

Mid-Term Reliability Request for Offers (RFO) – Phase 3 Participants' Webinar

February 15, 2023



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Q&A / Audio Replay

- At any time during this presentation participants should email their questions to Solicitation mailbox: MidTermRFO@pge.com
- There will be time to answer questions at the end of the webinar
 - PG&E may not address all of the questions during the Q&A portion of the webinar
 - After the webinar, PG&E will compile and post a Q&A document on PG&E's website at: <http://www.pge.com/rfo/midtermrfo-phasethree>
- The audio portion of the webinar will also be posted on PG&E's website as noted above



Document Conflicts

- This presentation is intended to be a summary level discussion of the information and requirements established in the Solicitation materials (it does not include all of the detailed information in the Solicitation materials).
- To the extent that there are any inconsistencies between the information provided in this presentation and the requirements in the Solicitation materials, the Solicitation materials shall govern.
- PG&E encourages participants to carefully review the **Mid-Term Reliability RFO – Phase 3 Protocol and Agreements**.
- If Participants have questions regarding the Solicitation documents, PG&E asks Participants to seek clarity by submitting their questions to the Solicitation mailbox (MidTermRFO@pge.com) prior to submitting an Offer.



Objective & Agenda

- The purpose of this webinar is to provide information to Participants who may submit Offers into PG&E's Mid-Term Reliability RFO – Phase 3.
- Topics
 - Solicitation Schedule
 - Independent Evaluator
 - Solicitation Overview
 - Eligibility Requirements
 - Agreement Overview
 - Offer Submittal Overview
 - Intermission
 - Q&A



Solicitation Schedule

Date/Time	Event
February 15, 2023	Participants' Webinar
March 16, 2023 at 1PM (PPT)	Deadline for Participants to submit Offers via Power Advocate
By May 1, 2023	PG&E notifies selected Participants of Shortlist Status
By May 3, 2023	Deadline for Shortlisted Participants to accept Shortlist status
Q3 2023	Target Agreement Execution
Q4 2023	Target Advice Letter filing for CPUC approval

* PG&E will look to notify Participants of Shortlist status earlier than May 1 if possible



Independent Evaluator (IE)

- Primary role of the IE is to:
 - Monitor solicitation processes to ensure fair and equal treatment of all potential counterparties.
 - Monitor evaluation processes to ensure PG&E has implemented methodology as described and that offers are treated consistently
 - Report on Solicitation process and proposed transactions to the CPUC when filed for CPUC approval.
- The IE may review all proposal data and communications with Participants
- Mid-Term Reliability RFO – Phase 3 IE is Merrimack Energy.
 - Wayne Oliver & Keith Oliver: MerrimackIE@merrimackenergy.com

Solicitation Overview



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Overview of Mid-Term Reliability RFO – Phase 3

- PG&E seeks resources to provide system-level qualifying **September** net qualifying capacity (NQC) between the dates of June 1, 2024 and June 1, 2028, depending on the category. While PG&E prefers offers for resources that meet the online dates noted above, PG&E will accept offers for resources with online dates through June 1, 2030. All resources will be expected to be considered incremental in counting towards PG&E’s procurement responsibilities, as specified in the Decision.
- PG&E will accept offers for 3rd Party Owned projects and Utility Owned projects.
- PG&E is soliciting offers in all procurement categories in Phase 3:
 - Zero-emissions generation, generation paired with storage, or demand response resources
 - Firm Zero-emitting resources
 - Long-duration storage resources
 - Any other non-fossil fueled resources
- PG&E is soliciting Utility Owned Offers using a Build Own Transfer (BOT) term sheet in the following categories
 - Long-duration storage resources
 - Any other non-fossil fueled resources (specifically storage)



