

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



October 30, 2018

Advice Letter 5096-E/5096-E-A and 3855-G

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: Request for approval of distributed energy resource (DER) procurement for the IDER Utility Regulatory Incentive Mechanism Pilot (Incentive Pilot).

Dear Mr. Jacobson:

Advice Letter 5096-E/5096-E-A and 3855-G are effective as of October 25, 2018 per Resolution # E-4956.

Sincerely,

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

Edward Randolph
Director, Energy Division

May 1, 2018

Advice 5096-E-A

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

Subject: Supplemental: Request for Approval of Distributed Energy Resource (DER) Procurement for the IDER Utility Regulatory Incentive Mechanism Pilot (Incentive Pilot) Pursuant to Resolution E-4889 and D.16-12-036

Purpose

Pursuant to Ordering Paragraph (OP) 4 of Resolution E-4889 and Decision (D.) 16-12-036, Pacific Gas and Electric Company (PG&E) submits this supplemental advice letter requesting the California Public Utilities Commission (Commission or CPUC) approval to procure a distributed energy resource (DER) solution for the IDER Incentive Pilot Candidate Project at the Gonzales Substation (Gonzales, CA) described below.

Background**1. Regulatory Background**

On December 22, 2016, the Commission issued Decision (D.)16-12-036, *Decision Addressing Competitive Solicitation Framework and Utility Regulatory Incentive Pilot*, requiring the participating utilities to implement the Incentive Pilot following the adopted aspects of the Competitive Solicitation Framework.

PG&E has completed the actions required by OPs 10 through OP 13. Specifically, PG&E has completed the following actions required by OP 13:

- PG&E has worked with the Distribution Planning Advisory Group (DPAG) to identify at least one candidate project.
- PG&E's proposed project complements PG&E's Distribution Resources Plan (DRP) Demonstration Project C approved in Rulemaking 14-08-013.
- PG&E has proposed a counting method as described in or as an alternative to the methods in the August 1, 2016 Competitive Solicitation Framework Working

Group Report, and with the attributes listed in OP 3, to ensure the DERs procured are incremental to those forecasted.

- PG&E has worked with the DPAG to finalize the counting method as well as a contingency plan for the candidate project.
- PG&E's has selected a project where the solicited DERs have a reasonable chance of being cost-effective consistent with the lists of valuation components approved in OP 5, and has worked with the DPAG to select applicable valuation components.

On June 16, 2017, PG&E submitted Advice Letter (AL) 5096-E. AL 5096-E complied with the procedural requirements of D.16-12-036, including Step Three requiring PG&E to request Commission approval to procure a DER solution for the candidate project (Rincon Substation) selected pursuant to OP 13 of D.16-12-036. On November 20, 2017, PG&E submitted comments to Draft Resolution E-4889 requesting a delay in further consideration of AL 5096-E, due to the Santa Rosa fire in the North Bay that affected the location of the candidate project.

On December 19, 2017, the CPUC issued Resolution E-4889, directing PG&E to file a supplemental Advice Letter no later than May 1, 2018, providing a detailed explanation of its decision to cancel the Rincon Substation project; a full report on learnings and insights on the project preceding its cancellation; and a proposal to solicit, evaluate and implement a non-wires alternative solution that can defer a distribution capital investment at appropriate locations in accordance with Decision 16-12-036.

This Advice Letter complies with that directive.

2. Detailed Explanation of Decision to Cancel Distribution Deferral Opportunity at Rincon Substation

PG&E's decision to cancel the distribution deferral opportunity at Rincon Substation was the result of changing conditions and customer needs in the Santa Rosa area, and the availability of a lower cost wires alternative to mitigate these needs, that eliminated the potential for DERs to provide a cost-effective solution.

As indicated in PG&E's comments to Draft Resolution E-4889, PG&E initially believed that the direct impact of the October 2017 wildfires on Rincon Substation and associated distribution feeders might compromise the viability of the distribution deferral opportunity. Further study has shown that while the fires did have some effect on load forecasts, other drivers such as new load applications and the introduction of a new, less expensive preferred wires alternative primarily supported the decision to select an alternate location for the IDER Incentive Pilot.

2.1 Impact of Fire on Rincon Substation and Associated Distribution Feeders

The Rincon Substation was physically located in the burn zone, and required testing and assessment of possible internal damage. PG&E's maintenance assessment concluded that there was no material damage to Rincon Substation.

PG&E conducted a detailed study to determine the impact that fire damage and destruction of structures on the Rincon electric distribution feeders had on load at the substation. Using California Department of Forestry and Fire Protection's (CAL FIRE) "Sonoma County - Structure Status Information" online map, PG&E observed that approximately 70 structures served by Rincon Substation, experienced property burn damage or destruction. The effect of removing these structures from the Rincon feeders is a reduction in peak substation load of approximately 1 megawatt (MW), though the long-term impact may be significantly less as some of these structures are rebuilt.

2.2 2017 Distribution Planning Study Update

As described in Advice Letter 5096-E, in January 2018 PG&E completed its 2017 distribution planning study, incorporating the observed 2017 summer loading at Rincon Substation, to refine the estimated amount of capacity needed to defer the Rincon Substation Project. Due to unusually hot conditions, the observed peak load at Rincon Substation increased by approximately 5 MWs from 2016 to 2017.

In addition, in fall 2017, PG&E received two large commercial customer applications seeking service interconnections to PG&E's Santa Rosa Substation, which created a need for additional capacity for several Santa Rosa distribution feeders starting in 2019.

Incorporating the effect of the load reduction due to wildfire damage, the significant increase in observed peak load in 2017, and the new customer applications, the 2017 distribution planning study results identified needs occurring at Rincon and Santa Rosa Substations in 2019, earlier than had previously been expected and before DERs procured through the IDER Incentive Pilot would be operational.

2.3 Lower Cost Wires Alternative

To address the 2019 need forecast at Santa Rosa Substation due to the new large load applications, PG&E initiated a program to pilot the use of a higher-rated conductor to reconductor one feeder at the Santa Rosa Substation. Upon further analysis of the load forecasts in the surrounding Monroe and Rincon load pockets, PG&E determined that expanding the program to reconductor additional feeders at Santa Rosa Substation and performing a series of load transfers would address the capacity needs in these load pockets by 2019. Furthermore, the cost of this plan is approximately one third the cost of the previous preferred alternative of replacing Rincon Substation Bank No. 1 or 2. Note that while this reconductoring and load transfer project will mitigate the forecasted

overloading of Rincon Substation Banks No. 1 and 2, these banks are projected to remain heavily loaded, and PG&E will continue to monitor and evaluate the area as load forecasts are updated.

In conclusion, the decision to cancel the distribution deferral opportunity at Rincon Substation was a result of changes in the load forecast at Rincon Substation and surrounding areas that moved the timing of the forecasted capacity needs up to 2019, combined with the identification of a lower cost wires alternative that could be quickly implemented to address these needs. These changes negatively impacted the potential for the DER solicitation to meet the need at Rincon Substation or to have a reasonable chance of being cost effective.

3. Learnings and Insights on the Project Preceding its Cancellation

Since the decision to change the location of the IDER Incentive Pilot from Rincon Substation occurred prior to launching the competitive solicitation, PG&E was unable to derive any learnings or insights on the competitive solicitation of DERs, the ability of DERs to meet the distribution need identified, or the application of the incentive mechanism. Please refer to PG&E's Advice Letter 5259-E, filed on March 26, 2018, for a discussion of lessons learned from the competitive solicitation of DERs for the deferral of distribution investments in the context of DRP Demonstration Project C.

Furthermore, general learnings and insights gathered from progress to-date on IDER Incentive Pilots across all Californian IOUs are included in the *Energy Division Staff Proposal on a Distribution Investment Deferral Framework (Staff Proposal)*, issued on June 30, 2017 and referenced in the *Decision on Track 3 Issues: DER Growth Scenarios and the Distribution Investment Deferral Framework (DIDF)* (D.18-02-004) issued on February 15, 2018. As described in these filings, the adoption of a Competitive Solicitation Framework (CSF) and establishment of an interim Distribution Planning Advisory Group (DPAG) has provided the IOUs, including PG&E, tangible learnings on the deferral screening criteria and prioritization metrics. Additionally, the IDER Incentive Pilot has highlighted the limitation of needing to forecast distribution projects at least three years in advance to be deferred by DERs sourced by a solicitation, emphasizing the importance of streamlining the solicitation process to allow selection of projects with nearer term needs. PG&E discussed solicitation streamlining suggestions in recently filed comments on the *Amended Scoping Memo of Assigned Commissioner and Joint Ruling with Administrative Law Judge* dated February 12, 2018.¹

¹ See *Joint Comments of Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company on Amended Scoping Memo of Assigned Commissioner and Joint Ruling with Administrative Law Judge* filed in R.14-10-003 (March 29, 2018).

PG&E's development of the Rincon Substation distribution deferral opportunity, and subsequent decision to cancel this project, reinforce these general learnings. This experience highlights the uncertainty in load forecasting, the flexibility that distribution planners have in addressing changing needs on the distribution system through wires solutions, and the challenges that these two factors pose for identifying projects and conducting a solicitation of DERs years in advance of the projected need. Streamlining the solicitation process could address some of these challenges.

The Rincon project demonstrates the importance of certainty in project prioritization, and the challenge posed by the inherent uncertainty of load forecasting. As described in AL 5096-E, PG&E identified certainty in timing and magnitude of distribution capacity need as a key metric in prioritizing projects for the IDER Incentive Pilot. The Rincon location scored highly for certainty relative to other potential locations, due to the diverse mix of residential and commercial load and distributed load growth.

Yet as Section 2 herein describes, the load forecast at this location changed significantly from 2017 to 2018, due to the combination of an unusually hot summer in 2017 and the effect of the October 2017 wildfires, impacting the timing and magnitude of the forecasted need at Rincon. This experience reinforces that certainty is indeed a key metric in identifying suitable deferral projects, however it also highlights the inherent uncertainty in load forecasts on all distribution circuits.

A second key insight is the complexity and fluidity of distribution planning. In the case of Rincon, distribution planners must consider both the direct impact of changes in the load forecast at the Rincon Substation, as well as the indirect impact of changes in surrounding load pockets, when determining their investment plan. The addition of new large customer applications on the nearby Santa Rosa Substation had no direct impact on the load at the Rincon Substation, however these created a near-term need that could be most effectively solved by utilizing a new reconducting approach and transferring load from Rincon to Santa Rosa. PG&E develops distribution investment plans based on projected needs, however these plans are evaluated and revised as the needs and tools available to meet these needs change.

Finally, this project highlights the challenges that inherent load forecasting uncertainty and fluidity of distribution planning pose for soliciting DERs for deferral of wires investments. The timing and magnitude of a forecasted capacity deficiency, as well as the scope and cost of the preferred wires alternative, are liable to change from year to year as system conditions and customer needs evolve. This uncertainty introduces risks to DERs' ability to fully meet the deficiency or to realize the projected deferral value.

4. Proposal to Solicit Candidate DER Distribution Deferral Project

PG&E has identified an alternative location for an IDER Incentive Pilot, to defer the replacement of a transformer bank at the Gonzales Substation in Monterey County. See Attachment A for details about the project location and load.

In addition, PG&E is studying the feasibility of at least one additional IDER Incentive Pilot for resiliency (microgrid) services. PG&E is analyzing possible project locations, and assessing the potential for DERs to provide a cost-effective solution. If a potentially viable project is identified, PG&E will submit a separate Advice Letter within 180 days including the project location, draft Protocol, and solicitation timeline.

4.1 Distribution Service Needed

The local distribution services PG&E proposes to solicit at the Gonzales Substation will be distribution capacity. Based on distribution planning studies approximately 2 MW of additional distribution capacity will be needed at the Gonzales Substation potentially as early as summer 2021. The additional substation capacity will be needed during the months of June through September (inclusive). Demand reductions are needed on Gonzales Bank No. 3 on weekdays between the hours of 8:00 AM and 12:00 PM (inclusive), and 5:00 PM and 9:00 PM (inclusive). Demand reductions are needed on Gonzales Bank No. 4 on both weekdays and weekend between the hours of 8:00 AM to 4:00 PM (inclusive). Dispatchable resources may be called on a day-ahead basis up to 6 times a month for not more than 3 consecutive days and for not more than 12 days total during the summer period.²

Minimum distribution capacity bids considered will be 250 kW to be bid in 250 kW increments with maximum bids considered up to 1,500 kW. Behind the meter (BTM) resources must effectively and verifiably reduce distribution system load of retail customers taking service from the Gonzales Substation during the months and hours described above and in the table below. In front of meter (IFM) resources must effectively and verifiably increase in-area generation during the months and hours described by interconnecting in such a way that they provide the distribution capacity services needed. The additional distribution capacity needs to be available on or before June 2021 and must be maintained at least through end of September 2025.

² PG&E may revise the estimated amount of capacity needed to defer the Gonzales Substation project based on the results of 2018 distribution planning study updates incorporating observed 2018 summer loading at Gonzales Substation.

Distribution Services Needed		
Substation Bank	Gonzales Bank No. 3	Gonzales Bank No. 4
Type of Service	Distribution Capacity	Distribution Capacity
Months	June through September	June through September
Day Types	Weekdays	Weekdays and Weekends
Hours	8:00 AM to 12:00 PM, 5:00 PM to 9:00 PM	8:00 AM to 4:00 PM
Number of Calls	Up to 12 Calls per Year	Up to 12 Calls per Year
Call Notice Time	Day Ahead by 8:00 A.M.	Day Ahead by 8:00 A.M.
Minimum Operation Hours	4 consecutive hours per day	4 consecutive hours per day
Operating Blocks	8:00 AM to 12:00 PM 5:00 PM to 9:00 PM	8:00 AM – 12:00 PM 12:00 PM -4:00 PM
Minimum Bid Size	250 kW	250 kW
Maximum Bid Size	500 kW	1,500 kW
Minimum Bid Increment	250 kW	250 kW
Eligible Interconnection Point	Gonzales 1101, 1102	Gonzales 1103, 1104

Competitive Solicitation Framework

4.2 RFO Schedule

PG&E's RFO schedule is linked to final approval of the Solicitation Process. PG&E plans to conduct the RFO pursuant to schedule in the RFO Protocol, assuming CPUC approval has been received. To the extent necessary to ensure a successful Pilot and/or successful negotiation and execution of a contract with a DER supplier or suppliers to meet the deferral needs, PG&E reserves the right to request an adjustment to the schedule.

4.3 Terms and Conditions

Key Contract Term	Description
Delivery Term	Seller must deliver distribution capacity through September 30, 2025 and comply with Restricted Period through October 30, 2025.
Initial Energy Delivery Date	June. Seller must be online by April of the year when deliveries begin to allow for performance testing.
Price	Based on Seller Offer. Payment includes a fixed capacity price in \$/kW-month, and may include a \$/kWh price to be paid upon dispatch.

