	02240	Greater Bay Area
KANAKA	10322	Sierra

Substation Description	Substation_CD	Local Capacity Area
KEARNEY	25270	Greater Fresno Area
KERCKHOFF	25256	Greater Fresno Area
KERMAN	25271	Greater Fresno Area
KERN OIL	25272	Kern
KERN POWER	25526	Kern
KESWICK	10345	None
KETTLEMAN HILLS	25273	Greater Fresno Area
KING CITY	18203	None
KINGSBURG	25224	Greater Fresno Area
KIRKER	01445	Greater Bay Area
KNIGHTS LANDING	06272	Sierra
KONOCI	04331	North Coast/North Bay
LAKEVIEW	25341	None
LAKEVILLE	04337	North Coast/North Bay
LAKEWOOD	01353	Greater Bay Area
LAMMERS	16277	Stockton
LAMONT	25391	Kern
LARKIN (Y)	02280	Greater Bay Area
LAS AROMAS	01360	Greater Bay Area
LAS GALLINAS A	04299	North Coast/North Bay
LAS PALMAS	25492	Greater Fresno Area
LAS POSITAS	01440	Greater Bay Area
LAS PULGAS	02412	Greater Bay Area
LATHROP	16303	Stockton
LAURELES	18237	Greater Bay Area
LAWNDALE	02244	Greater Bay Area
LAWRENCE	08342	Greater Bay Area
LAYTONVILLE	04268	North Coast/North Bay
LE GRAND	25536	Greater Fresno Area
LEMOORE	25360	Greater Fresno Area
LERDO	25349	Kern
LINCOLN	15370	Sierra
LINDEN	16207	Stockton
LIVE OAK	15377	Sierra
LIVERMORE	01214	Greater Bay Area
LIVINGSTON	25226	Greater Fresno Area
LLAGAS	08318	Greater Bay Area
LOCKEFORD	16368	Stockton
LOCKHEED NO 1	08299	Greater Bay Area
LOCKHEED NO 2	08300	Greater Bay Area
LODI	16211	Stockton
LOGAN CREEK	10314	None
LONE TREE	01323	Greater Bay Area
LOS ALTOS	08224	Greater Bay Area
LOS COCHES	18215	None
LOS GATOS	08202	Greater Bay Area
LOS MOLINOS	10348	None
LOS OSITOS	18208	None
LOST HILLS	25428	None

Substation Description	Substation_CD	Local Capacity Area
LOW GAP	19241	Humboldt
LOYOLA	08216	Greater Bay Area
LUCERNE	04335	North Coast/North Bay
MABURY	08219	Greater Bay Area
MADERA	25276	Greater Fresno Area
MADISON	06317	None
MAGUNDEN	25277	Kern
MAINE PRAIRIE	06867	None
MALAGA	25425	Greater Fresno Area
MANCHESTER	25392	Greater Fresno Area
MANTECA	16261	Stockton
MAPLE	01352	Greater Bay Area
MAPLE CREEK	19210	Humboldt
MARICOPA	25421	None
MARINA (F)	02278	Greater Bay Area
MARIPOSA	25445	Greater Fresno Area
MARTELL	16301	None
MARYSVILLE	15201	Sierra
MAXWELL	06288	None
MC ARTHUR	10349	None
MC CALL	25412	Greater Fresno Area
MC FARLAND	25318	Kern
MC KEE	08353	Greater Bay Area
MC MULLIN	25441	Greater Fresno Area
MCAVOY TAP	01809	Greater Bay Area
MCKITTRICK	25278	None
MEADOW LANE	01430	Greater Bay Area
MENDOCINO	04295	North Coast/North Bay
MENDOTA	25231	Greater Fresno Area
MENLO	02413	Greater Bay Area
MERCED	25280	Greater Fresno Area
MERCED FALLS	25281	Greater Fresno Area
MERIDIAN	06254	None
MESA	18282	None
METTLER	16370	None
MIDDLE RIVER	16209	None
MIDDLETOWN	04314	North Coast/North Bay
MIDWAY	25261	None
MILLBRAE	02269	Greater Bay Area
MILPITAS	08283	Greater Bay Area
MIRA VISTA	01233	Greater Bay Area
MIRABEL	04209	North Coast/North Bay
MISSION (X)	02201	Greater Bay Area
MIWUK	16366	Stockton
MOLINO	04257	North Coast/North Bay
MONARCH	16230	Stockton
MONROE	04330	North Coast/North Bay
MONTAGUE	08389	Greater Bay Area
MONTE RIO	04281	North Coast/North Bay