Phase 3 Products and Resources

Procurement Category	Example Eligible Resources	Delivery Term (Years)	Minimum Size (MW)	Required Online date
Zero-Emitting	Standalone RPS, Standalone Storage, Hybrid and Co-located RPS and Storage	10 - 15	10	By June 1, 2025
Firm Zero-Emitting	RPS-eligible Geothermal, Biomass	10 - 20	10	By June 1, 2028 (Accepting offers to June 1, 2030)
Long duration storage	Pumped Hydro Storage, Lithium-ion, Flow Battery, Compressed Air Energy Storage, etc.	10 - 20	10	By June 1, 2028 (Accepting offers to June 1, 2030)
Any other type of non-fossil-fueled resource	Standalone Storage, Standalone RPS, Hybrid and Co-located RPS and Storage	10 - 15, or 10 - 20 (UOG)	10	By June 1, 2027 (Accepting offers to June 1, 2030)

Eligibility Requirements



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Resource Eligibility

- **Eligible Resources:**

- Zero Emitting Resources:

- (a) Be from a generation resource, a generation resource paired with storage (physically or contractually), or a demand response resource;

- (b) Be available every day from 5 p.m. to 10 p.m. (the beginning of hour ending 1800 through the end of hour ending 2200), Pacific Time, at a minimum; and

- (c) Be able to deliver at least 5 megawatt-hours of energy during each of these daily periods for every megawatt of incremental capacity claimed.

- Firm Zero Emitting Resources: RPS-eligible resource that has at least an 80% capacity factor, must not be use limited or weather dependent, cannot include storage

- Long Duration Storage Resources: must be able to deliver at maximum capacity for at least 8 hours

- Other Non Fossil Fueled Resources: Standalone RPS, standalone storage, hybrid, and co-located projects that are able to come online by June 1, 2030 and meet all applicable rules to count for Resource Adequacy

- **All Projects will be In-front of the meter projects except Demand Response.**



Resource Eligibility Cont.

- **Project Size:** The minimum size is 10 MW
- **Site Control:** Participants must demonstrate site control at the time of Offer Submission.
- **Performance & Operational Requirements:** Projects must meet the applicable CPUC and CAISO requirements to qualify for RA. The exception is the renewable generation component of paired zero emitting offers which can be Energy Only.
 - Projects must meet any other requirements that will enable PG&E to receive all the RA benefits
- **Electric Interconnection:** Participants must have documentation showing at a minimum that the Project is in the CAISO interconnection queue and on track to receive Full Capacity Deliverability Status (FCDS)
 - Projects will be evaluated qualitatively on their interconnection status. PG&E will prefer projects that are more advanced in the interconnection process with greater certainty on the ability to meet the online date requirements and greater certainty on transmission upgrade costs.
- **Incrementality:** Resources must be incremental to the 2019-2020 IRP RESOLVE/SERVVM baseline used in need determination.
 - Resources would need to be contracted and approved by the Commission after June 30, 2020

Agreement Overview



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General Guidelines

Procurement Category	Agreement Type	Offer Form
Zero Emitting	<ul style="list-style-type: none"> • Standalone RPS: Intermittent RPS PPA • Standalone storage: LTRAA w/ ES or LTRAA • Hybrid: Co-located Zero Emissions PPA AND Hybrid zero emitting compensation structure • Co-located: Co-located Zero Emissions PPA 	<ul style="list-style-type: none"> • Standalone RPS: Appendix A4 • Standalone Storage: Appendix A3 • Hybrid: Appendix A1 • Co-located: Appendix A1
Firm Zero Emitting	<ul style="list-style-type: none"> • Firm Zero Emissions PPA 	<ul style="list-style-type: none"> • Appendix A2
Long Duration Storage	<ul style="list-style-type: none"> • LTRAA w/ Energy Settlement • LTRAA • Build Own Transfer term sheet (UOG) 	<ul style="list-style-type: none"> • Standalone Storage: Appendix A3 • Build Own Transfer (UOG): Appendix A5
Other Non-Fossil Fueled Resources	<ul style="list-style-type: none"> • Intermittent RPS PPA • LTRAA w/ Energy Settlement • LTRAA • Build Own Transfer term sheet (UOG) 	<ul style="list-style-type: none"> • Standalone RPS: Appendix A4 • Standalone Storage: Appendix A3 • Build Own Transfer (UOG): Appendix A5