Operating Parameters	<p>Participants must provide distribution capacity at these times:</p> <p>Gonzales Bank 3: 8:00 AM through 12:00 PM or 5:00 PM through 9:00 PM, Monday through Friday during the months of June through September.</p> <p>Gonzales Bank 4: As instructed for 4 hours between 8:00 AM and 4:00 PM Monday through Sunday during the months of June through September</p>
Restricted Period	<p>Gonzales Bank 3: Depending on the mix of resources selected, there may be restrictions on adding load during 6:00 AM-9:00 PM Monday through Friday during the months of April-October.</p> <p>Gonzales Bank 4: Depending on the mix of resources selected, there may be restrictions on adding load during 7:00 AM-10:00 PM Monday through Sunday during the months of April-October.</p>
Scheduling	<p>For projects that are capable of responding to a dispatch instruction, Buyer may dispatch the Project on a day-ahead basis by 8:00 a.m. the day prior the delivery day. Seller will install and maintain all equipment and communications systems necessary to respond to dispatch instructions at its own cost.</p>
Project Site and Customers	<p>Seller is solely responsible for acquiring customers and executing all necessary agreements to ensure delivery of distribution services. At any time during the delivery term, Seller may modify its customer portfolio provided that such change is done in accordance with safety provisions and modified customer portfolio reliably provides the distribution services contracted for. Seller must include in bid documentation how changes in customer portfolio will be communicated to and verified by Buyer.</p>
Compensation	<p>Seller to be paid a \$/kW-month capacity payment based on delivered capacity. Payment may also include a \$/kWh price when dispatched.</p> <p>If Seller fails to deliver at least 90% of contract capacity when scheduled, \$/kW-month payment will be reduced. (See term sheet)</p>

<p>Measurement and Verification</p>	<p>The amount of Distribution Services the Project delivers will be measured based on the Project's technology.</p> <p>Energy storage: revenue-quality meter</p> <p>Distributed generation: revenue-quality meter</p> <p>Demand response: CAISO baseline methodologies, based on revenue-quality customer interval meters</p> <p>Energy efficiency or permanent load shift: Agreed upon methodology that incorporates baseline metering</p> <p>Seller may propose an alternative measurement and verification methodology in their bid.</p>
<p>Performance Testing</p>	<p>Prior to the Initial Energy Delivery Date, seller will perform an initial performance test. After the IDD, Buyer will have the right to test no more than once per calendar year. If Seller fails initial test Seller may request a re-test. If Seller fails the re-test that will be grounds for contract termination.</p>
<p>Seller Performance Assurance</p>	<p>Project Development Security. (i) \$40/kW for new Projects or (ii) \$25/kW for existing Projects.</p> <p>Delivery Term Security equal to \$40/kW</p>
<p>CPUC Approval</p>	<p>If CPUC Approval has not occurred on or before 180 days from the date on which Buyer files the agreement with the CPUC seeking CPUC Approval, then either Party may terminate the agreement</p>

Events of Default	<p>Customary provisions in a PG&E contract, and will also include:</p> <p>Failure to meet a critical milestone</p> <p>Failure to meet IDD</p> <p>Monthly distribution services delivered for any calendar year averages less than 75%</p> <p>Performance test shows project provides less than 85% of contract capacity</p>
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4.4 Double Counting/Double Payment; Bid Valuation; Independent Evaluator; Contingency Plan

In implementing the DER distribution deferral procurement proposed in this advice filing, PG&E will comply with the guidance provided in Resolution E-4889 on common issues relating to double counting/double payment; bid valuation; independent evaluator; and contingency planning.

5. Recording and Recovery of Procurement Costs in Integrated Distributed Energy Resources Account (IDERA)

Pursuant to OPs 21, 22 and 23 of D.16-12-036, PG&E requests approval of its forecast of expected incremental administrative costs for its IDER Incentive Pilot, including for the solicitation process and other non-procurement costs. Pursuant to PG&E's previously filed and approved Advice Letter 5017-E, the forecast costs approved in this advice filing are pre-approved for recording and recovery and will be reviewed by the Commission in PG&E's next GRC. Any administrative costs exceeding the forecast approved in this advice letter are subject to a reasonableness review. The annual distributed energy resources contract costs, having been pre-approved, will be recovered over the life of the contract.

PG&E's forecast for administrative costs associated with the IDER pilot project is included in a confidential attachment to this advice letter (see Attachment C). The breakdown of this estimate and a preliminary estimate of the cost-effectiveness cap for the solicited distributed energy resources are also presented in the confidential attachment to this advice letter.³ The calculations of these estimates respond to the directive on page 62 of D.16-12-036 that states: *The Utilities shall present an estimation of the administrative costs [...] required in Step Three of the Incentive Pilot. This*

³ IDER Decision 16-12-036, p.62

estimate and a cost-effectiveness cap for the solicited distributed energy resources projects should also be presented in a confidential attachment to the advice letter.

PG&E may revise the initial cost-effectiveness cap shown in the confidential attachment based on additional information that becomes available between now and contract execution. Any revisions to the preliminary cost-effectiveness cap calculation shown in the attachment will be included in the Tier 2 Advice Letter requesting Commission approval of executed contracts for the IDER Incentive Pilot.

6. Commission Action Requested

Pursuant to Resolution E-4889 and D. 16-12-036, PG&E requests that the Commission approve procurement of a potential cost-effective DER solution, including using the RFO Protocols (see Attachments B1-B5), for its Gonzales Substation project.

Tariff Revisions

The filing would not increase any current rate or charge, cause the withdrawal of service, or conflict with any rate schedule or rule.

Protests

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, facsimile or E-mail, no later than May 21, 2018, which is 20 days after the date of this filing. Protests must be submitted to:

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

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

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

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

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

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

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

Effective Date

PG&E requests that this Tier 2 supplemental compliance advice filing become effective upon Commission approval.

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 R.14-10-003. 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 filings can also be accessed electronically at: <http://www.pge.com/tariffs/>.

/s/

Erik Jacobson
Director, Regulatory Relations

Attachments

- Attachment A – Gonzales Substation – Candidate DER Distribution Deferral Project Selection
- Attachment B1 - PG&E DRAFT RFO Protocol

- Attachment B2 - Appendix B1 – B8 - Integrated Distributed Energy Resources Incentive
- Pilot RFO
- Attachment B3 - Appendix C - Confidentiality Agreement Draft
- Attachment B4 - Appendix D - Term Sheet for IDER Incentive Pilot
- Attachment B5 - Appendix E – Finance Information
- Attachment C - Forecast of Expected Incremental Administrative Costs and Preliminary Estimate of Cost Effectiveness Cap **(Confidential)**
- Attachment D – Confidentiality Declaration

cc:

- Service List R.14-10-003
- Chari Worster, Senior Analyst, California Public Utilities Commission, chari.worster@cpuc.ca.gov
- Margie Gardner, California Efficiency + Demand Management Council, policy@efficiencycouncil.org
- Daniel W. Douglass, A.P.C., Douglass & Liddell, douglass@energyattorney.com
- John Anderson, Director of Energy Markets, OhmConnect, Inc., john@ohmconnect.com
- Shelly Lyser, Office of Ratepayer Advocates, shelly.lyser@cpuc.ca.gov
- Jason B. Keyes, Keyes & Fox LLP, jkeyes@kfwlaw.com (Tesla)

CALIFORNIA PUBLIC UTILITIES COMMISSION

ADVICE LETTER FILING 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
 PLC HEAT WATER

Contact Person: Yvonne Yang

Phone #: (415) 973-2094

E-mail: Yvonne.Yang@pge.com and PGETariffs@pge.com

EXPLANATION OF UTILITY TYPE

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

(Date Filed/ Received Stamp by CPUC)

Advice Letter (AL) #: **5096-E-A**

Tier: 2

Subject of AL: **Supplemental: Request for Approval of Distributed Energy Resource (DER) Procurement for the IDER Utility Regulatory Incentive Mechanism Pilot (Incentive Pilot) Pursuant to Resolution E-4889 and D.16-12-036**

Keywords (choose from CPUC listing): Compliance

AL filing type: Monthly Quarterly Annual One-Time Other _____

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #: D. 16-12-036 & Resolution E-4889

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: _____

Is AL requesting confidential treatment? If so, what information is the utility seeking confidential treatment for: Yes, See Confidentiality Declaration

Confidential information will be made available to those who have executed a nondisclosure agreement: Yes

Name(s) and contact information of the person(s) who will provide the nondisclosure agreement and access to the confidential information: Igor Grinberg, (415) 973-8550, IXG8@pge.com

Resolution Required? Yes No

Requested effective date: Upon Commission approval

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 proposed: N/A

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

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

California Public Utilities Commission

Energy Division

EDTariffUnit

505 Van Ness Ave., 4th Flr.

San Francisco, CA 94102

E-mail: EDTariffUnit@cpuc.ca.gov

Pacific Gas and Electric Company

Attn: Erik Jacobson

Director, Regulatory Relations

c/o Megan Lawson

77 Beale Street, Mail Code B13U

P.O. Box 770000

San Francisco, CA 94177

E-mail: PGETariffs@pge.com

Attachment A

Gonzales Substation – Candidate DER Distribution Deferral Project Selection



IDER Incentive Pilot: Candidate DER Distribution Deferral Project

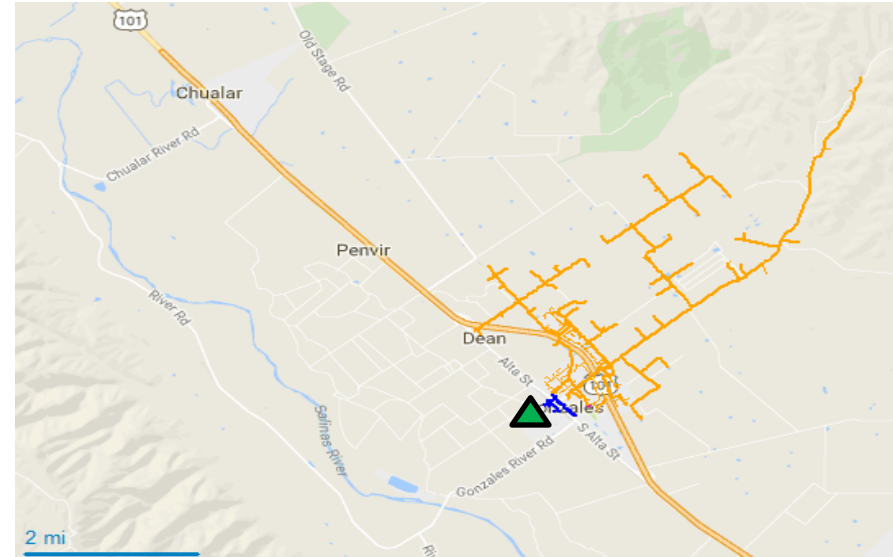
Gonzales Substation Bank No. 3 and 4

May 1, 2018



Gonzales Bank 3 Location Overview

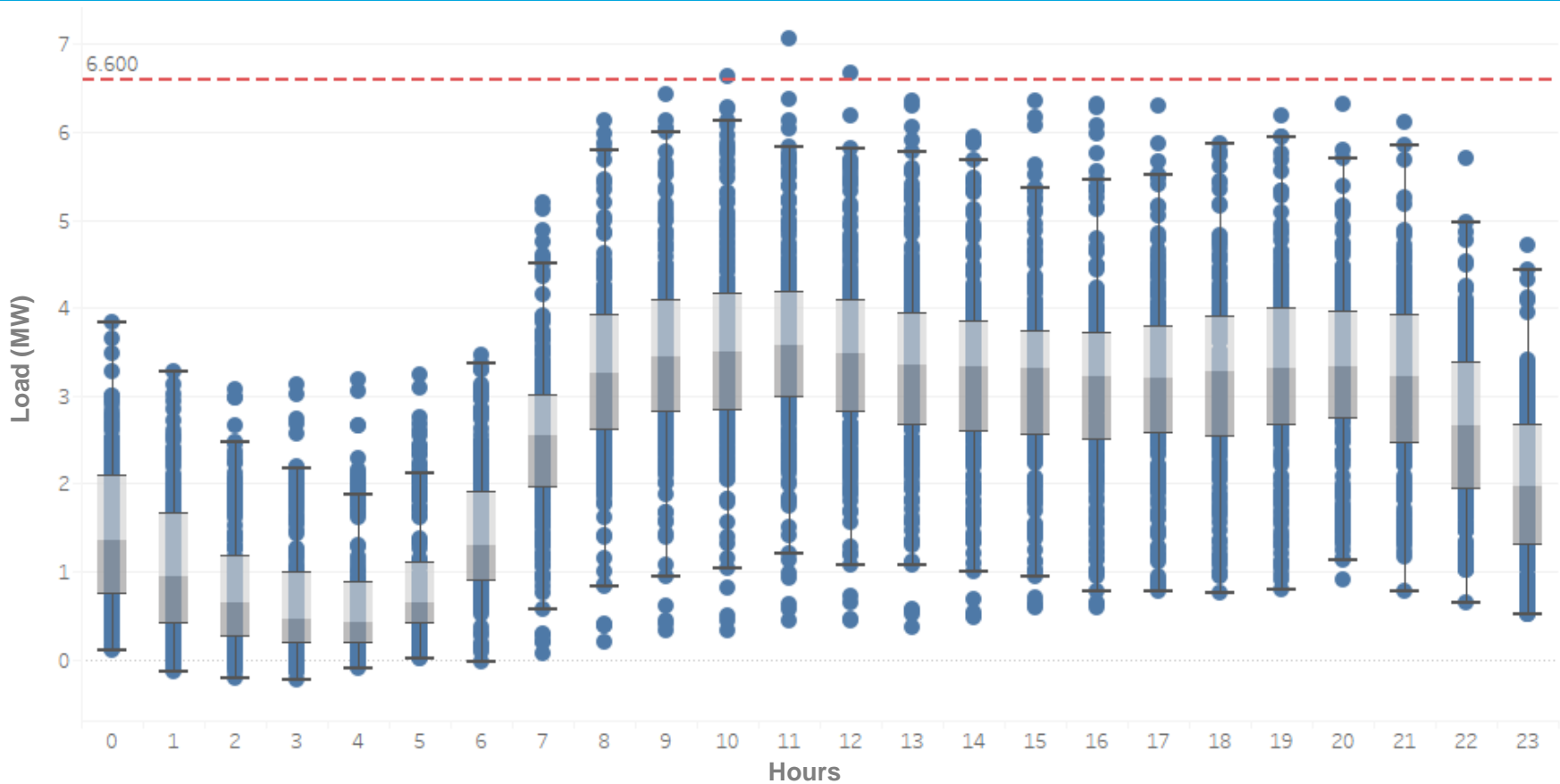
- Location: Gonzales Substation, Monterey County
- Summer peaking area
- Electrical Service:
 - 3-phase, 6.67 MVA bank with two 12kV feeders (Gonzalez 1101 and 1102)
 - Normal operating capacity of bank: 6.6 MW
- 1,886 electric service points. Customer base:
 - Residential (1,665 service points)
 - Commercial and Industrial (166 service points)
 - Agricultural (56 service points)



Current (2017)			Forecast					
Observed Peak Load	Installed DERs		Year	Peak Load (1 in 10 Year)	Incremental DER Growth			
	PV	ES			PV	ES	EE	DR
5.7 MW	2.0 MW	0 MW	2021	6.4 MW	0.25 MW	0 MW	0.07 MW	0.02 MW
			2025	7.1 MW	0.52 MW	0 MW	0.14 MW	0.02 MW



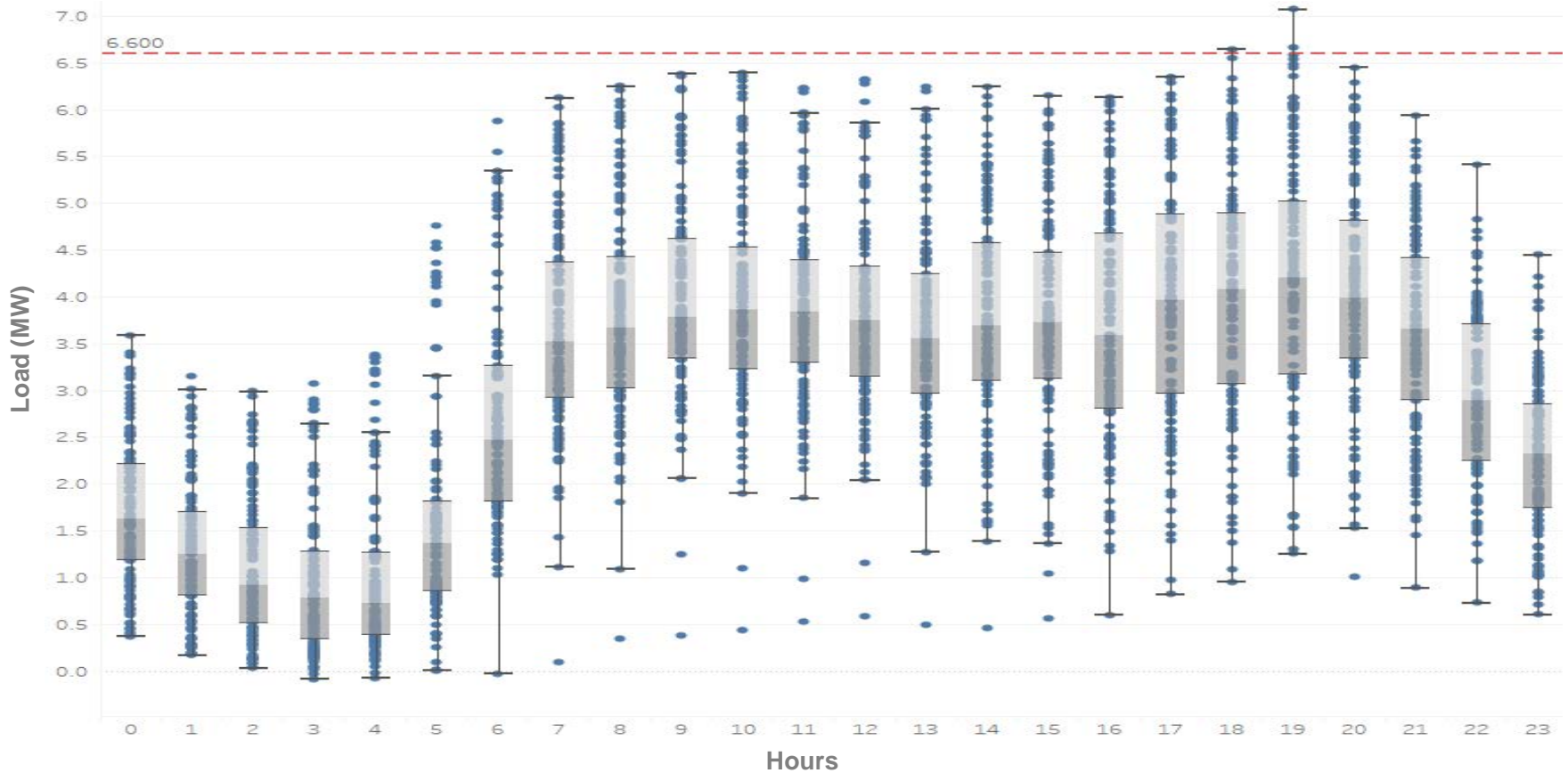
Distribution Capacity Need: Gonzales Bank No. 3 Loading Forecast: Morning Peak