Substation Description	Substation_CD	Local Capacity Area
MONTEREY	18209	Greater Bay Area
MONTICELLO	04305	North Coast/North Bay
MORAGA	01380	Greater Bay Area
MORGAN HILL	08324	Greater Bay Area
MORMON	16321	Stockton
MORRO BAY	18301	None
MOSHER	16372	None
MOUNTAIN QUARRIES	15228	Sierra
MOUNTAIN VIEW	08203	Greater Bay Area
MT EDEN	01376	Greater Bay Area
MUNI MARINA	02828	Greater Bay Area
NAPA	04202	North Coast/North Bay
NARROWS	15313	Sierra
NEW HOPE	16208	None
NEWARK	01222	Greater Bay Area
NEWBURG	19215	Humboldt
NEWHALL	25446	Greater Fresno Area
NEWMAN	16274	Stockton
NORCO	25469	None
NORD	10307	None
NORIEGA	02251	Greater Bay Area
NORTECH	08246	Greater Bay Area
NORTH BRANCH	16323	None
NORTH DUBLIN	01405	Greater Bay Area
NORTH TOWER	04204	Greater Bay Area
NOTRE DAME	10204	None
NOVATO	04221	North Coast/North Bay
OAK	01260	Greater Bay Area
OAK PARK	16327	Stockton
OAKHURST	25442	Greater Fresno Area
OAKLAND C	01201	Greater Bay Area
OAKLAND D	01204	Greater Bay Area
OAKLAND I	01208	Greater Bay Area
OAKLAND J	01209	Greater Bay Area
OAKLAND K	01210	Greater Bay Area
OAKLAND L	01211	Greater Bay Area
OAKLAND X	01254	Greater Bay Area
OCEAN	02258	Greater Bay Area
OCEANO	18260	None
OILFIELDS	18239	None
OLD RIVER	25282	Kern
OLEMA	04229	North Coast/North Bay
OLETA	16354	Sierra
OLIVEHURST	15290	Sierra
OPAL CLIFFS	08345	Greater Bay Area
OREGON TRAIL	10352	None
ORICK	19226	Humboldt
ORINDA	01235	Greater Bay Area
ORLAND B	10270	None

Substation Description	Substation_CD	Local Capacity Area
ORO FINO	10303	None
ORO LOMA	25537	Greater Fresno Area
OROSI	25284	Greater Fresno Area
OROVILLE	10252	Sierra
ORTIGA	25431	Greater Fresno Area
OTTER	18294	Greater Bay Area
PACIFIC GROVE	18244	Greater Bay Area
PACIFIC PIPE GRAPEVI	25544	None
PACIFICA	02281	Greater Bay Area
PALMER	18303	None
PALO SECO	01318	Greater Bay Area
PANAMA	25342	Kern
PANOCH	25367	None
PANORAMA	10346	None
PARADISE	10283	None
PARKWAY	04205	None
PARLIER	25229	Greater Fresno Area
PARSONS	01366	Greater Bay Area
PASO ROBLES	18261	None
PAUL SWEET	08325	Greater Bay Area
PEABODY	06364	None
PEACHTON	10324	Sierra
PEASE	15375	Sierra
PENNGROVE	04347	North Coast/North Bay
PENRYN	15256	Sierra
PENTLAND	25531	None
PEORIA	16378	Stockton
PERRY	18307	None
PETALUMA A	04212	North Coast/North Bay
PETALUMA C	04263	North Coast/North Bay
PHILO	04260	North Coast/North Bay
PIERCY	08391	Greater Bay Area
PIKE CITY	15220	Sierra
PINE GROVE	16375	None
PINECREST	16316	Stockton
PINEDALE	25285	Greater Fresno Area
PIPER BANK	01812	Greater Bay Area
PIT NO 1	10372	None
PIT NO 3	10373	None
PIT NO 5	10132	None
PIT NO 7	10350	None
PITTSBURG	01216	Greater Bay Area
PLACER	15246	Sierra
PLACERVILLE	15308	Sierra
PLAINFIELD	06344	None
PLEASANT GROVE	15244	Sierra
PLEASANT HILL	01330	Greater Bay Area
PLUMAS	15373	Sierra
PLYMOUTH	02268	Greater Bay Area