Long Term RA Agreement with Energy Settlement (LTRAA w/ ES)



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Transaction

- Form agreement is very similar to previous storage solicitation form
- **Product:** All Capacity Attributes associated with the operational characteristics specified in Appendix III
 - System and local RA, plus any future defined characteristics that can be applied to Compliance Obligations
 - Seller owes PG&E any attribute (current or future) that can be calculated from these characteristics
- Seller is Scheduling Coordinator
 - Seller retains CAISO revenues



Delivery of Product

- Seller must submit Supply Plans for all Capacity Attributes of the Product in each Compliance Showing
- If all Capacity Attributes of the Product are not delivered, the Payment Quantity will be reduced proportionately. Buyer pays for the Confirmed Quantity
- Example of Confirmed Quantity calculation:

Payment Quantity	10 MW
Sum of Capacity Attributes of Delivered Quantities	7 MW
Sum of all Capacity Attributes of Product	10 MW

$$\text{Confirmed Quantity} = (7 \text{ MW}/10 \text{ MW}) \times 10 \text{ MW} = \mathbf{7 \text{ MW}}$$



Term, Early Termination & Events of Default

Early Termination Rights

- Either party may terminate if CPUC Approval is not received within 180 days of the filing date for approval

Events of Default

- Material misrepresentation in metering, Supply Plan or Notice of delivery of Product
- Failure to achieve Initial Delivery Date by Guaranteed Initial Delivery Date for any reason unless due solely to an event of Force Majeure
- Seller must deliver an average of at least 80% of the Payment Quantity from the Project over rolling 12 months



Compensation

- **Compensation:** Monthly Payment in \$/kW-month based on Confirmed Quantity minus Energy Settlement
- **Energy Settlement**
 - Requires Seller to pay PG&E the difference between the highest priced hours and the lowest priced hours each day
 - Provides PG&E with the energy arbitrage value of the resource
- For any day, Energy Settlement is based on the “z” highest DA Energy Prices, with “z” representing the duration in hours of the resource
 - Payment Quantity * Max (0, ((Highest DA Energy Price – (Lowest DA Energy Price / round trip efficiency)) – VOM))
 - Seller bids VOM value as part of Offer Form

Intermittent Renewables Agreement (Intermittent RPS PPA)



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Transaction

- Intermittent RPS PPA is for standalone intermittent RPS projects
 - To be paired with other standalone storage for the Zero-Emitting procurement category, OR
 - To be used as other non-fossil fueled resources
- Product
 - All Energy, Green Attributes, and Capacity Attributes associated with the Project
- Seller acts as Scheduling Coordinator
 - Seller responsible for CAISO revenues and charges



General commercial terms

- **Contract Quantity**
 - Seller commits to generating a certain amount of Energy every contract year
 - PG&E will pay less for any amount generated above Contract Quantity in a Contract Year
- **Guaranteed Energy Production**
 - Seller must generate at least 70% of Contract Quantity every year or pay damages for any shortfall
- **Renewable Energy Credits**
 - Seller will ensure the facility is able to generate RECs
- **Events of Default**
 - Failure to generate any Energy in a contract year
 - Failure to meet GEP and cure with payment of damages



Compensation

- **Seller provides two \$/MWh prices:**
 - Day Ahead Contract Price
 - Meter Contract Price
- **Contract has an Energy Settlement every month:**
 - Day Ahead Payment minus Market Price Payment, plus
 - Meter Payment
- If Energy Settlement is positive, PG&E owes Seller the Energy Settlement;
- If Energy Settlement is negative, Seller owes PG&E the absolute value of Energy Settlement