Distribution Capacity Need (MW)	0.5
Months of to Schedule DERs	Jun - Sep
Duration of Need (Hours)	8 AM – 12 PM
Number of Need Days in Year	12



Distribution Capacity Need: Gonzales Bank No. 3 Loading Forecast: Evening Peak

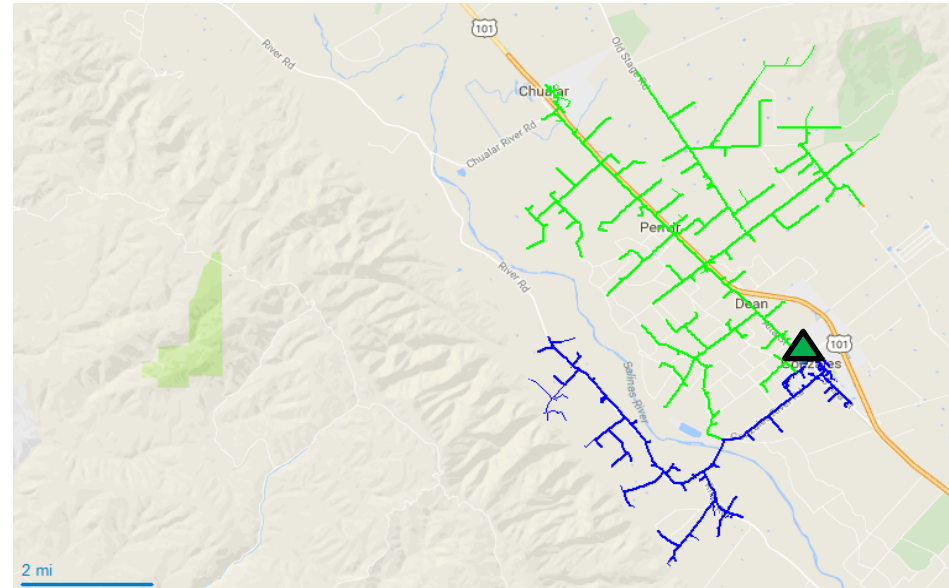


Distribution Capacity Need (MW)	0.5
Months of to Schedule DERs	Jun - Sep
Duration of Need (Hours)	5 PM – 9 PM
Number of Need Days in Year	12



Gonzales Bank 4 Location Overview

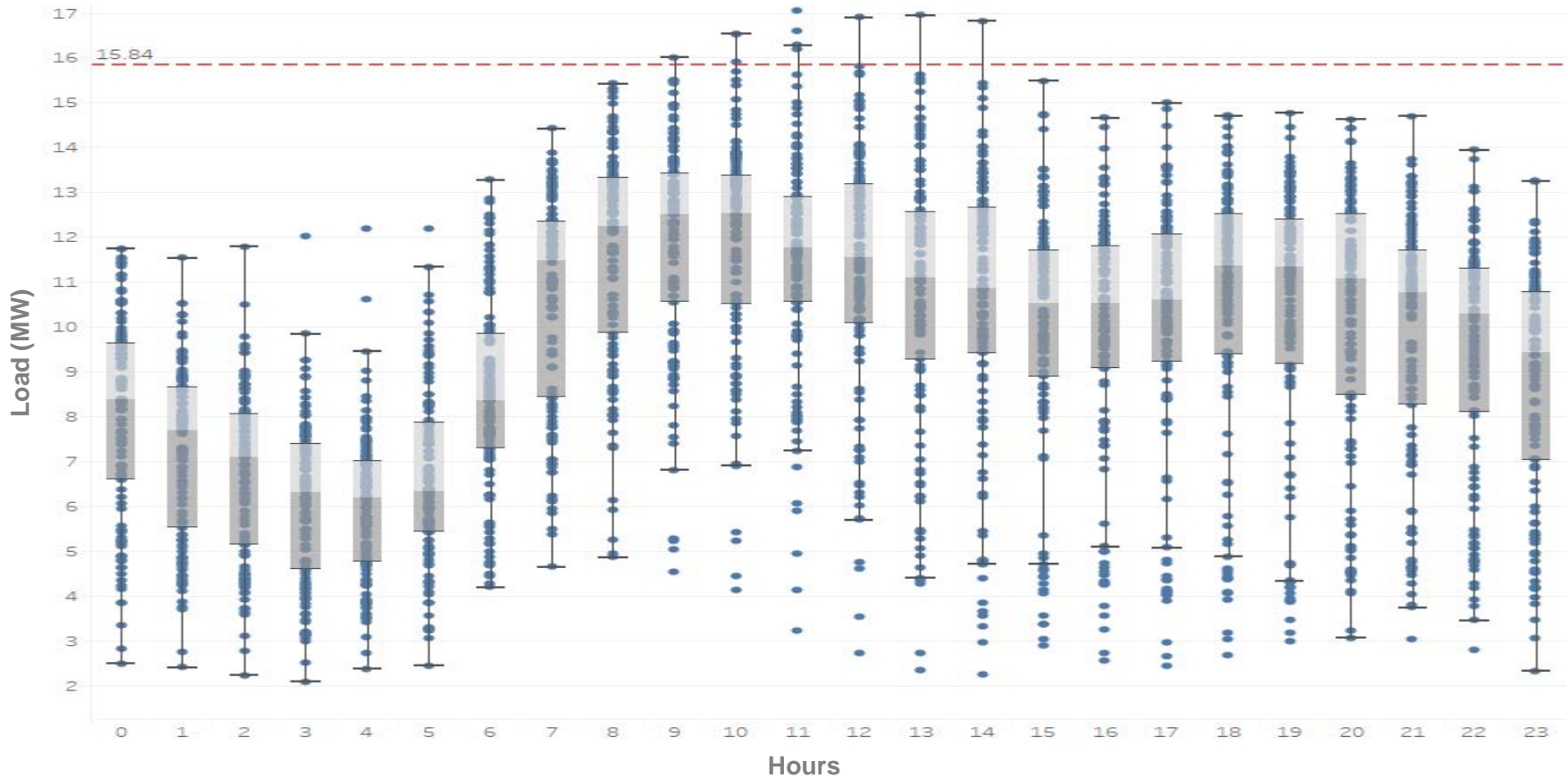
- Location: Gonzales Substation, Monterey County
- Summer peaking area
- Electrical Service:
 - 3-phase, 16 MVA bank with two 12kV feeders (Gonzalez 1103 and 1104)
 - Normal operating capacity of bank: 15.84 MW
- 1,207 electric service points. Customer base:
 - Residential (829 service points)
 - Commercial and Industrial (173 service points)
 - Agricultural (205 service points)



Current (2017)			Forecast					
Observed Peak Load	Installed DERs		Year	Peak Load (1 in 10 Year)	Incremental DER Growth			
	PV	ES			PV	ES	EE	DR
14.7 MW	1.3 MW	0 MW	2021	17.1 MW	0.36 MW	0 MW	0.15 MW	0.03 MW
			2025	16.8 MW	0.74 MW	0 MW	0.31 MW	0.03 MW



Distribution Capacity Need: Gonzales Bank No. 4 Loading Forecast



Distribution Capacity Need (MW)	1.5
Months of to Schedule DERs	Jun - Sep
Duration of Need (Hours)	8 AM – 4 PM
Number of Need Days in Year	12

Attachment B1

PG&E DRAFT RFO Protocol



**Integrated Distributed Energy Resources
Incentive Pilot
Request for Offers**

DRAFT Solicitation Protocol

2018

**Integrated Distributed Energy Resources Incentive Pilot
Request for Offers**

DRAFT

May 1, 2018

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I. Introduction and Overview

I.A. Overview

Pacific Gas and Electric Company (“PG&E”) is issuing this 2018 Integrated Distributed Energy Resources (IDER) Incentive Pilot Request For Offers (“RFO” or “Solicitation”) to demonstrate the efficacy of distributed energy resources (DERs) provision of cost-effective electric distribution services, as required by California Public Utilities Commission (“CPUC”) Decision (“D.”) 16-12-036¹ and Resolution E-4889.

This Solicitation Protocol sets forth the terms and conditions by which PG&E will seek Offers. An entity submitting an Offer in response to this RFO, hereinafter a “Participant,” agrees to be bound by all the terms, conditions and other provisions of this RFO as contained in this Solicitation Protocol and any changes or supplements to it that may be issued by PG&E. The obligations of the Participant are further described in Section VII.A, Agreement by Participant.

I.B. IDER Incentive Pilot RFO Website and Communication

PG&E has established a website at www.pge.com/rfo/IDER, where Participants may access and download all RFO documents, announcements and Q&As that are posted.

To ensure the accuracy and consistency of information provided to all Participants, PG&E prefers that Participants communicate by e-mail to both IDERRFO@pge.com, and to the Independent Evaluator (“IE”), . With respect to a matter of general interest raised by any Participant, PG&E may, without reference to the inquiring Participant, post the question and PG&E’s response on PG&E’s website. PG&E will attempt to respond to all inquiries, but may decline to respond to any particular inquiry.

All correspondence to and from a Participant will be monitored by the IE, Alan Taylor, who the CPUC selected to oversee this Solicitation. The IE is an independent, third-party evaluator who is required by the CPUC to monitor and evaluate certain competitive solicitations.

I.C. Schedule Overview

The expected schedule for the RFO is listed in Table I.2 below.

Table I.1: PG&E IDER Solicitation Schedule

Ongoing:	Participants are invited to register online to receive notices from PG&E regarding the RFO at www.pge.com/rfo
June 13, 2018	PG&E issues RFO

¹ Decision Addressing Competitive Solicitation Framework and Utility Regulatory Incentive Pilot D, D.16-12-036.

June 20, 2018	Participants' Webinar
July 9, 2018	Deadline for PG&E to receive Offers
July 10, 2018	Deadline for IE to receive a flash-drive of Offers
August 13, 2018	PG&E notifies selected Participants that their Offer(s) will be included on a list of Offers for which PG&E may seek to enter into or negotiate an Agreement related to that Offer ("Shortlist")
August 20, 2018	Participants notify PG&E whether they accept Shortlist status and acknowledge acceptance of the Confidentiality Agreement
October 12, 2018	PG&E notifies selected Participants that their Offer(s) have been selected for execution
November 16, 2018	PG&E submits Agreements with final Shortlist Participant(s) for CPUC Approval

The schedule and documents associated with the RFO are subject to change at PG&E's sole discretion at any time and for any reason. PG&E will endeavor to notify Participants of any changes to the RFO, but shall not be liable for any costs or liability incurred by Participants or any other party due to a change or for failing to provide notice or acceptable notice of any change.

PG&E reserves the right to execute agreements resulting from this RFO (each an "Agreement") with any individual Participant at any time after selecting the Shortlist. PG&E's obligations under an Agreement will be conditioned upon PG&E's receipt of CPUC Approval within a stated period of time, as described further in Section XIII, CPUC Approval. PG&E will seek CPUC Approval of all executed Agreements. Participants should factor the CPUC's approval process into their project development timelines and proposals.

I.D. Events in the RFO Schedule

-
- 1) Online Registration: Participants should register at the RFO website <http://www.pge.com/rfo> to receive timely announcements and updates about this RFO and other RFO-related information via email. Online registration is not required, but is strongly recommended.
 - 2) PG&E issues the Solicitation: All documents associated with the Solicitation, including documents which Participants will need to prepare their Offer, are posted to PG&E's public website under "Integrated Distributed Energy Resources RFO."
 - 3) Participants' Webinar: The Webinar will provide an overview of the RFO and the requirements. Call-in information will be provided on the Solicitation website.

- 4) Offers Due: Offers must be received by PG&E by 1:00 P.M. Pacific on July 9. Participant Offer package(s) must be submitted through the online platform, Power Advocate. Offer package(s) must include the documents described in Section V.C, Required Information. PG&E encourages Participants to begin developing their Offer packages early and to send questions regarding the preparation of their Offer(s) to IDERRFO@pge.com. In addition, as described below in Section V.A., Participants must submit their offer materials on a USB flash-drive to the IE for delivery no later than tbd.

PG&E may request a meeting or conference call to discuss a Participant’s Offer. The purpose would be to provide PG&E with a full understanding of the details of an Offer for the evaluation process. The IE will be invited to participate in these discussions.

- 5) PG&E Selects Shortlist: PG&E expects to notify Participants selected for PG&E’s Shortlist by August 13. PG&E reserves the right to request additional information and to add additional Participants to the Shortlist following the initial selection.
- 6) PG&E and Participants Execute Agreements: PG&E expects to negotiate with Participants on the Shortlist and may select any subset of Shortlisted Offers for execution of an Agreement.
- 7) PG&E Submits Agreements for CPUC Approval: PG&E will seek CPUC Approval of each Agreement, as further described in Section XIII, CPUC Approval.

II. RFO Goals

II.A. PG&E Resource Needs

PG&E is seeking to enter into Agreements with DERs (“Projects”) that meet the specifications noted in Section IV, Eligibility Requirements.

The proposed location for this pilot demonstration is PG&E’s Gonzales substation, which is located within PG&E’s Gonzales distribution planning area and is expected to have overload conditions due to peak demand. Gonzales Substation was selected due to its timing certainty and potential for cost-effective DER solutions to address thermal overloading on peak days. PG&E is seeking projects located at Gonzales Bank 3, and at Gonzales Bank 4.

PG&E is seeking to procure up to 2 MW of DERs to provide load capacity by increasing generation, reducing electrical consumption, or shifting load. The additional distribution capacity needs to be available by June 2021 and must be maintained for five years.

Dispatchable resources may be called on a day-ahead basis up to 6 times a month for not more than 3 consecutive days and for not more than 12 days total during the summer loading period.

Participants must design, procure, finance, and cause the Project to be constructed, completed, tested and ready for placement into commercial operation in accordance with the following parameters:

Gonzales Bank 3: PG&E is targeting to procure up to 0.5 MW under the below operating parameters.

Delivery Term: 5 years

Delivery Months:

- June through September

Delivery Days:

- Weekdays only

Delivery Hours:

- 8:00 a.m.-12:00 p.m (noon)
- 5:00 p.m. to 9:00 p.m.
-

Gonzales Bank 4: PG&E is targeting to procure up to 1.5 MW under the below operating parameters.

Delivery Term: 5 years

Delivery Months:

- June through September

Delivery Days:

- Every day of the week

Delivery Hours:

- 8:00 am – 12:00 pm
- 12:00 pm – 4:00 pm
- 8:00 am – 4:00 pm

PG&E does not want the DERs it procures through this RFO to create additional problems on the distribution system. Any DERs procured through this Solicitation must not operate in a manner that negatively impacts the system. Projects on Gonzales Bank 3 may increase net loading (increase in electrical consumption or decrease in generation) by 0.5 MW between 9:00 pm to 6:00 am during the months of April through October and at any time during the months of November to March. Projects on Gonzales Bank 4 may increase net loading by 2 MW between 10:00 pm to 7:00 am during the months of April through October and at any time during the months of November to March. Restrictions for increasing net loading for Gonzales Bank 3 and Bank 4 may apply from 6:00 am to 9:00 pm and 7:00 am to 10:00 pm, respectively, during the months of April to October. Seller must not increase net loading during these hours through October 30, 2025.