Substation Description	Substation_CD	Local Capacity Area
POINT ARENA	04338	North Coast/North Bay
POINT MORETTI	08293	Greater Bay Area
POINT PINOLE	01426	Greater Bay Area
PORTOLA	02261	Greater Bay Area
POSO MOUNTAIN	25364	Kern
POTRERO PP (A)	02203	Greater Bay Area
POTTER VALLEY P H	04228	North Coast/North Bay
PRUNEDALE	18296	Greater Bay Area
PUEBLO	04329	North Coast/North Bay
PURISIMA	18297	None
PUTAH CREEK	06368	None
RACETRACK	16376	Stockton
RADUM	01315	Greater Bay Area
RAINBOW	25444	Greater Fresno Area
RALSTON	02414	Greater Bay Area
RANCHERS COTTON	25480	Greater Fresno Area
RANDOLPH	02259	Greater Bay Area
RAWSON	10353	None
RED BLUFF	10354	None
REDBUD	04319	North Coast/North Bay
REDWOOD CITY	02416	Greater Bay Area
REEDLEY	25234	Greater Fresno Area
RENFRO	25457	None
RESEARCH	01469	Greater Bay Area
RESERVATION ROAD	18273	Greater Bay Area
RESERVE OIL	25418	Greater Fresno Area
RICE	06283	None
RICHMOND Q	01252	Greater Bay Area
RICHMOND R	01347	Greater Bay Area
RIDGE	01284	Greater Bay Area
RINCON	04332	North Coast/North Bay
RIO BRAVO	25286	None
RIO DEL MAR	08326	Greater Bay Area
RIO DELL	19225	Humboldt
RIPON	16380	Stockton
RISING RIVER	10355	None
RIVER OAKS	08234	Greater Bay Area
RIVER ROCK	25525	Greater Fresno Area
RIVERBANK	16319	Stockton
ROB ROY	08369	Greater Bay Area
ROBLES	01358	Greater Bay Area
ROCKLIN	15206	Sierra
ROLAND	08375	Greater Bay Area
ROSEDALE	25476	Kern
ROSSMOOR	01416	Greater Bay Area
ROUGH AND READY ISLA	16308	Stockton
RUSS RANCH	19247	Humboldt
RUSSELL	01331	Greater Bay Area
SALINAS	18201	Greater Bay Area

Substation Description	Substation_CD	Local Capacity Area
SALMON CREEK	04316	North Coast/North Bay
SALT SPRINGS	16369	None
SAN ARDO	18219	None
SAN BENITO	18274	Greater Bay Area
SAN BERNARD	25319	None
SAN BRUNO	02270	Greater Bay Area
SAN CARLOS	02418	Greater Bay Area
SAN JOAQUIN	25236	Greater Fresno Area
SAN JOAQUIN #2	25252	Greater Fresno Area
SAN JOAQUIN #3	25253	Greater Fresno Area
SAN JOSE A	08225	Greater Bay Area
SAN JOSE B	08226	Greater Bay Area
SAN JUSTO	18318	Greater Bay Area
SAN LEANDRO U	01311	Greater Bay Area
SAN LORENZO	01346	Greater Bay Area
SAN LUIS OBISPO	18263	None
SAN MATEO	02419	Greater Bay Area
SAN MIGUEL	18266	None
SAN PABLO	01437	Greater Bay Area
SAN RAFAEL	04201	North Coast/North Bay
SAN RAMON	01423	Greater Bay Area
SAND CREEK	25460	Greater Fresno Area
SANGER	25235	Greater Fresno Area
SANTA MARIA	18267	None
SANTA NELLA	25405	Greater Fresno Area
SANTA RITA	25354	Greater Fresno Area
SANTA ROSA A	04215	North Coast/North Bay
SANTA YNEZ	18272	None
SARANAP	01356	Greater Bay Area
SARATOGA	08337	Greater Bay Area
SAUSALITO	04249	North Coast/North Bay
SCE MCFARLAND	25811	Kern
SCE REFUGIO	18807	None
SCE TEHACHAPI	25813	None
SCE TEJON TIE	25819	None
SCHINDLER	25289	Greater Fresno Area
SEACLIFF	08350	Greater Bay Area
SEMITROPIC	25290	None
SERRAMONTE	02286	Greater Bay Area
SF E	02207	Greater Bay Area
SF G	02209	Greater Bay Area
SF H	02210	Greater Bay Area
SF J	02222	Greater Bay Area
SF K	02213	Greater Bay Area
SF L	02226	Greater Bay Area
SF M	02227	Greater Bay Area
SF N	02228	Greater Bay Area
SHADY GLEN	15243	Sierra
SHAFTER	25365	None