Day-Ahead Payment minus Market Price Payment

- Way for PG&E to capture CAISO market revenues
 - If Market Price $>$ Day-Ahead Contract Price, Seller pays PG&E that difference
 - If Market Price $<$ Day-Ahead Contract Price, PG&E pays Seller that difference
- **Day-Ahead Payment:** Day-Ahead Contract Price multiplied by Day-Ahead Quantity
 - Day-Ahead Quantity Defined as CAISO Day-Ahead PIRP Forecast
 - Settlement occurs regardless of whether resource generates or not
- **Market Price Payment:** Market Price multiplied by Day-Ahead Quantity
 - Market Price is day ahead price at the Existing Zone Generation Trading Hub (e.g., NP15, SP15, or ZP26)
- Settlement still occurs for negative prices, but utilizes a market price of \$0/MWh (PG&E does not incur cost of negative prices)



Meter Payment

- Meter Quantity is based on actual generation
- Utilizes traditional framework of tying payment to actual generation



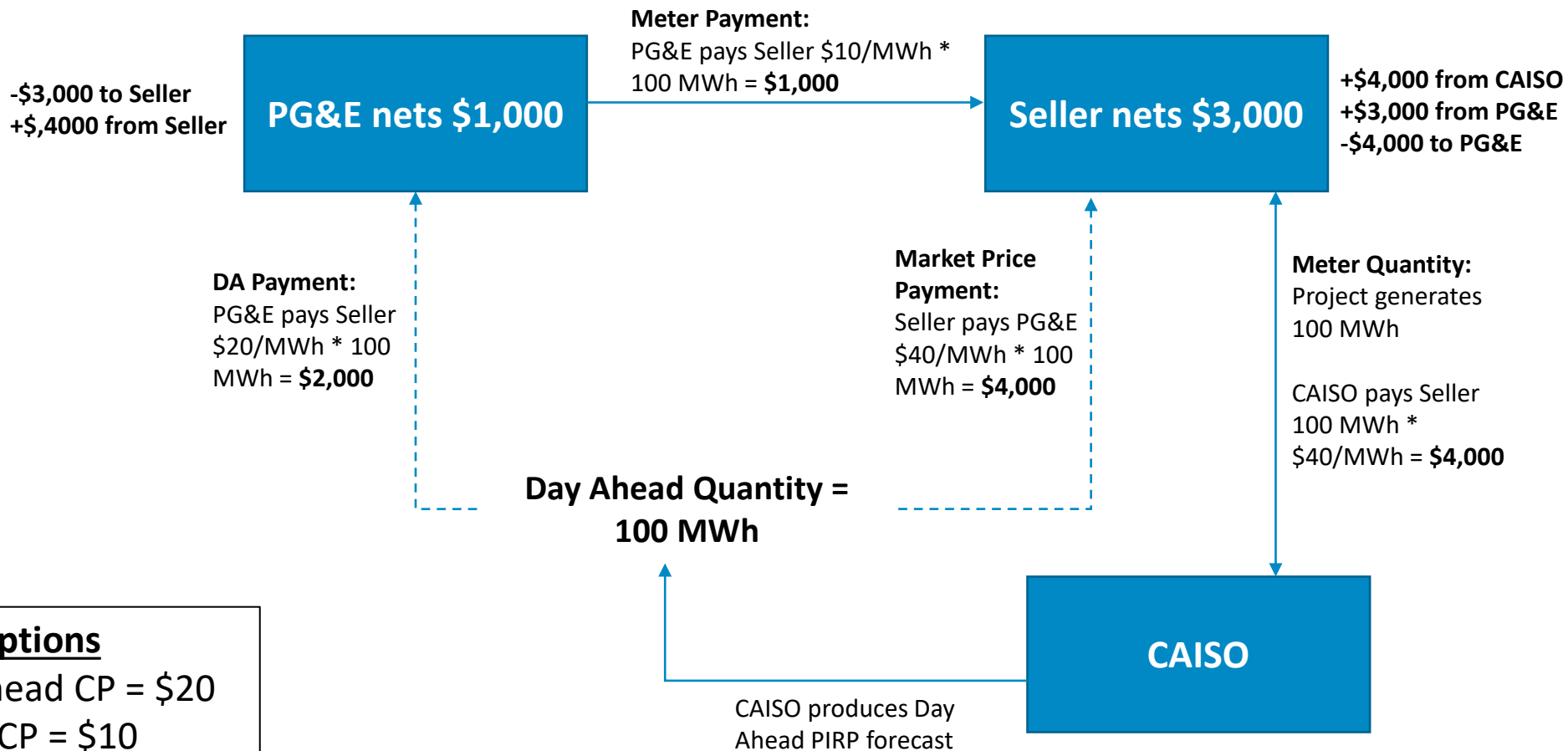
Example Energy Settlement

- Since the Energy Settlement is negative, Seller owes PG&E \$1,000 for this interval

Day-Ahead Quantity	100 MWh	
Day-Ahead Contract Price	\$20 /MWh	
Market Price	\$40 /MWh	
Day-Ahead Payment minus Market Price Payment	(\$2,000)	
Meter Quantity	\$100 MWh	
Meter Contract Price	\$10 /MWh	
Meter Payment	\$1,000	
Energy Settlement	(\$1,000)	



Example Energy Settlement: Flow of funds



Assumptions
Day-Ahead CP = \$20
Meter CP = \$10
DA price = \$40

Co-located Zero Emissions PPA



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Co-located Zero Emissions PPA

- Co-located Zero Emissions PPA is for a RPS resource co-located with a storage resource behind the same point of interconnection
 - Co-located projects have two separate Resource IDs
- Co-located Zero Emission PPA combines the energy settlements from LTRAA w/ ES and Intermittent RPS PPA
- Product is all of RPS Product AND all of Storage Product
 - RPS Product is all Energy, Green Attributes, and Capacity Attributes associated with the RPS Resource
 - Storage Product is all Capacity Attributes associated with storage operational characteristics

Hybrid Zero-Emitting Compensation Structure



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Transaction

- Hybrid projects will utilize the Co-Located Zero Emissions PPA with the Hybrid Zero Emitting Compensation Structure (Appendix E2b of solicitation material)