III. PG&E Customer Engagement Support

Customer Engagement Support: PG&E recognizes the integral role that customer acquisition plays in the success of energy efficiency programs and projects. To improve the chances of program success and overall effectiveness, PG&E is offering customer acquisition support to Participants who see a benefit in such services and would like to incorporate the use of these services into their program design. Services under all support options will not begin until execution of an Agreement. PG&E will offer to Participants that enter into an Agreement with PG&E the following customer support options:

Co-Branding: Use of PG&E logo and branding in collaboration to enhance marketing efforts at a level of coordination further described below. All co-branding materials must meet PG&E's co-branding guidelines and be reviewed and approved by PG&E prior to communication. Co-branding of programs is not guaranteed and is ultimately decided on a case-by-case basis

1. Participant Only - Only the Participant's logo is present. The PG&E name is limited to factual statements of use only.
2. Participant / PG&E - Two corporate logos are present but the Participant is clearly leading and that party's logo is larger and more dominant. PG&E's logo is secondary and limited in size and placement per the details discussed later. Often times a short phrase is used to define the role that these brands play. Visual identity is that of the Participant.
3. PG&E/ Participant - Two corporate logos are present but PG&E is clearly leading and is larger and more dominant. The Participant's logo is secondary and limited in size and

placement per the details discussed later. Often times a short phrase is used to define the role that these brands play. Visual identity is that of PG&E.

4. PG&E Only (licensed) - Only the PG&E logo is present.

Marketing and Outreach Support: PG&E marketing and customer relationship specialists are made available to support and coordinate with Participants in program implementation follow execution and CPUC approval of an Agreement with PG&E. The following list outlines potential tactics and channels which Participants could incorporate PG&E expertise into their overall execution plan. Participants will need to provide a description of the marketing plan and further detail around the scope of activities the Participant would like PG&E to provide in connection with their contractual relationship.

1. Awareness and understanding
 - a. Web
 - b. Digital media
 - c. Social media
 - d. Events/webinars
 - e. Sponsorships
2. Customer acquisition
 - a. Email/Direct mail
 - b. SMS
 - c. Digital media
 - d. Telemarketing
 - e. Door to door
3. Customer retention
 - a. Email/Direct mail
 - b. Social media
4. Public relations
5. Customer targeting services
6. Customer research

Data Access: Any access to customer data sets for the project area subject to PG&E's rules regarding customer data privacy and security. All access to customer data requires the Participant which has entered into a CPUC approved Agreement with PG&E to successfully pass a Third-Party Data Security Review prior to the release of any data to the Participant.

Examples of data fields include:

- program-eligible customer List
- service point address
- service point rate schedule
- service point hourly loads of previous 12 months (or summary)

The use of PG&E customer support services is not a requirement for an Offer. Participants selecting any of the customer support options described above are required to submit two Offers; one Offer incorporating the PG&E support services, and a second Offer without any of the customer support options selected.

IV. Eligibility Requirements

Offers must meet the applicable specifications noted below.

IV.A. Offer Eligibility

Offers may be for Projects located in-front-of-the-meter or behind-the-meter. Projects must be a DER, which include:

- Demand Response
- Energy Storage
- Energy Efficiency
- Permanent Load Shift
- Renewable Distributed Generation
- Electric Vehicles

Offers must be for at least 250 kW for each Delivery Hour of a selected time block on a standalone or aggregated basis and may not exceed 1.5 MW.

Offers must be in 250 kW increments.

IV.B. Resource Double Payment/Double Counting

The goal of this Solicitation is to acquire DERs that are incremental to both existing DERs and DERs that are projected to be adopted during the forecast horizon.

Only DERs that are categorized as wholly incremental or partially incremental will be considered eligible for the purposes of this Solicitation. Energy efficiency Participants will have the option of having Offer evaluated for incrementality on a project-specific basis or having their Offer evaluated based on a pre-specified overlap factor. If the overlap factor option is selected, the value of the Offer will be discounted by 15 % to reflect the overlap between the Participant's proposal and energy efficiency resources that are projected to be deployed in the local area in the absence of the Offer. All other resource types must go through the project specific review.

For the project specific review, the Offer may be considered between 0% and 100% incremental. Participants must submit Appendix B5, Resource Double Payment/Double Counting, to show how the proposal is either wholly or partially incremental to ongoing PG&E incentive programs, tariffs, or other solicitations. Offers may be considered either fully

incremental or partially incremental. Participants will be required to describe how their proposed Project is incremental to PG&E’s programs, tariffs, or other solicitations:

- PG&E’s EE program portfolio
- PG&E’s DR program portfolio
- PG&E’s Self-Generation Incentive Program (SGIP)
- PG&E’s Net Energy Metering (NEM) program
- PG&E’s energy storage solicitations
- PG&E’s renewable generation solicitations

The below table describes what PG&E considers to be wholly, partially, or non-incremental.

Category	Description	Incremental
Not already sourced through another program, tariff, solicitation	New technology or service that is not already being sourced or reasonably expected to be sourced through another solicitation, program, or tariff that meets the identified distribution need.	Yes.
Partially sourced through another program, tariff, solicitation	Existing technology or service that meets the identified distribution needs but at least some component of that technology or service is already being sourced through another solicitation, program, or tariff.	Yes, but only the portion (if any) that is not currently being sourced or can reasonably be expected to be sourced through another solicitation, program, or tariff with the same locational and temporal granularity and performance guarantees as the bid technology.
Wholly sourced through another program, tariff, solicitation	Everything not covered above.	No. The technology is already being sourced or is reasonably expected to be sourced through another solicitation, program, or tariff with the same locational and temporal granularity and performance guarantees as the bid technology.

IV.C. Interconnection

Projects must connect or be associated with load facilities that connect to one of the following feeders at the Gonzales substation:

- Gonzales Bank 3__
- Gonzales Bank 4__

There are no minimum interconnection study requirements for an Offer. However, PG&E will assess whether Projects are likely to meet the required online date. Seller should submit any applicable interconnection studies with their Offers.

IV.D. Measurement and Verification (M&V)

Participants must submit Appendix B7, Measurement and Verification, describing in detail their proposed methodology for measuring distribution services under the Agreement. Preference will be given to proposals that employ existing M&V protocols adopted by the CAISO and CPUC as appropriate to the technology proposed.

V. Offer Submittal Process

V.A. Submittal Process Overview

All Offers must be received by tbd at 1:00 P.M. (Pacific), as specified in Table I.2, PG&E IDER Solicitation Schedule.

Submitting Documents: All Offers for this RFO *must* be submitted electronically through Power Advocate. Prior to submitting an Offer, Participants must register with Power Advocate. PG&E strongly encourages Participants to register with Power Advocate well before Offers are due. PG&E will post detailed instructions on the IDER RFO website for submitting Offer(s) and using the online platform. Power Advocate registrants should be listed under the entity submitting the Offer, the Participant, not its consultants.

Power Advocate Link:

- [tbd](#)

Power Advocate functions in most browsers; however it may not work as well in browsers older than Internet Explorer version 8.

Each Offer should be uploaded as a “Commercial” and “Administrative” document type in Power Advocate. If submitting more than one Offer, each Offer should be in separate zip files.

Please make sure that file names for your submittals do **not** contain any special characters such as * & #, and please keep file names short, but do include short references to Participant's name (such as an acronym) and the appendix (e.g., App B).

Electronic Document Formats: Electronic documents must be submitted as Microsoft Word, Microsoft Excel, or pdf files, as identified in Section V.C, Required Information. However, maps or drawings may be in alternate formats (e.g., jpg, kmz) as appropriate. Each Appendix must be a separate folder or document, not one long document. To the extent possible, pdf files should be provided in a searchable format. The Participant should not provide documents in other electronic formats, unless specifically requested.

V.B. Number of Offers and Variations Allowed Per Seller

There are no limits to the number of Offers Participants may submit.

V.C. Required Information

Each Participant's Offer must be complete at the time of submission. Participant's failure to provide all required information may prevent PG&E from being able to evaluate and rank the Offer, which means that the Offer may not be considered for the Shortlist.

Offers must contain all required information and must be organized in accordance with these instructions.

Participants must complete the following documents: (1) the initial Offer package (see Section V.C.1, Offer Package, below); and (2) the post-Shortlist package, if PG&E selects the Participant's Offer for the Shortlist (see Section V.2, Post-Shortlist Documents, below). Participants offer should be consistent with the obligations specified in the term sheet.

Note on Joint Offers: If a Participant is submitting an Offer jointly with another Participant, each Participant will need to be registered as a Participant in Power Advocate separately from any other Participant submitting an Offer and PG&E may require additional documentation or conditions, such as retaining separate legal counsel, restricting the sharing of certain information, or requiring all Participants to the joint Offer to acknowledge acceptance of a modified Confidentiality Agreement and agree to, and execute, modified terms for RFO participation, similar to those set forth in Section VII.A, Agreement by Participant.

1. Offer Package

Provide an **Introductory Letter** that describes the Project and all the Offers submitted, including identification of the differences between Offers, such as different Delivery Hours, delivery terms, sized, and technologies. In addition, complete all of the Appendices listed in Table V.1, below.

Price may include a \$/kW-month fixed price and may also include a \$/kWh variable price to be paid on days when the Project is notified that it is required to provide distribution services.

A separate Offer Form is required for each Offer variation, but an entirely new Offer package is not required; there is no need to submit unchanged, duplicate Appendices if the information is the same; but please provide a short note indicating which sections are duplicative over multiple Offers and which sections are different.

Table V.1: PG&E IDER RFO Offer Package

Appendix	Title	Description	Format
	Introductory Letter	Describe the Project and Offer information. A sample introductory letter outline is provided.	MS Word
A	Offer Form	Provide the requested information.	MS Excel
B1	Project Description	Describe the existing or proposed Project, format as single spaced, and include the requested information. Include interconnection study, if applicable	MS Word
B2	Site Control	Provide information relating to the Project's location	MS Word, PDF
B3	Project Milestone Schedule	Provide milestone schedule to support required online date.	MS Word
B4	Experience and Qualifications	Describe the Participant's experience and staff qualifications, including information requested.	MS Word
B5	Resource Double Payment/Double Counting	Describe whether Project or customers are expected to be enrolled in other PG&E programs and how the Project is incremental.	MS Word
B6	Organizational Information	Provide Participant corporate or organizational information, including a certificate of good standing or similar document from Participant's state of formation. The entity name on the certificate must match the name of Participant	MS Word
B7	Measurement & Verification Plan	Describe the Project's methodology for measuring distribution services under the Agreement.	MS Word

2. Post-Shortlist Documents

If the Participant is notified that it is eligible for and accepts PG&E's Shortlist position, then the Participant must complete the Appendices listed in Table VI.2, below. Any delay in providing the Appendices below will impact the Participant's Shortlist position.

Table V.2: PG&E IDER RFO - Post-Shortlist Appendices

Appendix	Title	Description	Format
C	Confidentiality Agreement	Participants must acknowledge acceptance of the Confidentiality Agreement when accepting a position on the Shortlist.	
D	Redline of Term Sheet	Provide a redline of the Term Sheet that reflects the Offer(s) Shortlisted	MS Word
E	Participant Financial Information	Provide Participant finance information	MS Word

VI. Evaluation of Offers

PG&E’s evaluation will apply “least-cost, best-fit” principles, using quantitative and qualitative criteria to evaluate the submitted Offers.

PG&E will construct different portfolios of Offers that meet the Gonzales area need. PG&E will evaluate Offers using quantitative and qualitative criteria, which may include, but are not limited to:

Quantitative Attributes:

- a) Benefits (Distribution Deferral Value)
- b) Fixed and Variable Costs, including Customer Engagement Support costs

Qualitative Attributes:

- a) Project Viability (experience, technology viability, interconnection, site control)
- b) Supply Chain Responsibility
- c) Technology, Counterparty Concentration
- d) Safety

Qualitative Factors

a) Project Viability

Project viability means the likelihood that the Project under an Offer can be successfully developed and then provide the product for the period stated in the Offer. This assessment is based on a review of the status and plans for key Project activities (e.g., financing, site control, permitting, engineering, procurement,

construction, interconnection, start-up and testing, operations, etc.) as well as experience and technology evaluation.

b) Supply Chain Responsibility

PG&E may consider Participant’s status as a Small Business Administration self-certified small business. PG&E is committed to supply chain responsibility which includes supplier diversity, sustainability and ethical supply chain practices. The Supplier Diversity Program, launched in 1981, aims to provide diverse suppliers with economic opportunities to supply products and services. The Supplier Sustainability Program, launched in 2007, encourages supplier responsibility, excellence and innovation.

Promoting an ethical supply chain means that Health and Safety, Labor Issues and Human Rights, Ethical Business Conduct and Conflicts of Interest are important considerations in supplier selection.

Additional information on PG&E’s DBE program can be found at:
www.pge.com/supplychainresponsibility

c) Counterparty and Technology Concentration

PG&E may consider the volume of energy or capacity already under contract from a particular counterparty, as well as Offers submitted in this RFO.

d) Safety

PG&E may consider Participants’ commitment to safety, based on the safety history and practices of the entities that will construct, operate, or maintain the Projects and safety information related to the technology for the Project and Project development.

Any or all qualitative factors may impact a Project’s status for Shortlisting or Agreement execution.

VII. Terms for RFO Participation

VII.A. Agreement by Participant

Each Participant submitting an Offer shall provide their electronic signature of a duly authorized officer of Participant in the Offer Form. By providing such signature the Participant (a) agrees to be bound by all terms, conditions and other provisions of this RFO and any changes or supplements to it that may be issued by PG&E, and (b) makes the following representations and warranties:

1. Participant has read, understands, and agrees to be bound by all terms, conditions and other provisions of the RFO.
2. Participant has had the opportunity to seek independent legal and financial advice of its own choosing with respect to the RFO and all Appendices to the RFO.
3. Unless otherwise specified in the Offer Form, Participant is not PG&E, an affiliate of PG&E, PG&E Corporation, or any of their affiliates.
4. Participant has obtained all necessary authorizations, approvals and waivers, if any, required of Participant as a condition of: (i) submitting its Offer and, if Participant's Offer is selected; (ii) executing an Agreement with PG&E at the conclusion of negotiations.
5. Participant is submitting its Offer subject to all applicable laws including, but not limited to, D.17 -02-007, the Federal Power Act and all amendments thereto, and Public Utilities Code section 454.5, and all amendments thereto.
6. Participant represents that it has carefully considered the terms and conditions of its Offer and that it is submitting its Offer in good faith, such that PG&E may reasonably expect Participant to enter into a definitive Agreement, and to negotiate, if requested by PG&E, as provided in Section XI, Execution of Agreement, below.
7. Participant has not engaged in and will not engage in communications with any other Participant in the RFO concerning any terms contained in Participant's Offer, unless explicitly authorized by PG&E, and has not engaged in activities in violation of State or Federal antitrust laws or other unlawful or unfair business practices in connection with the RFO ("Prohibited Communication Activities").

Notwithstanding the foregoing, Participant may engage in communications with its advisors, counsel, experts or employees who have a need to know the content of the communications and have agreed to keep such information confidential (collectively, "advisors"). In addition, Participant may engage in communications with other Participants submitting an Offer in the RFO and their advisors ("Other Participants"), so long as: (1) such Other Participants are under common ownership and control with Participant; (2) Participant and Other Participants do not engage in Prohibited Communication Activities; and (3) in the event Participant and Other Participant share a common advisor, Participant has, prior to sharing communications with such Other Participant and the common advisor, provided PG&E with (a) notice of such Other Participant and common advisor and (b) an attestation that Participant has not and will not engage in Prohibited Communication Activities with either the Other Participant or the common advisor.

8. If Participant's Offer is selected for the Shortlist and Participant accepts the position on the Shortlist, then Participant agrees to acknowledge acceptance of a Confidentiality Agreement, to negotiate in good faith, and to inform PG&E if the Project that is the subject of the Offer on the Shortlist has been submitted into another solicitation with PG&E or any other entity.
9. If a Participant is submitting an Offer jointly with other entities, and the Offer is selected for the Shortlist, PG&E may require, as part of the shortlisting process, additional representations and warranties, along with additional documentation, from all entities involved in the joint Offer (see Section V.C, Required Information, above).
10. Participant will promptly notify PG&E of any change in circumstances that may affect its ability to fulfill the terms of its Offer, at any time from Offer submission to PG&E's acceptance of the Offer, as evidenced by PG&E's execution of an applicable Agreement, or Participant's withdrawal of the Offer.