Substation Description	Substation_CD	Local Capacity Area
SHARON	25533	Greater Fresno Area
SHEPHERD	25206	Greater Fresno Area
SHINGLE SPRINGS	15365	Sierra
SHORE ACRES BANK	01810	Greater Bay Area
SIERRA CITY GEN	15801	Sierra
SIGNETICS	08379	Greater Bay Area
SILVER	02267	Greater Bay Area
SILVERADO	04343	North Coast/North Bay
SISQUOC	18281	None
SKAGGS ISLAND	04334	North Coast/North Bay
SMARTVILLE	15379	Sierra
SMYRNA	25355	None
SNEATH LANE	02272	Greater Bay Area
SO. CAL. EDISON	25888	Greater Fresno Area
SO. CAL. EDISON #2	25885	Greater Fresno Area
SO. CAL. EDISON #3	25886	Greater Fresno Area
SOBRANTE	01467	Greater Bay Area
SOLANO	01314	Greater Bay Area
SOLEDAD	18205	Greater Bay Area
SONOMA	04272	North Coast/North Bay
SOQUEL	08330	Greater Bay Area
SOTO	01326	Greater Bay Area
SPANISH CREEK	10310	None
SPANSION	08385	Greater Bay Area
SPAULDING	15225	Sierra
SPENCE	18220	Greater Bay Area
SPRING GAP	16283	Stockton
SPRUCE	01334	Greater Bay Area
STAFFORD	04320	North Coast/North Bay
STAGG	16242	None
STANISLAUS	16282	Stockton
STELLING	08348	Greater Bay Area
STILLWATER	10356	None
STOCKDALE	25407	Kern
STOCKTON A	16237	Stockton
STOCKTON ACRES	16322	Stockton
STONE	08370	Greater Bay Area
STONE CORRAL	25292	Greater Fresno Area
STOREY	25461	Greater Fresno Area
STROUD	25366	Greater Fresno Area
STUART	01384	Greater Bay Area
SUISUN	06213	None
SULLIVAN	02285	Greater Bay Area
SUMMIT	15259	Sierra
SUNOL	01424	Greater Bay Area
SWIFT	08339	Greater Bay Area
SYCAMORE CREEK	10297	None
TAFT	25208	None
TAMARACK	15229	Sierra

Substation Description	Substation_CD	Local Capacity Area
TAR FLAT	16324	Stockton
TARAVAL	02250	Greater Bay Area
TASSAJARA	01466	Greater Bay Area
TECUYA	25451	None
TEJON	25293	None
TEMBLOR	25255	None
TEMPLETON	18305	None
TERMINOUS	16302	None
TEVIS	25532	Kern
TEXACO EMIDIO	25542	None
TIDEWATER	01465	Greater Bay Area
TIVY VALLEY	25294	Greater Fresno Area
TOCALOMA	04315	North Coast/North Bay
TOKAY	16888	None
TRACY	16288	Stockton
TRES PINOS	18322	Greater Bay Area
TRES VIAS	10325	Sierra
TRIMBLE	08380	Greater Bay Area
TRINIDAD	19223	Humboldt
TUDOR	15371	Sierra
TULARE LAKE	25295	None
TULUCAY	04230	North Coast/North Bay
TUPMAN	25456	None
TWISSELMAN	25440	None
TYLER	10357	None
UKIAH	04277	North Coast/North Bay
UPPER LAKE	04287	North Coast/North Bay
VACA DIXON	06359	None
VACAVILLE	06360	None
VALLEJO B	04245	Greater Bay Area
VALLEJO C	04255	North Coast/North Bay
VALLEY HOME	16298	Stockton
VALLEY VIEW	01434	Greater Bay Area
VASCO	01375	Greater Bay Area
VASONA	08377	Greater Bay Area
VICTOR	16328	Stockton
VIEJO	18285	Greater Bay Area
VIERRA	16270	Stockton
VINA	10358	None
VINEYARD	01450	Greater Bay Area
VIRGINIA	01378	Greater Bay Area
VOLTA	10254	None
WAHTOKE	25453	Greater Fresno Area
WALDO	01335	Greater Bay Area
WALL	01374	Greater Bay Area
WALNUT CREEK	01220	Greater Bay Area
WARD	01298	Greater Bay Area
WASCO	25296	None
WASHINGTON CITY GEN.	15804	Sierra