 - Hybrid projects have one Resource ID as opposed to co-located projects, which has two Resource IDs
- Product is all of RPS Product AND all of Storage Product
 - RPS Product = All Energy, Green Attributes, and Capacity Attributes associated with the RPS Resource
 - Storage Product = All Capacity Attributes associated with the Storage Resource
- Energy Settlement is based on Proxy Quantity, which is the hourly generation profile to be submitted in the offer form

Firm Zero-Emitting (RPS Baseload)



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Transaction

- Follows the zero-emitting contract with enhanced provisions around delivering Capacity Attributes
- Product
 - All Energy, Green Attributes, and Capacity Attributes associated with the Project
- Seller acts as Scheduling Coordinator



General Commercial Terms

- **Contract Quantity**
 - Seller commits to generating a certain quantity of Energy every contract year
 - PG&E will pay less for any quantity generated above Contract Quantity in a contract year
- **Guaranteed Energy Production:** Seller must generate at least 80% of annual Contract Quantity every year or pay damages for any shortfall
- **Renewable Energy Credits:** Seller will ensure the facility is able to generate RECs
- **Capacity Attributes:** Seller owes PG&E any capacity attribute (current or future) that can be calculated from specified operational characteristics
 - Seller should include any formulas/data for how ambient conditions may affect delivery of Capacity Attributes
 - Seller's payment will be adjusted if it does not deliver the full amount of Capacity Attributes every month



Compensation (Slide 1 of 2)

- Same concept as current PG&E RPS PPAs, where PG&E pays a fixed price and receives the market revenues
- Seller provides one price:
 - Meter Contract Price (\$/MWh) paid for every MWh actually generated
 - To the extent Seller's resource can provide more flexibility/dispatchability, a different structure may be negotiated
- Seller owes PG&E market revenues based on day-ahead price at settlement point (Market Price) for every MWh generated:
 - If Market Price > Meter Contract Price, then Seller pays PG&E
 - If Market Price < Meter Contract Price, then PG&E pay Seller
- No settlement when prices are less than \$0/MWh