A BREACH BY ANY PARTICIPANT OF THE REPRESENTATIONS AND WARRANTIES IN SECTION V.A OF THIS SOLICITATION PROTOCOL, IN ADDITION TO ANY OTHER REMEDIES THAT MAY BE AVAILABLE TO PG&E UNDER APPLICABLE LAW, IS GROUNDS FOR IMMEDIATE DISQUALIFICATION OF SUCH PARTICIPANT FROM PARTICIPATION IN THE RFO AND, DEPENDING ON THE NATURE OR SEVERITY OF THE BREACH, MAY ALSO BE GROUNDS FOR TERMINATING THE RFO IN ITS ENTIRETY.

VII.B. PG&E's Reservation of Rights

This RFO is an invitation to submit Offers to PG&E; it does not constitute an offer to buy and creates no obligation to execute any Agreement or to enter into a transaction under an Agreement as a consequence of the RFO. PG&E reserves the right to request information from a Participant at any time during the solicitation process. PG&E reserves the right, in its sole discretion, to reject any Offer at any time for any reason, including but not limited to grounds that the Offer does not conform to the terms and conditions of this RFO or contains terms that are not acceptable to PG&E. PG&E also retains the discretion, in its sole judgment, at any time; (a) to formulate and implement new or additional criteria for the evaluation and selection of Offers; (b) to negotiate with any Participant or withdraw PG&E's Shortlist selection; or (c) to modify this RFO as it deems appropriate to implement the RFO and to comply with applicable law or other direction provided by the CPUC. In addition, PG&E reserves the right to either suspend or terminate this RFO at any time for any reason. PG&E will not be liable in any way, by reason of such withdrawal, rejection, suspension, termination or any other action described in this paragraph to any third party, including any Participant. PG&E will not reimburse the Participant for its expense of participating in this RFO under any circumstances.

VII.C. Safety

PG&E is committed to providing safe utility (electric and gas) service to its customers. As part of this commitment, PG&E requires that the Participants recognize safety is of paramount importance. In connection with this Solicitation and executed Agreement, Participants will be required to meet certain safety standards, provide safety information related to the technology for the Project, and provide information regarding safety history, including for the entities that will construct, operate, or maintain the Project(s). Per Appendix B8, Participants are required to identify in their Offers known safety-related hazards and risks associated with their Project's technology and Participant's ability to mitigate safety risks and comply with applicable safety-related codes and standards identified by the Participant.

A Participant's obligations with respect to safety may vary based on the particular Agreement and Project and product type, as well as the commercial relationship of the entities involved in the transaction. The Agreement will contain specific requirements intended to ensure that the Participant and the entities that construct, operation, or maintain the Project, as applicable, do so in a safe, reliable and efficient manner that protects the public health and safety of California residents, business, employees, and the community. Participants will be responsible for any fees and costs associated with meeting PG&E's safety requirements in the Solicitation and the Agreement.

VIII. Confidentiality

Except with PG&E's prior written consent, no Participant shall disclose its participation in this Solicitation (other than by attendance at any meeting held by PG&E with respect to the Solicitation) or collaborate on, or discuss with any other Participant or potential Participant bidding strategies or the substance of any Offer(s), including without limitation the price or any other terms or conditions of any Offer(s).

Except as provided below, all information and documents clearly identified by Participant as "Confidential" on the page(s) on which confidential information appears shall be considered confidential information. PG&E shall not disclose such information and documents to any third parties except for PG&E's or PG&E Corporation's, officers, directors, employees, agents, counsel, accountants, advisors, or contractors who have a need to know such information and have agreed to keep such information confidential and except as provided below. PG&E may use Confidential Information, consolidated with other market information and not specifically attributed to the Provider, to analyze or forecast market conditions or prices, for its own internal use or in the context of regulatory or other proceedings.

It is expressly contemplated that materials submitted by a Participant in connection with this RFO will be provided to the CPUC, its staff, the Independent Evaluator, and PG&E's Procurement Review Group ("PRG"). PG&E will seek confidential treatment pursuant to D.08-04-023, General Order 66-C, and Public Utilities Code section 583, with respect to any

Participant-supplied non-public RFO information and documents (“Participant’s Confidential Information”) that are submitted by PG&E to the CPUC for the purpose of obtaining CPUC Approval. PG&E will also seek confidentiality and/or non-disclosure agreements with the PRG applicable to the Participant’s Confidential Information. PG&E cannot, however, ensure that the CPUC will afford confidential treatment to a Participant’s Confidential Information, or that those confidentiality agreements or orders will be obtained from and/or honored by the PRG or the CPUC.

With respect to any information or documents provided by the Participant, PG&E shall have the right to disclose to the CPUC, its staff, the Independent Evaluator, the PRG, CAISO, other control area operator or balancing authority and any other entity in order to comply with any applicable law, regulation, or rule or order issued by a court or entity with competent jurisdiction over PG&E, at any time, even in the absence of a protective order, confidentiality agreement or nondisclosure agreement, as the case may be, without notification to the Participant and without liability or any responsibility of PG&E to the Participant.

Once a Participant is selected for the Shortlist, the Participant must acknowledge acceptance of the Confidentiality Agreement in the form attached as Appendix D and within five (5) business days of notification of their selection in order to continue to participate in the RFO. Depending upon Participant’s submittal in response to Appendix B6, PG&E may require additional confidentiality obligations with collaborating entities.

IX. Cost Allocation Mechanism (“CAM”) Group Review

Following completion of the evaluation and ranking of Offers, PG&E will submit the results of the evaluation and its recommendations to its CAM. Such information will include at least the all-in cost ranking of Offers, the consideration of non-price evaluation criteria, and PG&E’s recommendations based on such information. PG&E has no obligation to obtain the concurrence of the CAM with respect to any Offer.

PG&E assumes no responsibility for the actions of the CAM, including actions that may delay or otherwise affect the schedule for this Solicitation, including the timing of the selection of Offers and the obtaining of CPUC Approval.

X. Shortlist Notification to Participants

The Solicitation schedule set forth in Section I.C, Schedule Overview, may be modified at PG&E’s sole discretion. PG&E expects to be able to provide an e-mail notification to Participants whose Offers have been selected for the Shortlist, and invite each Participant on the Shortlist to conduct discussions and negotiations with PG&E regarding the Offer selected for the Shortlist. PG&E anticipates notifying those Participants whose Offers were not Shortlisted shortly thereafter.

XI. Execution of Agreement

By submitting an Offer, Participant agrees, if its Offer is selected for PG&E's Shortlist, that it is prepared to (1) enter into a definitive Agreement consistent with the term sheet, and (2) negotiate and execute a definitive Agreement consistent with the Participant's Offer and containing such other terms and conditions as may be mutually acceptable to PG&E and the Participant. PG&E's evaluation of a Participant's Offer and PG&E's Shortlisting of a Participant does not constitute an agreement by PG&E.

XII. Credit

Upon CPUC Approval of an Agreement with PG&E, the Participant must post collateral to PG&E to mitigate PG&E's risk in the event that the Project is not constructed or placed into commercial operation, or the Participant is otherwise unable to meet the conditions of the Agreement. Participant is required to post collateral in the form of cash or letter of credit from a reputable U.S. bank in the following amounts and by the time discussed below:

Project Development Security: \$40/kW for new resources, or \$25/kW for existing resources, due within five (5) Business Days following CPUC approval of the Agreement.

Delivery Term Security: \$40/kw, due by the Online Date. The bidder can elect to apply the unused portion of the PDS to DTS and provide additional collateral as needed. The PDS and DTS amounts are determined by multiplying \$40.00 per kW by the contract capacity (in kW) of the DER project.

Performance assurance is a routine commercial requirement intended to create an incentive for the developer to complete the project on time and ensure that the contractual performance of the project is met and maintained over the life of the contract. PDS and DTS amounts are needed as PG&E seeks to mitigate as much as possible any potential losses associated with a counterparty's non-performance. Since these projects are for local distribution reliability, there are real consequences for not coming on-line and delivering as promised. The performance assurance requirement helps mitigate the costs of replacing the defaulted DER contract. In determining the collateral requirements for DER projects PG&E takes into account many factors such as:

- Any upfront payments by PG&E for development of the project and the ability to collect back those payments if the project fails
- If there are no prepayments but project does not get developed, or is delayed, the costs necessary to correct the non-performance
- If the project is needed to address a regulatory mandated program and the project fails or is delayed, penalties that could be assessed
- If the project is developed and is operating, what the potential losses if the project fails to continue to operate or is not operating per requirements

As shown above, there is a variety of uncertainties that needs to be addressed as part of the design of the credit requirements. Over time the cost of replacement as a proxy for damages can change significantly higher or lower. For this reason, requirements for the development and delivery term securities can vary over time. There are additional considerations such as cost of replacement of emerging technologies such as energy storage or the costs associated with a temporary solution based upon immediate need at the time of default plus the costs associated with a longer term solution. Although it is difficult to determine the replacement costs prior to default, and it is possible that the amount PG&E is requiring may not be sufficient to cover those costs; the \$40/kW for PDS and DTS should help mitigate potential losses should a DER project fail. These requirements are consistent with the performance assurance requirements proposed in PG&E's 2018 Energy Storage Application, and are lower than what was in PG&E's June, 2017 IDER proposal. PG&E may increase or decrease the requirements for future solicitations if market conditions or costs of various products were to further fluctuate in the future.

XIII. CPUC Approval

Whether an Agreement becomes effective and binding on the parties is expressly conditioned on PG&E's receipt of CPUC Approval, which will be more specifically defined in the Agreement and term sheet. At a minimum PG&E will require a finding from the CPUC that PG&E's entry into the Agreement satisfies PG&E's IDER demonstration compliance requirement, that the terms are reasonable, and that PG&E will recover the costs incurred under the Agreement in its rates. Additionally, the Agreement will be subject to a no-fault termination if CPUC Approval does not occur within a specified period. CPUC Approval typically requires the approval of the Agreement by the CPUC to be final and non-appealable without any modifications that are unacceptable to either of the parties.

XIV. Waiver of Claims and Limitations of Remedies

Except as expressly set forth in this Protocol, by submitting an Offer, Participant knowingly and voluntarily waives all remedies or damages at law or equity concerning or related in any way to the Solicitation, the Solicitation Protocol and/or any attachments to the Solicitation Protocol ("Waived Claims"). The assertion of any Waived Claims by Participant may, to the extent that Participant's Offer has not already been disqualified, automatically disqualify such Offer from further consideration in the Solicitation or otherwise.

By submitting an Offer, Participant agrees that the only forums in which Participant may assert any challenge with respect to the conduct or results of the Solicitation is through the Alternative Dispute Resolution ("ADR") services provided by the CPUC pursuant to Resolution ALJ 185, August 25, 2005. The ADR process is voluntary in nature, and does not include processes, such as binding arbitration, that impose a solution on the disputing parties.

However, PG&E will consider the use of ADR under the appropriate circumstances. Additional information about this program is available on the CPUC's website at the following link:

http://docs.cpuc.ca.gov/published//Agenda_resolution/47777.htm

Participant further agrees that other than through the ADR process, the only means of challenging the conduct or results of the Solicitation is a protest to PG&E's filing seeking CPUC Approval of one or more Agreements entered into as a result of the Solicitation, that the sole basis for any such protest shall be that PG&E allegedly failed in a material respect to conduct the Solicitation in accordance with this Protocol, and the exclusive remedy available to Participant in the case of such a protest shall be an order of the CPUC that PG&E again conduct any portion of the Solicitation that the CPUC determines was not previously conducted in accordance with the Solicitation Protocol. Participant expressly waives any and all other remedies, including, without limitation, compensatory and/or exemplary damages, restitution, injunctive relief, interest, costs, and/or attorney's fees. Unless PG&E elects to do otherwise in its sole discretion during the pendency of such a protest or ADR process, the Solicitation and any related regulatory proceedings related to the Solicitation, will continue as if the protest had not been filed, unless the CPUC has issued an order suspending the Solicitation or PG&E has elected to terminate the Solicitation.

Participant agrees to indemnify and hold PG&E harmless from any and all claims by any other Participant asserted in response to the assertion of a Waived Claim by Participant or as a result of a Participant's protest to an advice letter filing with the CPUC resulting from the Solicitation.

Except as expressly provided in this Protocol, nothing herein including Participant's waiver of the Waived Claims as set forth above, shall in any way limit or otherwise affect the rights and remedies of PG&E.

XV. Termination of the RFO-Related Matters

PG&E reserves the right at any time, in its sole discretion, to terminate the RFO for any reason whatsoever without prior notification to Participants and without liability of any kind to, or responsibility of, PG&E or anyone acting on PG&E's behalf. Without limitation, grounds for termination of the RFO may include the assertion of any Waived Claims by a Participant or a determination by PG&E that, following evaluation of the Offers, there are no Offers that provide adequate ratepayer benefit.

PG&E reserves the right to change the Offer evaluation criteria for any reason, to terminate further participation in this process by any Participant, to accept any Offer or to enter into any definitive Agreement, to evaluate the qualifications of any Participant, and to reject any or all Offers, all without notice and without assigning any reasons and without liability to PG&E or anyone acting on PG&E's behalf. PG&E shall have no obligation to consider any Offer.

In the event of termination of the RFO for any reason, PG&E will not reimburse the Participant for any expenses incurred in connection with the RFO regardless of whether such Participant's Offer is selected, not selected, rejected or disqualified.

Attachment B2

**Appendix B1 – B8 - Integrated Distributed
Energy Resources Incentive Pilot RFO**



Integrated Distributed Energy Resources Incentive Pilot RFO

Supplemental RFO Documents Required for Participation

2018 Integrated Distributed Energy Resources Incentive Pilot RFO

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Appendix B1: Project Description

Participant Name:

PG&E reserves the right to request additional documentation listed but not already provided in the Offer package.

Please provide the following Project information in the order requested. Indicate if a question is not applicable and do not leave responses blank.

1. SYSTEM DESCRIPTION

A general description of the distributed energy resource system, including any control and communications system.

For Projects that are modifying load, please describe how the system will provide distribution services, including any modifications to customer behavior and asset relocations.

2. TECHNICAL/EQUIPMENT DESCRIPTION

A summary of the technical characteristics of the Project, including:

- (i) a listing of the major components (equipment) to be used;
- (ii) information relating to the availability of and Participant's access to the equipment and components utilized / proposed for construction and operation of the Project;
- (iii) equipment source (e.g. existing owned inventory, new manufacturer order, resale market purchase, etc.);
- (iv) terms and expiration of warranties/guarantees;
- (v) a non-confidential description of any new or proprietary processes in manufacturing, deployment, operation, etc.; and
- (vi) any other relevant technical information about the Project and supply chain considerations.

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- (vii) Has the equipment/application proposed been applied in commercial operations? If so, provide examples. If the technology/equipment has not been used commercially, please describe the status of the application.
- (viii) Please indicate if you have patent or license rights to new or proprietary processes, equipment, hardware/firmware/software, or systems necessary for the successful operation of the Project.

3. OPERATING PARAMETERS

To give PG&E an understanding and confidence that the proposed operation of the Project is achievable, provide the following information:

- (i) Describe specific design considerations and provide, where appropriate, significant design detail to confirm that the Project has been designed to accommodate planned operations. Components that should be specifically addressed are specific to your technology, such as PV panels, battery cells, inverters, auxiliary equipment, etc.
- (ii) List known or expected operating characteristics of the Project. Provide any manufacturer-provided operating specifications.

4. CUSTOMER ACQUISITION

For behind-the-meter projects, please describe the plan for acquiring customers.

5. PERMITTING

Please complete the following table of permits and discretionary approvals required from local, state, federal, and/or tribal authorities for both the Project and any interconnection related upgrades under consideration. Include those permits that are required but not currently held, the status of permits in the application phase, and the expiration date of all discretionary permits already obtained and the agency process for granting a permit extension. Provide links to agency or applicant web sites where permit information is available.

Table of Discretionary Land Use Permits and Approvals Required from Local, State, Federal, and/or Tribal Authorities for the Project and any Interconnection Upgrades

2018 Integrated Distributed Energy Resources Incentive Pilot RFO

Permit Type or Approval	Issuing Agency/Entity	Date Issued <i>Or</i> Date application submitted and Date anticipated	Permit Expiration Date*
<i>EXAMPLE: Conditional Use Permit</i>	<i>Alameda County, CA</i>	<i>Issued 1/1/2015</i>	<i>Expires 1/1/2018</i>
[List additional permits, as necessary.]			
* Describe the agency process for granting a permit extension and the length of the extension.			