Substation Description	Substation_CD	Local Capacity Area
WATERLOO	16315	Stockton
WATERSHED	02424	Greater Bay Area
WATSONVILLE	08333	Greater Bay Area
WAYNE	01381	Greater Bay Area
WEBER	16348	Stockton
WEBER	16348	None
WEEDPATCH	25297	None
WEIMAR	15249	Sierra
WELLFIELD	25429	None
WEST FRESNO	25373	Greater Fresno Area
WEST LANE	16362	Stockton
WEST POINT	16320	None
WEST SACRAMENTO	06313	Sierra
WESTLAKE	02260	Greater Bay Area
WESTLEY	16267	Stockton
WESTPARK	25370	Kern
WHEATLAND	15281	Sierra
WHEELER RIDGE	25348	None
WHISMAN	08363	Greater Bay Area
WHITMORE	10360	None
WHITNEY	01324	Greater Bay Area
WILDWOOD	10361	None
WILKINS SLOUGH	06277	None
WILLIAMS	06205	None
WILLITS	04266	North Coast/North Bay
WILLOW CREEK	19217	Humboldt
WILLOW PASS	01391	Greater Bay Area
WILLOWS A	10274	None
WILSON	25430	Greater Fresno Area
WINDSOR	04350	North Coast/North Bay
WINTERS	06332	None
WISE	15227	Sierra
WISHON	25151	Greater Fresno Area
WOLFE	08367	Greater Bay Area
WOOD	01338	Greater Bay Area
WOODACRE	04302	North Coast/North Bay
WOODCHUCK	25491	Greater Fresno Area
WOODLAND	06203	Sierra
WOODSIDE	02425	Greater Bay Area
WOODWARD	25529	Greater Fresno Area
WRIGHT	25464	Greater Fresno Area
WYANDOTTE	10291	Sierra
YOSEMITE	02249	Greater Bay Area
ZACA	18268	None
ZAMORA	06319	Sierra

Confidential Appendix F

Executed 2020 DRAM Purchase Agreements

Appendix G

Confidentiality Declaration and Matrix

**PACIFIC GAS AND ELECTRIC COMPANY
APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY (U39E) FOR
APPROVAL OF DEMAND RESPONSE PROGRAMS, PILOTS AND BUDGETS FOR
PROGRAM YEARS 2018-2022 (A.17-01-012)**

**DECLARATION OF NEDA OREIZY
IN SUPPORT OF ADVICE 5736-E SUBMITTED TO THE
CALIFORNIA PUBLIC UTILITIES COMMISSION**

I, Neda Oreizy, declare:

1. I am presently employed by Pacific Gas and Electric Company (PG&E) and am a Principal Product Manager in the Energy Portfolio Policy and Procurement department, under the Senior Vice President of Energy Policy and Procurement. In this position, I am responsible for PG&E's policy regarding the Demand Response Auction Mechanism (DRAM) at the California Public Utilities Commission ("Commission" or "CPUC") on matters related to Demand Response programs. In carrying out these responsibilities, I have personal knowledge of PG&E's DRAM competitive solicitations, which are the subject of Advice 5736-E.

2. Based on my knowledge and experience, and in accordance with the Decisions 06-06-066, 08-04-023, 14-10-033, and relevant Commission rules, I make this declaration seeking confidential treatment for certain data and information contained in the documents that PG&E provided in Advice 5736-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) and/or D.06-06-066. The matrix also specifies why confidential protection is justified. Further, the data and information: (1) is not already public; and (2) cannot be aggregated, redacted, summarized or otherwise protected in a way that allows partial disclosure. By this reference, I am incorporating into this declaration all of the explanatory text that is pertinent to my testimony in the attached matrix.

I declare under penalty of perjury, under the laws of the State of California, that the foregoing is true and correct. Executed on January 8, 2020, at San Francisco, California.