6. ENVIRONMENTAL RESOURCE REVIEWS AND APPROVALS

Please provide the following information, identifying all required environmental resource reviews, permits or approvals obtained, in progress, or anticipated for the Project, including but not limited to those listed below. Indicate permit/approval status and anticipated issuance or approval date. Provide links to agency or applicant web sites where agency environmental review and determination documents (i.e., EIR, EIS) and Project environmental study documents are available. If applicable, indicate if environmental reviews are not required by the permitting agency for the Project, and why.

(i) CEQA/NEPA Review

- NEPA Lead Agency (if required)
 - Type of Document - EA/FONSI or EIS
 - Date Final Document Approved, or estimated approval date
- CEQA Lead Agency (if required)
 - Type of Document - NegDec, Mitigated NegDec or EIR
 - Date final document approved, or estimated approval date
 - State Clearinghouse Number

(ii) Endangered Species

- USFWS Section 7 Consultation (if required)
 - Federal agency initiating consultation
 - Type of Consultation – Informal, Formal
 - Type of USFWS Response – Concurrence or Biological Opinion & Incidental Take Permit
 - Date Consultation Completed or estimated completion date

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- California DFW Consultation (if required)
- Incidental Take Permit (if required)
- Date Incidental Take Permit received or estimated receipt date

(iii) Cultural Resources

- If required, provide Native American stakeholders to be consulted. If they have been consulted, then please provide contact dates.
- Status of Section 106 review, if required
- Describe any cultural resources on the Project Site eligible for or listed on national or state registers

(iv) Water Resources

- Describe any “will serve” commitments from the local water provider for the Project, and provide the name of the local provider
- Date commitment received or estimated receipt date

As applicable, please provide any additional permitting and environmental information for the items below, as this could support the Project Viability assessment. Provide impact information and mitigation plans when relevant. If information is not available, please indicate as such.

- (i) Hazardous Materials/Waste (i.e., type and volumes)
- (ii) Water Quality and Supply (i.e., source, amounts, on-site usage and discharge)
- (iii) Air Quality
- (iv) Stakeholder Engagement (i.e., anticipating and addressing public concerns about the Project)

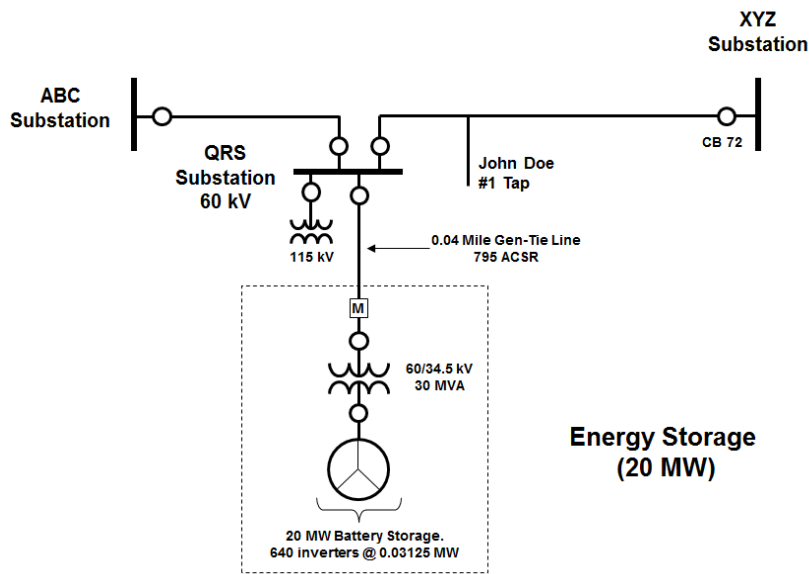
7. PRELIMINARY DESIGN

Provide the following preliminary design information used as the basis for the facility design and associated performance guarantees. Depending on the technology of the project offered, some sections will not apply.

- (i) General Arrangement Drawings
- (ii) Plot Plan

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- (iii) Single-Line Diagrams with metering and Point of Interconnection clearly shown



EXAMPLE SINGLE-LINE DIAGRAM

- (iv) Heat Balance Diagram
For those resources that burn fuel, then provide a heat balance diagram for each fuel type used. Heat balances for each fuel to be permitted shall include the mass flow rate (lb/hr), temperature (°F), pressure (psia), and enthalpy (BTU/lb) for all energy, water, steam, combustion air, and fuel streams entering and exiting the boundaries of the generating unit and of each major equipment component. The heat balances shall be provided for each fuel that will be permitted for use at the facility. The fuel constituents and heating value shall be provided for each of the fuels.
- (v) Piping & Instrument Diagrams (P&ID)
The Piping and Instrument Diagrams (“P&IDs”) should include line sizes, instrumentation, and valves for all major systems that will be provided by Participant. The Participant shall also provide a list of all system P&IDs that will be prepared during the design phase of the Project.

8. INTERCONNECTION

Provide the following information regarding interconnection:

- (i) Provide a written description of your interconnection plans and any known network requirements that may be needed.

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- (ii) List the current or proposed point of interconnection to the distribution system, and the distance from the Project to the electric interconnection point.
- (iv) Status of Project's studies associated with the interconnection process, along with any application fees paid. Expected dates for: (i) the completion of the various studies associated with the interconnection process; (ii) the completion of any upgrades required for interconnection; and (iii) the ultimate availability of the interconnection.
- (v) Completed interconnection study or interconnection agreement, if applicable.

9. GAS INTERCONNECTION

If applicable, provide a description of the existing/proposed gas interconnection including but not limited to a description of the interconnecting utility, gas application status, gas agreement dates, etc.

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Appendix B2: Site Control (applicable to Front of the Meter projects only)

Participant Name: _____

PG&E reserves the right to request additional documentation regarding items listed but not already provided in the Offer package.

Please provide the following project information in the order requested. Indicate if a question is not applicable and do not leave responses blank.

1. Geographic Coordinates of the Project
Provide Township/range/section numbers and latitude/longitude of the land on which any portion of the Project is proposed.
2. APN Number and Site Address
Please provide the County Assessor's parcel number (APN) and site address.
3. Street map, Aerial, or USGS map
Provide a map that shows the assessor parcel boundary(ies), the Project boundary, and location of the Project's key facilities such as transformer or substation and distribution line interconnection.
4. A Digital Map
Please provide the map of the Project boundary, access roadways, and the rights-of-way for all interconnecting utilities in either one of the following formats:
 - i. Google kml/kmz, ESRI shapefile or other GIS data file with specific projection information for GIS files. Instructions for generating a GIS file using Google Earth can be found on the RFO website on www.pge.com/rfo.
 - ii. A digital map (.pdf, .jpg, tiff, etc.) of the aerial street or USGS topo background.
5. Elements of Site Control
Please specify the legal and property interests through which the Participant or Project will exercise control over the land on which the Project and other appurtenances required for the operation and maintenance of the Project are situated for the entire term of the

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proposed Agreement.

For example, interests may include fee ownership, lease, easement. Interests may be existing or exercisable options. If interests are contingent, please specify the nature and timing of the contingencies.

Please identify any interests in land that Participant does not have, but would be required for the operation and maintenance of the Project or appurtenances.

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Appendix B3: Project Milestone Schedule

Participant Name:

PG&E reserves the right to request additional documentation to support information listed but not already provided in the Offer package.

Please provide a Project milestone schedule describing financing, permitting, engineering, procurement, construction, interconnection, and startup activities, timelines and status. The schedule should include major activities and milestones for all aspects of the Project (including financing, interconnection, permitting, equipment procurement, construction, synchronization, and commercial operations) since project inception through the first year of commercial operation along with a supporting narrative.

[Sample milestones for illustration only. Participant to insert project-specific list.]

No.	Date	Milestones
1		Demonstrates site control / customer acquisitions.
2		Submits interconnection application.
3		Files any discretionary agency permit applications (i.e. environmental, land use).
4		Files ministerial/construction permit application(s).
5		Receives a completed System Impact Study or Phase I Interconnection Study.
6		Obtains control of all lands and rights-of-way comprising the Site.
7		Receives a completed interconnection Facility Study or Phase II Interconnection Study.
8		Executes an interconnection agreement and transmission/distribution service agreement, as applicable.
9		Receives FERC acceptance of interconnection agreement and transmission agreement.
10		Receives discretionary agency permit (i.e. environmental, land-use).
11		Receives ministerial/construction permits.

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12		Executes contract
13		Procures the _____ <i>[insert applicable distributed energy resource equipment]</i> for the Project.
14		Completes financing, including construction financing.
15		Begins construction of the Facility.
16		Begins startup activities.
17		Initial Performance Test.
18		Commercial Operation Date.

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Appendix B4: Experience and Qualifications

Participant Name:

PG&E reserves the right to request additional information to support documentation listed but not already provided in the Offer package.

Provide information in the order requested. Indicate if a question is not applicable and do not leave responses blank.

Please describe the Participant's experience and staff qualifications, including but not limited to:

1. Organizational chart for the Project that lists the Project participants and identifies the management structure and responsibilities.
2. The staff make-up and size and the identification and brief description of Participant's key personnel and management.
3. Experience and qualifications in developing, designing and constructing, and operating and maintaining distributed energy resource facilities, as well as contracting to sell and deliver long-term power supplies. Participant should highlight their experience in these areas as it relates to:
 - projects utilizing the same technology as the proposed Project;
 - projects of similar capacity and configuration as the proposed Project;
 - specific engineering, procurement and construction (EPC) contractors being considered for this Project; and
 - projects supplying distributed energy resources and/or energy to California.
4. Participant experience and history in financing distributed energy resource facilities, along with the financing plan and expected financing sources for the proposed Project. Identify any government assistance / program to be requested, expected, or received that would affect financing of this project.

Appendix B5: Resource Double Payment/Double Counting

Participant Name:

1. For wholly incremental consideration, please provide a qualitative description of how the Project is, and will continue to be throughout the delivery term, new and wholly incremental to PG&E’s programs, tariffs, or solicitations.

2. For wholly incremental consideration, please provide a quantitative estimate (in kw and kwh) establishing how the Project will provide, and continue to provide Distribution Services throughout the delivery term, distribution services that are new and wholly incremental to PG&E’s programs, tariffs, or solicitations.

2. For partial incremental consideration, please provide a qualitative description of how the Project is, and will continue to be throughout the delivery term, a modification or enhancement to PG&E’s programs, tariffs, or solicitations.

3. For partial incremental consideration, please provide a quantitative estimate (in kw and kwh) establishing how the Project will provide, and continue to provide Distribution Services throughout the delivery term, distribution service that are incremental to the distribution service provided by PG&E’s programs, tariffs, or solicitations.

Examples

Category	Example	Incremental
Not already sourced through another program, tariff, solicitation	An “add-on” program to any already deployed DER that would allow that already deployed DER to provide the distribution services solicited (for example, a demand response program that utilizes existing thermostats, DG, energy storage, or electric vehicles). A new load modifying demand	Yes, if the existing resources without the “add on” were not capable of providing the distribution service.

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Category	Example	Incremental
	<p>response program that provides the local distribution services solicited (for example, an appliance DLC program).</p> <p>An energy efficiency technology or program that is not already included in PG&E’s energy efficiency program portfolio.</p>	
<p>Partially sourced through another program, tariff, solicitation</p>	<p>Offering an enhanced incentive to increase uptake of a DER in an area over what would be expected under the base program, tariff, solicitation (for example, converting an existing energy efficiency co-pay program to a direct install program or offering enhanced incentives to increase uptake of DG or ES in a local area).</p>	<p>Yes, but only the portion (if any) that is not currently being compensated for by the existing base program, tariff, solicitation.</p> <p>There would be a high bar in this case for the vendor to show that the enhanced incentive will increase uptake.</p>
<p>Wholly sourced through another program, tariff, solicitation</p>	<p>Bidder submits bid for rooftop PV that is already compensated under NEM tariff without material enhancement.</p> <p>Bidder submits bid for DG or ES that is already compensated for under SGIP without material enhancement.</p> <p>Bidder submits bid for EE or DR program that is already in PG&E’s EE or DR portfolio without material enhancement.</p>	<p>No, distribution services have already been compensated for under existing programs or tariffs.</p>

Appendix B6: Organizational Information

Participant Name:

A. Participant Organizational Information:

1. Indicate the full, complete and correct Legal Name of Participant and provide copy of a certificate of good standing or similar document from Participant's state of formation. The entity name on the certificate must match the name of Participant:
2. Describe in detail Participant's organizational structure. A written description and a box diagram showing links are both helpful. If applicable, list the legal names of the participants of a joint Offer Participants, owners of the Project (if different than the Participant) and the relative percentage ownership of Participant of the Project, and in addition address all of the following if applicable:
 - Participant is a direct or indirect subsidiary or affiliate of any other entity or corporation provide detail as to the relationships and identify the ultimate parent;
 - Participant is part of a partnership, provide the names of all partners and indicate the general partner(s);
 - Participant is a joint venture, identify the members of the joint venture and indicate if any is the controlling entity;
 - Participant a limited liability company, identify the members;
 - Participant is acting as a member of a consortium or other organization, association or group of persons acting in concert for purposes of submitting a joint Offer, provide the names of all the members and indicate the controlling member of the consortium, organization, association or group.
3. Provide the name of the principal state where the entities named in item A.2 above are registered or incorporated with an "active" status. If Participant is incorporated outside of California but is also registered in California, but under a different name, please provide that name.

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4. Please identify the parties (including Participant's entity) you believe will need to know "Confidential Information" (as that term is defined in the Confidentiality Agreement, Appendix D) during any upcoming negotiations of your Offer with PG&E. If you are the only party with a need to know, just indicate that.
5. List and describe any pending legal disputes that may affect the Participant's ability to enter into or fulfill its ability to perform under the proposed Offer.
6. Provide the name and contact information of your legal counsel representing you in this Offer, if PG&E requests further information or clarification or needs to address conflicts of interest.

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Appendix B7: Measurement and Verification (M&V)

Participant Name:

1. Please describe in detail the methodology for determining distribution services provided under the Agreement. How will project performance be verified throughout the delivery term? Please indicate the use of existing M&V protocols adopted by the CAISO or CPUC as appropriate to the technology proposed, such as revenue-quality interval meters, accepted baseline methodologies, and IPMVP. Please describe any metering systems and configurations.
2. Please describe any modeling tools or software that will be used for measurement and verification. Are any of the proposed modeling tools or software that will be used proprietary or requiring special licensing? If yes please provide a brief description.

For Projects utilizing a baseline methodology:

3. Please describe baseline conditions used to quantify the amount of distribution services provided by the Project. Please identify what minimum code/and or industry standard practice will be used to establish the baseline, as well as the pre-installation baseline time period proposed.
4. Please describe any post-installation components that will be used to revise or reconcile pre-installation baseline conditions.
5. Please describe which independent variables will be used to quantify baseline conditions (e.g., temperature, production rates, etc.).

Appendix B8: Safety

Participant Name:

1. Describe all known safety hazards associated with the distributed energy resource and configuration planned for the Project. Provide descriptions of the systems or processes typically used to manage or mitigate any risks associated with the known safety hazards.
2. Identify the relevant industry safety-related codes or standards and government regulations that apply to the design and operation of the distributed energy resource using the proposed technology and configuration (e.g. NEC Article 480 for stationary energy storage, etc.).
3. Provide a description of any ongoing processes used by the distributed energy resource original equipment manufacturer (OEM) and its customers to communicate lessons learned about its installed projects to identify, resolve, and prevent potential safety-related issues.
4. Provide the safety record of the Participant and identified contractors associated with the Project, and identify subsequent actions taken to manage or mitigate any safety incidents. Provide documentation for the previous three years (2014-2016) to demonstrate Participant's (if applicable) and/or associated contractors' Occupational Safety and Health Administration (OSHA) Recordable Incident Rates and Experience Modification Rates.

Attachment B3

**Appendix C – Confidentiality
Agreement Draft**

Integrated Distributed Energy Resources Incentive Pilot RFO Confidentiality Agreement**CONFIDENTIALITY AGREEMENT**

This confidentiality agreement (“Confidentiality Agreement”) is entered into by and between Pacific Gas and Electric Company, a California corporation, (“PG&E”) and Participant as indicated on its Shortlisted Offer, each of which may be referred to herein separately as a “Party” or together as the “Parties” and is entered into and dated as of the date of PG&E’s Shortlist notification to Participant (“Execution Date”).