NEDA OREIZY

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)

**APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY (U39E) FOR APPROVAL OF DEMAND
RESPONSE PROGRAMS, PILOTS AND BUDGETS FOR PROGRAM YEARS 2018-2022 (A.17-01-012)
ADVICE LETTER 5736-E**

January 10, 2020

IDENTIFICATION OF CONFIDENTIAL INFORMATION

Redaction Reference	Category from D.06-06-066, Appendix 1, or Separate Confidentiality Order That Data Corresponds To	Justification for Confidential Treatment	Length of Time Data To Be Kept Confidential
Document: Advice Letter 5736-E			
Confidential Appendix A: DRAM Offers Received and Shortlisted	D.06-06-066, IOU Matrix, Item VIII) A, Bid information; Item VIII) B) Specific quantitative analysis involved in scoring and evaluation of participating bids.	<p>Appendix A provides a spreadsheet of all of the offers received in response to PG&E's 2020 DRAM solicitation, ranked by weighted average net market value per unit. Appendix A also identifies those offers that were selected for the shortlist and contract execution. Specifically, this spreadsheet includes both shortlisted and non-shortlisted offers, their respective monthly quantities, offered price (\$/kW-month), residential versus non-residential status, total number of Rule 24 service accounts per offer, weighted average unit cost (\$/kW), total contract cost, and proposed RA availability by month.</p> <p>The spreadsheet also includes PG&E's confidential internal system and flexible RA price forecasts (\$/kW-month).</p> <p>All of the information contained in RFO bids is confidential for three years after winning bidders have been selected, that is, submitted for CPUC approval, except for information specifically identified as public. Only the total number of projects and MW bid by resource type, and evaluation guidelines are presumed to be public. Appendix A does not contain any information that is identified as public. PG&E has treated all of the information within Appendix A as confidential. The confidentiality of DRAM offer information should be protected pursuant to Item VIII of the IOU matrix.</p>	Three years from January 10, 2020
Confidential Appendix B: Valuation Process Summary	D.06-06-066, IOU Matrix, Item VIII) A, Bid information; Item VIII) B) Specific quantitative analysis involved in scoring and evaluation of participating bids.	<p>Appendix B provides confidential aspects of the valuation, scoring, and selection process. The discussion in Appendix B identifies discrete offers and PG&E's analysis of offer characteristics. This information constitutes information recognized as confidential by Item VIII) B. of the IOU Matrix.</p> <p>All of the information contained in RFO bids is confidential for three years after winning bidders have been selected, that is, submitted for CPUC approval, except for information specifically identified as public. Only the total number of projects and MW bid by resource type, and evaluation guidelines are presumed to be public. The only information contained within Appendix B that is identified as public is the</p>	Three years from January 10, 2020

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)

**APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY (U39E) FOR APPROVAL OF DEMAND
RESPONSE PROGRAMS, PILOTS AND BUDGETS FOR PROGRAM YEARS 2018-2022 (A.17-01-012)**

ADVICE LETTER 5736-E

January 10, 2020

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		description of the types of qualitative criteria and the qualifying capacity assessment requirements, questions from and outreach to bidders, and high-level discussions PG&E had with the IOUs, independent evaluator, and Energy Division. PG&E has treated all of the remaining information within Appendix B as confidential. The confidentiality of DRAM offer information should be protected pursuant to Item VIII of the IOU matrix.	
Confidential Appendix C: DRAM Evaluation Metrics	D.06-06-066, IOU Matrix, Item VIII) A, Bid information; Item VIII) B) Specific quantitative analysis involved in scoring and evaluation of participating bids.	Appendix C provides a quantitative description of the DRAM solicitation in terms of multiple variables, including: <ul style="list-style-type: none">(a) Participation statistics including outreach statistics; the number of aggregators and large individual customers participating in the DRAM and their characteristics (e.g., new DR provider or whether they have experience with PG&E as a DR provider);(b) Discussion of the competitiveness of the solicitation, including an overview of the DRAM market and offers submitted;(c) Winning Bid Information including number of aggregators and large individual customers winning bids in the DRAM; aggregators broken down into new DR provider or whether they have experience with PG&E as a DR provider; distribution of the size of accepted bids by Total Contract Cost (\$); and(d) Benchmark data on RA costs including average cost of RA purchased, current CAISO Capacity Procurement Mechanism (CPM) cost, cost of comparable DR programs. Information about the effectiveness of the DRAM protocol includes: <ul style="list-style-type: none">(e) Participants' initial ability to understand how to bid in the auction as demonstrated by the amount and types of questions raised by bidders, and number of conformance check issues;	Three years from January 10, 2020

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)

**APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY (U39E) FOR APPROVAL OF DEMAND
RESPONSE PROGRAMS, PILOTS AND BUDGETS FOR PROGRAM YEARS 2018-2022 (A.17-01-012)**

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		<p>(f) Participants' familiarity with the CAISO products, performance requirements and markets; and</p> <p>(g) Issues with the evaluation process.</p> <p>The information about the participant responses to the protocol reveals the level of participation in the RFO, which may induce market participants to engage in behavior resulting in supply shortage or higher prices to PG&E. This confidential information is therefore market sensitive and should not be disclosed.</p> <p>The calculations provided in Appendix C utilize confidential offer information and participant behavior as inputs to determine, essentially, the presence of competition in the DRAM market. The discussion of whether there is sufficient competition to protect PG&E's customers from unreasonable prices is market sensitive information that can be protected as confidential under D.06-06-066. In addition, all of the information contained in RFO bids is confidential for three years after winning bidders have been selected, that is, submitted for CPUC approval, except for information specifically identified as public. Only the total number of offers and MW bid by resource type, evaluation guidelines, and the general outreach statistics are presumed to be public, and have already been stated in the advice letter itself. As no additional information is identified as public, PG&E has treated all of the information within Appendix C as confidential. The confidentiality of DRAM offer information should be protected pursuant to Item VIII of the IOU matrix.</p>	
Confidential Appendix D: Independent Evaluator Report of Merrimack Energy Group, Inc.	D.06-06-066, IOU Matrix, Item VIII) A, Bid information; Item VIII) B) Specific quantitative analysis involved	The purpose of the Independent Evaluator ("IE") Report is to determine on the basis of bid information whether PG&E's conduct of the DRAM RFO fulfilled Commission requirements. The IE Report, including its two attachments, relies extensively on confidential information for its analysis and findings, so to provide as much information about the DRAM RFO as possible without divulging market sensitive information, PG&E has redacted confidential bid information and quantitative analysis involved in scoring and evaluating the bids from the IE Report. A public version of the IE report has been filed with the Advice Letter. PG&E has complied with the	Three years from January 10, 2020

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)

**APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY (U39E) FOR APPROVAL OF DEMAND
RESPONSE PROGRAMS, PILOTS AND BUDGETS FOR PROGRAM YEARS 2018-2022 (A.17-01-012)**

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	in scoring and evaluation of participating bids.	requirement to facilitate the public availability of its energy procurement information by masking its confidential data. Accordingly, the confidential version of the IE report should be protected from public disclosure.	
Confidential Appendix F: Executed DRAM Contracts	D.06-06-066, IOU Matrix, Demand Response Programs Item VII) B) Contracts and power purchase agreements between utilities and non-affiliated third parties (except RPS)	<p>Item VII) B) provides that contracts are confidential for three years from the date the contract states deliveries are to begin, or until one year following expiration, whichever comes first. The DRAM Contract delivery terms are June 2020 through December 2020, and would remain confidential through December 2021 under Item VII) B).</p> <p>The DRAM resource is a demand-side aggregation of customer load behavior that did not exist when the IOU Matrix was adopted by D.06-06-066.</p> <p>D.06-06-066, Ordering Paragraph 4, states, “Unless and until we change or repeal General Order (GO) 66-C (or opt to leave it intact upon examination), it shall continue to apply to data not addressed in the Matrix. In the interim, to the extent the Matrix contradicts GO 66-C, the Matrix shall govern.”</p> <p>GO 66-C provides that information encompassed by Section 6252 of the Government Code, such as filed IOU energy procurement information, constitutes a public record that is open to public inspection except for specifically excluded material. It states:</p> <p>2. EXCLUSIONS</p> <p>Public records not open to public inspection include:</p> <p>(2.8) Information obtained in confidence from other than a business regulated by this Commission where the disclosure would be against the public interest. (E.g.: Evidence Code Sec, 1040.)</p> <p>GO 66-C notes that the CPUC may prevent the disclosure of public information if the public interest in confidentiality outweighs the need for disclosure. The Commission superseded GO 66-C with GO 66-D effective January 1, 2018, with limited exception. See, D. 17-09-23, p. 3. Information submitted subject to the requirements of D.06-06-066 may continue to be submitted consistent with the requirements of that decision and</p>	The 2020 DRAM Contracts should be confidential through December 31, 2021.

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)

**APPLICATION OF PACIFIC GAS AND ELECTRIC COMPANY (U39E) FOR APPROVAL OF DEMAND
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		is exempted from the requirements of GO 66-D. Based upon this information, the DRAM contracts should remain confidential for a period of one year after their expiration dates.	

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

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