Whereas, each Party (“Provider”) may have furnished and is furnishing to the other Party (“Recipient”) certain Confidential Information, as defined below, in order to assess Participant’s offer to sell certain products and services as submitted into PG&E’s Integrated Distributed Energy Resources (“IDER”) Solicitation (“Solicitation”) pursuant to California Public Utilities Commission Decision (D).16-12-036 and the negotiation of an agreement (“Agreement”) in connection with the Solicitation, if applicable;

Whereas, it is to the mutual benefit of each Party hereto to enter into this Confidentiality Agreement and provide for the procedure to exchange and protect Confidential Information, as defined below, pursuant to this Confidentiality Agreement;

NOW, THEREFORE, in consideration of Provider’s disclosure to Recipient of Confidential Information and other valuable consideration, the Parties agree as follows:

1. Definition of Confidential Information

The term “Confidential Information” shall mean all information that either Party has furnished or is furnishing to the other Party, which with respect to Participant as Provider must in addition be clearly marked “Confidential” (or promptly identified in writing as such when furnished to PG&E in intangible form), in connection with or pertaining to the Solicitation or any Agreement, whether furnished before or after the Execution Date of this Confidentiality Agreement, whether intangible or tangible, and in whatever form or medium provided, and regardless of whether owned by Provider, as well as all information generated by Recipient or its Representatives, as defined below, that contains, reflects, or is derived from such furnished information. “Confidential Information” shall also include information regarding the Parties’ bidding and negotiation process, including the status of such process, and potential commercial relationship concerning the Solicitation or any Agreement. Capitalized terms not otherwise defined herein shall have the respective meaning given in the Solicitation.

2. Disclosure to Representatives

Recipient agrees that it shall maintain the Confidential Information in strict confidence and that the Confidential Information shall not, without Provider’s prior written consent, be disclosed by Recipient or by its affiliates, or their respective officers, directors, partners, employees, agents, or representatives (collectively, “Representatives”) in any manner whatsoever, in whole or in part, and shall not be used by Recipient or by its Representatives other than in connection with the Solicitation and the evaluation or negotiation of the Agreement; provided that, PG&E may use Confidential Information, consolidated with other market information and not specifically attributed to the Provider, to analyze or forecast market conditions or prices, for its own internal use or in the context of regulatory or other proceedings. Moreover, Recipient agrees to transmit the Confidential Information only to such of its Representatives who need to know the Confidential Information for the sole purpose of assisting Recipient with such permitted uses, as applicable; provided that, Recipient shall inform its Representatives of this

Integrated Distributed Energy Resources Incentive Pilot RFO Confidentiality Agreement

Confidentiality Agreement and secure their agreement to abide in all material respects by its terms. In any event, Recipient shall be fully liable for any breach of this Confidentiality Agreement by its Representatives as though committed by Recipient itself.

3. Nondisclosure

Recipient further agrees that it:

- (a) shall not disclose any Confidential Information provided to it by Provider to any third party for any purpose, except as provided in Section 5 below (or Section 2 above if a Representative is a third party);
- (b) shall not distribute all or any portion of Confidential Information to any Representative for any purpose other than as permitted by Section 2 above; and
- (c) shall destroy or return all such Confidential Information upon Provider's request; provided that, each Party shall have the right to retain one copy of Confidential Information for regulatory compliance or legal purposes, and neither Party shall be obligated to purge extra copies of Confidential Information from electronic media used solely for disaster recovery backup purposes.

4. Exclusions to Confidential Information

For purposes of this Confidentiality Agreement, Confidential Information does not include information that:

- (a) is in the public domain at the time of the disclosure by Provider or is subsequently made available to the general public through no violation of this Confidentiality Agreement by Recipient;
- (b) Recipient can demonstrate was at the time of disclosure by Provider already in Recipient's possession and was not acquired, directly or indirectly, from Provider on a confidential basis;
- (c) is independently developed by Recipient without use of or reference to the Confidential Information; or
- (d) is disclosed with the prior written consent of Provider.

5. Required and Permitted Disclosure

Recipient agrees not to introduce (in whole or in part) into evidence or otherwise voluntarily disclose in any administrative or judicial proceeding, any Confidential Information, except as required by law or as Recipient may be required to disclose to duly authorized governmental or regulatory agencies ("Required Disclosure"). In the event that Recipient or any of its Representatives becomes subject to a Required Disclosure, Recipient agrees:

- (a) to the extent practicable, to use reasonable efforts to notify Provider prior to disclosure and to prevent or limit such disclosure; and

Integrated Distributed Energy Resources Incentive Pilot RFO Confidentiality Agreement

- (b) if disclosure of such Confidential Information is required to prevent Recipient from being held in contempt or subject to other legal detriment, to furnish only such portion of the Confidential Information as it is legally compelled to disclose and to exercise its reasonable efforts to obtain an order or other reliable assurance that confidential treatment will be accorded to the disclosed Confidential Information.

After using such reasonable efforts, Recipient shall not be prohibited from complying with the Required Disclosure and shall not be liable to the other Party for monetary or other damages incurred in connection with the Required Disclosure.

In addition to the Required Disclosure, PG&E shall be permitted to disclose Confidential Information as follows: (i) to PG&E's Procurement Review Group ("PRG"), as defined in California Public Utilities Commission ("CPUC") Decision (D) 02-08-071 and subject to confidential treatment by PRG members; (ii) to the CPUC (including CPUC staff) under seal for purposes of review (if such seal is applicable to the nature of the Confidential Information), and (iii) to the Independent Evaluator, as defined and specified in the PG&E Integrated Distributed Energy Resources ("IDER") Solicitation Protocol ("Protocol"). PG&E shall also be permitted to disclose Participant's Confidential Information in order to comply with (A) any applicable law, regulation, or any exchange or control area rule, or (B) any applicable regulation, rule, or order of the CPUC, California Energy Commission, the California Air Resources Board, or the Federal Energy Regulatory Commission, including any mandatory discovery or data request issued by any of the foregoing entities.

6. No License Rights

This Confidentiality Agreement and any Confidential Information used or disclosed hereunder shall not be construed as granting, expressly or by implication, Recipient any rights by license or otherwise to such Confidential Information or to any invention, patent or patent application, or other intellectual property right, now or hereafter owned or controlled by Provider.

7. Publicity

Subject to Sections 4 and 5, neither Party will disclose any information or make any news release, advertisement, public communication, response to media inquiry or other public statement regarding this Confidentiality Agreement and the Confidential Information disclosed hereunder (including without limitation the potential commercial relationship between the Parties, the inclusion of an offer on PG&E's shortlist of offers, or the status of negotiations) or the performance hereunder or with respect to an offer, without the prior written consent of the other Party.

8. No Future Contracts

Entry into this Confidentiality Agreement and the disclosure of Confidential Information hereunder shall not constitute an offer or acceptance or promise of any future contract or amendment of any existing contract. Each Party shall retain such rights with respect to its own Confidential Information as it had prior to entering into this Confidentiality Agreement. Neither Party shall have any legal obligation with respect to any contemplated transaction because of this Confidentiality Agreement nor any other written or oral expression with respect to any transaction except, in the case of this Confidentiality Agreement, for the matters specifically agreed to herein.

Integrated Distributed Energy Resources Incentive Pilot RFO Confidentiality Agreement**9. No Representation or Warranties**

Any Confidential Information exchanged under this Confidentiality Agreement shall carry no warranties or representations of any kind, either expressed or implied, unless specifically expressed per the terms of the Protocol. Recipient shall not rely on the Confidential Information for any purpose other than to make its own evaluation thereof or as provided in the Protocol.

10. Injunctive Relief

Recipient acknowledges and agrees that, in the event of any breach of this Confidentiality Agreement, Provider may be irreparably and immediately harmed and monetary damages may not be adequate to make Provider whole. Accordingly, it is agreed that, in addition to any other remedy to which it may be entitled in law or equity and, with respect to PG&E as Provider any remedy under the Protocol, Provider shall be entitled to an injunction or injunctions (without the posting of any bond and without proof of actual damages) to cease breaches or prevent threatened breaches of this Confidentiality Agreement and/or to compel specific performance of this Confidentiality Agreement, and that neither Recipient nor its Representatives will oppose the granting of such equitable relief if a court finds a breach or threatened breach. Each Party expressly agrees that it shall bear all costs and expenses, including attorneys' fees and costs that it may incur as Provider in enforcing the provisions of this Confidentiality Agreement.

11. Term and Provisions Surviving Termination

This term of this Confidentiality Agreement shall be two (2) years from the Execution Date; provided however, that either Party may earlier terminate this Confidentiality Agreement by giving the other Party thirty (30) days prior written notice of its intention to terminate this Confidentiality Agreement. Any such expiration or termination shall not abrogate either Party's obligations hereunder with respect to Confidential Information received prior to such expiration or termination nor those terms herein relating to the interpretation or enforcement of this Confidentiality Agreement relating to said obligations. Such obligations and terms shall survive for a period of three (3) years from said expiration or termination.

12. No Waiver

Any waiver of any provision of this Confidentiality Agreement, or a waiver of a breach hereof, must be in writing and signed by both Parties to be effective. Any waiver of a breach of this Confidentiality Agreement, whether express or implied, shall not constitute a waiver of a subsequent breach hereof.

13. Binding Nature and Amendment

This Confidentiality Agreement contains the entire understanding between the Parties with respect to Confidential Information received hereunder. No change or modification shall be effective unless made in writing and signed by an authorized representative of each Party. Any conflict between the language of any legend or stamp on any Confidential Information received hereunder, any provision of the Protocol, or Agreement relating to Confidential Information provided during the term of the Agreement, on the one hand, and this Confidentiality Agreement, on the other hand, shall be resolved in favor of the language of this Confidentiality Agreement. This Confidentiality Agreement may not be amended or modified except by a written agreement executed by both Parties.

Integrated Distributed Energy Resources Incentive Pilot RFO Confidentiality Agreement**14. Governing Law and Jurisdiction**

THIS CONFIDENTIALITY AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA. THE PARTIES AGREE THAT ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATED IN ANY WAY TO THIS CONFIDENTIALITY AGREEMENT SHALL BE BROUGHT SOLELY IN A COURT OF COMPETENT JURISDICTION SITTING IN THE CITY AND COUNTY OF SAN FRANCISCO. THE PARTIES HEREBY IRREVOCABLY AND UNCONDITIONALLY CONSENT TO THE JURISDICTION OF ANY SUCH COURT AND HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVE ANY DEFENSE OF AN INCONVENIENT FORUM TO THE MAINTENANCE OF ANY ACTION OR PROCEEDING IN ANY SUCH COURT, ANY OBJECTION TO VENUE WITH RESPECT TO ANY SUCH ACTION OR PROCEEDING AND ANY RIGHT OF JURISDICTION ON ACCOUNT OF THE PLACE OF RESIDENCE OR DOMICILE OF ANY PARTY THERETO. THE PARTIES HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVE THE RIGHT TO A JURY TRIAL IN CONNECTION WITH ANY CLAIM ARISING OUT OF OR RELATED TO THIS CONFIDENTIALITY AGREEMENT.

15. Severability

If any provision hereof is unenforceable or invalid, it shall be given effect to the extent it may be enforceable or valid, and such unenforceability or invalidity shall not affect the enforceability or validity of any other provision of this Confidentiality Agreement.

16. Notice

Any notice given hereunder by either Party shall be made in writing and shall be effective once delivered, by any of the following means: (a) facsimile or e-mail, with indication of complete electronic transmission thereof and receipt of a copy sent via certified U.S. Mail, return receipt requested, as evidenced by a signed delivery receipt; or (b) overnight delivery by a nationally recognized overnight delivery service, as verified by a delivery receipt or signature, addressed as follows:

To Participant: At the name, address and email as indicated in Participant's Offer to PG&E. To PG&E:
Pacific Gas and Electric Company
Electric Supply Department
Attn: IDER Manager
77 Beale Street, (MC B25J)
San Francisco, California 94105
Facsimile: (415) 973-3946
Email: IDERRFO@pge.com.

Either Party may periodically change any address to which notice is to be given it by providing written notice of such change to the other Party.

IN WITNESS WHEREOF, each Party has acknowledged and accepted this Confidentiality Agreement as of the Execution Date by Participant accepting its Shortlist status and by PG&E providing to Participant the Shortlist notification.

Attachment B4

Appendix D - Term Sheet for IDER Incentive Pilot

Appendix D

Term Sheet for IDER Incentive Pilot

1.	Project	All units, together with all appurtenant facilities and equipment, including any control and communications systems, necessary to provide Distribution Services. Units must be a distributed energy resource, and may be any technology, including energy efficiency, demand response, energy storage, and distributed generation and may be in front of or behind the Project's retail meter.
2.	Transaction	<p>The Distribution Services provider ("Seller") shall sell and deliver, and Pacific Gas and Electric Company ("Buyer") shall purchase and receive, Distribution Services at the Contract Capacity from the Project. Seller may sell other products, including Distribution Services in excess of the Contract Capacity, to third parties or into the applicable market. Seller shall receive and retain any revenues from the sale of other products.</p> <p>Seller may not provide Distribution Services from a source other than the Project. At Buyer's request, Seller shall provide to Buyer all information and data necessary to confirm that Seller delivered the Distribution Services from the Project.</p>
3.	Distribution Services	The Project's ability to provide distribution load capacity by decreasing net loading on distribution infrastructure through decreasing electrical consumption or increasing generation, in accordance with the Operating Parameters to reduce thermal overload conditions and improve local distribution reliability and resiliency.
4.	Contract Capacity	Distribution load capacity: [•] MW <i>[Seller to designate. Contract Capacity must be at least 250 kW for every Delivery Hour in a selected time block.]</i>
5.	Contract Price	<p>Capacity Price = [•] \$/kw-month <i>[Seller to designate]</i></p> <p>VOM = [•] \$/kwh <i>[Seller to designate]</i></p>
6.	Operating Parameters	<p>The Operating Parameters of the Project are:</p> <p><i>[] For distribution load capacity at Gonzales Bank 3:</i></p> <p>Delivery Months:</p> <ul style="list-style-type: none"> • June, July, August and September <p>Delivery Days:</p> <p style="padding-left: 40px;">Monday through Friday</p> <p>Delivery Hours: [] 5:00 pm to 9:00 pm [] 8:00 am to 12:00 pm</p> <ul style="list-style-type: none"> • . <p><i>For distribution load capacity at Gonzales Bank 4:</i></p>

		<p>Delivery Months:</p> <ul style="list-style-type: none"> • June, July, August and September <p>Delivery Days: Every day of the week</p> <p>Delivery Hours: [Seller to designate block of hours]</p> <ul style="list-style-type: none"> • [] 8:00 am to 12:00 pm • [] 12:00 pm to 4:00 pm • [] 8:00 am to 4:00 pm <p>Minimum duration the Project must be able to deliver: [4 / 8] hours The Project must not increase net loading on the specified circuits in Section 13 during the following periods (“Restricted Periods”):</p> <p>No Increase in net loading on Gonzales Bank 3:</p> <ul style="list-style-type: none"> • 6:00 am to 9:00 pm April through October (some exceptions may apply) <p>No Increase in net loading on Gonzales Bank 4:</p> <ul style="list-style-type: none"> • 7:00 am to 10:00 pm April through October (some exceptions may apply)
7.	Scheduling	<p>For Projects that are capable of responding to a dispatch instruction:</p> <p>Buyer may dispatch the Project to deliver Distribution Services up to the Contract Capacity on a day-ahead basis. Buyer will provide a dispatch instruction to Seller by 8:00 a.m. PPT the day before a dispatch in a manner to be determined by Buyer in its sole discretion, which may include verbal or electronic notification. Seller shall, at its own cost, install all equipment and communications systems necessary to implement and respond to Buyer’s dispatch instruction.</p> <p>For Projects that are not capable of responding to a dispatch instruction:</p> <p>[For purposes of calculating the Project’s Distribution Services Factor in the Monthly Payment, Buyer will provide notice to Seller by 8:00 am PPT the day before Buyer requires Distribution Services of the amount of Distribution Services required, up to the Contract Capacity.</p>
8.	Communications Systems and Equipment	<p>Seller shall install communications systems and equipment for the Project to enable Buyer to remotely monitor the status of the Project at all times during the Delivery Term on an aggregate and individual unit basis, and which permits Buyer to have real time information access to the operations of the Project, including the ability to measure the real time load decrease and/or increase.</p> <p>In the event that during the term of the agreement, Buyer develops its own</p>

		system that allows Buyer to exercise greater monitoring or more efficient dispatch of the Project, Seller shall enable its equipment and system to interface with Buyer's system such that Buyer may monitor and dispatch the Project through Buyer's system.
9.	Restricted Periods	Within Seller's monthly invoice, Seller shall submit to Buyer an attestation stating that the Project did not increase or reduce net loading on the specified circuits during the Restricted Periods for that month.
10.	Failure to Comply with Restricted Periods	For each day the Project increases or reduces net loading on the specified circuits during a Restricted Period, Seller will pay Buyer the product of (a) the maximum amount of kW that the Project increased/decreased load for that day, multiplied by (b) the ratio of (i) the then highest monthly Contract Price for the calendar year, divided by (ii) the number of days in the applicable month.
11.	Operational Control	Notwithstanding Seller's obligations to deliver Distribution Services, Seller will have operational control of the Project and be responsible for operation and maintenance of the Project. Buyer will not bear any costs related to ownership, operation, scheduling, dispatch, or maintenance of the Project.
12.	Project Site and Customers	<p>Seller shall execute all necessary forms, documentation, and agreements in order to secure all Sites and/or Customers necessary to deliver Distribution Services to Buyer. The terms and conditions of the agreements Seller has for the Site and/or with Customers are independent of Buyer, and Buyer shall not have any responsibility or incur any liability pursuant to such agreements.</p> <p>At any time during the Delivery Term, Seller may remove, replace, or add any unit associated with a Site/Customer, provided that any such change shall not modify the Distribution Services, and provided further that any such change shall be made in accordance with the safety provisions of the agreement.</p> <p>Prior to the Initial Delivery Date, Seller shall provide Buyer a list identifying all Sites and Customers comprising the Project that may deliver Distribution Services. For each Site/Customer, Seller must satisfy the criteria of incrementality and meet the measurement and verification requirements for such Site or Customer. Buyer will verify with Seller which Sites/Customers are eligible to deliver Distribution Services prior to the Initial Delivery Date.</p> <p>During the Delivery Term, no less than 15 days prior to a Delivery Month, Seller will provide Buyer an updated Site/Customer list if any Customers comprising the Project change. For each updated Site/Customer, Seller must satisfy the criteria of incrementality and meet the measurement and verification requirements for such Site or Customer. No less than 5 days</p>

		<p>prior to a Delivery Month, Buyer will verify with Seller whether the updated Sites/Customers are eligible to deliver Distribution Services.</p> <p>Any and all marketing materials developed by Seller that reference Buyer will be subject to prior written approval by Buyer. Seller is responsible for all marketing activities to Customers, provided that Buyer will provide [0, 50, 200] [Seller to designate] hours of customer representative time to aid in making introductions for Seller’s purpose of customer acquisition.</p>
13.	Interconnection	<p>The Project is interconnected to circuits or loads or associated with load facilities that are electrically interconnected to one of the following feeders at the Rincon substation:</p> <ul style="list-style-type: none"> • Gonzales Bank 3 • Gonzales Bank 4 <p>Seller shall interconnect the Project in accordance with the requirements and terms and conditions set forth in the Utility Distribution Company’s applicable tariffs, and if applicable, the Participating Transmission Owner’s applicable tariffs and the CAISO tariff, in order to safely and reliably deliver Distribution Services to Buyer. Seller shall be responsible for all delays, costs and expenses associated with such interconnection.</p>
14.	Initial Delivery Date (IDD)	June 1, 2021. Failure to meet the Initial Delivery Date will be an Event of Default.
15.	Delivery Term	The Delivery Term will be 5 years from the Initial Delivery Date. Seller is required to comply with Restricted Periods through October 30, 2025.
16.	Critical Milestones	<p>Seller shall cause the development and construction of the Project to meet each of the following (“Critical Milestones”) by the date set forth: [Seller to designate milestone dates]</p> <p>(i) 50% of Customer acquisitions:</p> <p>(ii) 75% of Customer acquisitions</p> <p>(iii) 100% of Customer acquisitions:</p> <p>(iv) Site control:</p> <p>(v) Execution of interconnection agreement(s):</p> <p>(vi) Construction start:</p> <p>(vii) Commercial Operation Date:</p>

		<p>(viii) Initial Performance Test:</p> <p>Missing a Critical Milestone will be considered an Event of Default</p>												
17.	Compensation	<p>Buyer shall pay to Seller a monthly payment for the Distribution Services in each of the [Delivery Months]:</p> <p>$MPm = FPm + VPm$</p> <p>where</p> <p>MPm = Monthly Payment for Delivery Month m FPm = Fixed Payment for Delivery Month m VPm = Variable Payment for Delivery Month m</p> <p>Fixed Payment</p> <p>$FPm = CCm \times CPM \times DSFm$</p> <p>where</p> <p>$CCm$ = Contract Capacity for Delivery Month m CPm = Capacity Price for Delivery Month m $DSFm$ = Distribution Services Factor for Delivery Month m, based on the ratio of $\sum DSPi / \sum DSEi$, where:</p> <p>\sum = the sum from $i = 1$ to n, where n = number of times Buyer requires Distribution Services for a Delivery Month; $DSPi$ = the amount of Distribution Services delivered by Seller in response to Buyer's dispatch or notification i; $DSEi$ = the amount of Distribution Services Buyer requires for each dispatch or notification i ;</p> <table border="1"> <thead> <tr> <th>Ratio</th> <th>DCF</th> </tr> </thead> <tbody> <tr> <td>≥ 1.00</td> <td>100%</td> </tr> <tr> <td>≥ 0.90 and < 1.00</td> <td>Ratio</td> </tr> <tr> <td>≥ 0.80 and < 0.90</td> <td>Ratio x 50%</td> </tr> <tr> <td>≥ 0.75 and < 0.80</td> <td>0</td> </tr> <tr> <td>< 0.75</td> <td>Ratio – 0.75 (Seller will pay Buyer)</td> </tr> </tbody> </table> <p>Variable Payment</p> <p>$VPm = \sum \min (DSPi, DSEi) \times VOMm$</p>	Ratio	DCF	≥ 1.00	100%	≥ 0.90 and < 1.00	Ratio	≥ 0.80 and < 0.90	Ratio x 50%	≥ 0.75 and < 0.80	0	< 0.75	Ratio – 0.75 (Seller will pay Buyer)
Ratio	DCF													
≥ 1.00	100%													
≥ 0.90 and < 1.00	Ratio													
≥ 0.80 and < 0.90	Ratio x 50%													
≥ 0.75 and < 0.80	0													
< 0.75	Ratio – 0.75 (Seller will pay Buyer)													

		<p>where</p> <p>VOM_m = Variable Price for Delivery Month m</p>
18.	Measurement and Verification	<p>The amount of Distribution Services the Project delivers will be measured based on the Project's technology, and will include for:</p> <ul style="list-style-type: none"> • Energy storage: revenue-quality interval meter; • Demand response: CAISO baseline methodologies, based on revenue-quality Customer interval meters; • Distributed generation: revenue-quality interval meter for generation, agreed upon forecast methodology for curtailable generation; or • Energy efficiency or permanent load shift: Parties' agreed upon methodology that incorporates metering against a baseline
19.	Performance Testing	<p>The Parties will develop mutually acceptable test procedures (Performance Test).</p> <p>Prior to the Initial Delivery Date, Seller will perform an Initial Performance Test to demonstrate to Buyer that the Project is capable of delivering Distribution Services at the Contract Capacity. The Initial Performance Test may need to take into account (1) that such Initial Performance Test is occurring outside a Delivery Month and (2) the Project's ability to test alignment with the Operating Parameters given the timing and duration of the Initial Performance Test. The Initial Delivery Date will occur if Seller demonstrates the Project's delivery of Distribution Services at 100% of the Contract Capacity.</p> <p>After the Initial Delivery Date, Buyer will have the right to test the Project no more than once a calendar year to ensure that the Project is capable of delivering the Distribution Services. Seller will have a right to retest once a calendar year after a Buyer Performance Test.</p> <p>If a Performance Test shows the Project able to deliver Distribution Services at more than or equal to 85% of the Contract Capacity, but unable to deliver Distribution Services at 99% of the Contract Capacity, the Contract Capacity will be automatically reduced to the amount of Distribution Services the Project delivered in the Performance Test.</p>
20.	Seller Performance Assurance	<p>Seller shall deliver to Buyer and maintain Performance Assurance in a form acceptable to Buyer to secure its obligations under the agreement, as follows:</p> <p>(i) Project Development Security. Seller shall post Project Development</p>

		<p>Security in the form of cash or letter of credit, equal to (i) \$40/kW for new Projects or (ii) \$25/kW for existing Projects.</p> <p>(ii) Prior to IDD, Seller shall post Delivery Term Security in the form of cash or letter of credit, in an amount equal to \$40/kW Seller may apply the Project Development Security toward the Delivery Term Security.</p>
21.	Events of Default	<p>Customary provisions similar to a PG&E PPA or Capacity Storage Agreement in 2016 Energy Storage RFO and will also include the following Seller Events of Default:</p> <p>(i) Failure to meet a Critical Milestone</p> <p>(ii) Failure to meet Initial Delivery Date</p> <p>(iii) The monthly Distribution Services Factor for any calendar year averages less than 75%</p> <p>(iv) Results of a Performance Test show that the Project provides Distribution Services at less than 85% of the Contract Capacity</p> <p>(v) Seller operates during the Restricted Period more than 3 days in a calendar year</p>
22.	Force Majeure	<p>Customary provisions similar to a PG&E PPA or Capacity Storage Agreement in 2016 Energy Storage RFO. In addition, inability to obtain or retain the Site and/or Customers is not an event of force majeure.</p>
23.	Termination Payment	<p>In an Event of Default, the Non-Defaulting Party has the right to terminate this agreement, whereby the Defaulting Party will owe the Non-Defaulting Party a Termination Payment. The Termination Payment will be equal to the Project Development Security if such termination occurs prior to the Initial Delivery Date and equal to the Delivery Term Security if such termination occurs after the Initial Delivery Date.</p>
24.	Safety	<p>Seller will be required to meet certain safety standards with respect to the Project. Seller's safety obligations will reflect the agreement and Project structure, technology, and Distribution Services along with Seller's commercial relationship with the Site(s) and Customers.</p>
25.	CPUC Approval	<p>If CPUC Approval has not occurred on or before 180 days from the date on which Buyer files the agreement with the CPUC seeking CPUC Approval, then either Party may terminate the agreement.</p> <p>"CPUC Approval" means a final and non-appealable order of the CPUC, without conditions or modifications unacceptable to either of the Parties, pursuant to which the CPUC approves of this agreement in its entirety.</p>

26.	Conditions Precedent	<p>Customary provisions similar to a PG&E PPA or Capacity Storage Agreement in 2016 Energy Storage RFO, and will also include the following:</p> <p>The Initial Delivery Date shall not occur until Seller:</p> <p>(i) has constructed the Project and provided certification from an independent engineer that the Project is Commercially Operable and constructed in accordance with the safety requirements;</p> <p>(ii) has demonstrated in the Initial Performance Test that the Project is capable of delivering Distribution Services at the level set forth in Section 19; and</p> <p>(iii) has provided Buyer with a list of Site(s) and Customers comprising the Project and Buyer has verified that such Sites/Customers are incremental and eligible to provide Distribution Services.</p>
27.	Confidentiality	Customary provisions similar to a PG&E PPA or Capacity Storage Agreement in 2016 Energy Storage RFO.
28.	Dispute Resolution	Customary provisions similar to a PG&E PPA or Capacity Storage Agreement in 2016 Energy Storage RFO.
29.	Governing Law	California

Attachment B5

Appendix E – Finance Information

Finance Information

Participant Name:

Provide the following information for assessment of the financial viability of Participant. Include additional sheets and other materials with this Appendix as necessary. Financial information must be provided for the Participant and any entity providing credit enhancement or other corporate support to the Participant. As necessary, please specify whether the information provided is for the Participant, its parent or affiliate, or an entity providing security on the Participant's behalf. All capitalized terms not defined herein, shall have the meaning provided in the RFO.

Participant Financial Information

1. If available, provide three years of audited financial statements and year-to-date financial statements of Participant and/or guarantor.

In conformity with Generally Accepted Accounting Principles ("US GAAP") PG&E may be required to collect and possibly consolidate financial information from the facility, whose output is being purchased under long-term contractual arrangements. Some general guidelines for determining whether consolidation must occur include:

- 1) Determination of allocation of the entity's risks and rewards;
- 2) Proportion of expected project life being committed to PG&E; and
- 3) Pricing provisions of contract. That is, does the contract contain fixed long-term prices or does pricing vary over the term of the agreement based on market conditions or other factors.

For any Agreement that meets the applicability criteria as established by US GAAP, PG&E is obligated to obtain information from successful Participants to determine whether or not consolidation of a counterparty's financial information is required.

Attachment C

**Forecast of Expected Incremental
Administrative Costs and Preliminary
Estimate of Cost Effectiveness Cap
(Confidential)**

Attachment D

Confidentiality Declaration

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

**DECLARATION SUPPORTING CONFIDENTIAL DESIGNATION
ON BEHALF OF
PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)**

1. I, Mark Esguerra, am the Director of Integrated Grid Planning & Innovation at Pacific Gas and Electric Company ("PG&E"), a California corporation. Roy Kuga, the Vice President of Grid Innovation and Integration of PG&E, delegated authority to me to sign this declaration. My business office is located at:

Pacific Gas and Electric Company
77 Beale Street, Mail Code B9C
San Francisco, CA 94105

2. PG&E will produce the information identified in Paragraph 3 of this Declaration to the California Public Utilities Commission ("CPUC") or departments within or contractors retained by the CPUC in response to a CPUC audit, data request, proceeding, or other CPUC request.

Name or Docket No. of CPUC Proceeding (if applicable): R.14-10-003 (see D.16-12-036);
PG&E Advice Letter 5096-E-A

3. Title and description of document(s): Attachment C: Forecast of Expected Incremental Administrative Costs and Preliminary Estimate of Cost Effectiveness Cap (Confidential)
4. These documents contain confidential information that, based on my information and belief, has not been publicly disclosed. These documents have been marked as confidential, and the basis for confidential treatment and where the confidential information is located on the documents are identified on the following chart:

Check	Basis for Confidential Treatment	Where Confidential Information is located on the documents
<input type="checkbox"/>	<p>Customer-specific data, which may include demand, loads, names, addresses, and billing data</p> <p>(Protected under PUC § 8380; Civ. Code §§ 1798 <i>et seq.</i>; Govt. Code § 6254; Public Util. Code § 8380; Decisions (D.) 14-05-016, 04-08-055, 06-12-029)</p>	
<input type="checkbox"/>	<p>Personal information that identifies or describes an individual (including employees), which may include home address or phone number; SSN, driver's license, or passport numbers; education; financial matters; medical or employment history (not including PG&E job titles); and statements attributed to the individual</p> <p>(Protected under Civ. Code §§ 1798 <i>et seq.</i>; Govt. Code § 6254; 42 U.S.C. § 1320d-6; and General Order (G.O.) 77-M)</p>	
<input type="checkbox"/>	<p>Physical facility, cyber-security sensitive, or critical energy infrastructure data, including without limitation critical energy infrastructure information (CEII) as defined by the regulations of the Federal Energy Regulatory Commission at 18 C.F.R. § 388.113</p> <p>(Protected under Govt. Code § 6254(k), (ab); 6 U.S.C. § 131; 6 CFR § 29.2)</p>	
<input checked="" type="checkbox"/>	<p>Proprietary and trade secret information or other intellectual property and protected market sensitive/competitive data</p> <p>(Protected under Civ. Code §§3426 <i>et seq.</i>; Govt. Code §§ 6254, <i>et seq.</i>, e.g., 6254(e), 6254(k), 6254.15; Govt. Code § 6276.44; Evid. Code §1060; D.11-01-036)</p>	<p>Entirety of Attachment C – Forecast of Expected Incremental Administrative Costs and Preliminary Estimate of Cost Effectiveness Cap (Confidential).</p>
<input type="checkbox"/>	<p>Corporate financial records</p> <p>(Protected under Govt. Code §§ 6254(k), 6254.15)</p>	

Third-Party information subject to non-disclosure or confidentiality agreements or obligations

(Protected under Govt. Code § 6254(k); see, e.g., CPUC D.11-01-036)

Other categories where disclosure would be against the public interest (Govt. Code § 6255(a))

5. The importance of maintaining the confidentiality of this information outweighs any public interest in disclosure of this information. This information should be exempt from the public disclosure requirements under the Public Records Act and should be withheld from disclosure.
6. I declare under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge.
7. Executed on this 1st day of May, 2018 at San Francisco, California.



Mark Esguerra
Director, Integrated Grid Planning & Innovation
Pacific Gas and Electric Company

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

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