Compensation (Slide 2 of 2)

- Confirmed Quantity Ratio will be calculated for every month
 - Ratio of [all Capacity Attributes delivered] / [all Capacity Attributes calculated]
- Payment will be reduced proportionately if Confirmed Quantity Ratio < 1
 - No payment reduction if Confirmed Quantity Ratio is < 1 due to a planned outage during winter months (November 1 through April 30)
- Planned outages are restricted in the summer months (May 1 through October 31)



Events of Default

- Failure to achieve Initial Delivery Date by Guaranteed Initial Delivery Date for any reason unless due solely to an event of Force Majeure
- Failure to generate any Energy in a rolling 12-month period for any reason other than Force Majeure
- Failure to meet Guaranteed Energy Production (GEP) and cure with payment of damages
- Material misrepresentation in metering, Supply Plan or Notice of delivery of Product
- Failure to provide an average of at least 80% of all Capacity Attributes from the Project over a rolling 12-month period for any reason other than Force Majeure

Utility Owned Build Own Transfer Term Sheet



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Transaction

- **Product:** Minimum 10 MW power output as measured at the point of interconnection and a minimum duration of 8 hours for the long duration category
- **Compensation:** Participant will submit a Purchase Price in the Offer Form.
 - PG&E does not pay until the successful completion of all performance tests and satisfaction of all Closing conditions. At Closing, PG&E will pay 100% of the Purchase Price adjusted for the results of certain performance tests less withholding for punch list and other items for Final Project Completion.
- **Performance Guarantee:** Seller will provide Long Term Performance and Maintenance Agreement which will guarantee key operating characteristics



Project Requirements

- **Safety:**
 - All vendors involved with the project must demonstrate compliance with PG&E's Contractor Safety Program
 - Initial Site Safety Plan required by Execution Date
 - Includes description of potential hazards and risks to life, safety, public health, property, and environment
- **Specifications:** Project must be constructed following "Prudent Utility Practices." See "Storage Technology" section of BOT term sheet for definition.
- **Long Term Performance and Maintenance Agreement:**
 - Includes preventative and major maintenance work
 - Emergency Maintenance
 - Training for operations personnel
 - Monthly performance reporting
 - 24/7 US-based remote monitoring

Offer Submittal



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Offer Submittal - Documents

- Documents due at Offer Submittal (select the appropriate version for Appendix A)
 - Introductory Letter
 - Appendix A1 – A5: Offer Form
 - Appendix B: Supplemental Project Information
 - All applicable sections must be completed within Appendix B - Do not reference an attached document(s)
 - Appendix C: FERC Order 717 Waiver (If Applicable)
 - Appendix G: Safety Review Questionnaire
 - Map of Project Facilities
 - Interconnection Report or Agreement



Offer Submittal – Demand Response

- For demand response Offers, PG&E directs the Seller to fill out Appendix B to explain how the offer complies with the requirements of the Zero-Emitting category in D.21-06-035 and the FAQ.
- Sellers should reach out to PG&E through the solicitation mailbox with this information as soon as possible. PG&E will reach out the counterparty for further steps after an initial review.



Power Advocate

- Power Advocate is a third-party online platform utilized by PG&E to receive offer submittals.
- There will be four Power Advocate sites for 3rd Party Owned offers and one Power Advocate Site for Utility Owned offers, ensure you upload documents to correct site.
 - Hybrid & Co-Located Offers:
<https://www.poweradvocate.com/pR.do?okey=139428&pubEvent=true>
 - Firm Zero Emitting Offers:
<https://www.poweradvocate.com/pR.do?okey=139430&pubEvent=true>
 - Standalone Energy Storage Offers:
<https://www.poweradvocate.com/pR.do?okey=139431&pubEvent=true>
 - Standalone Energy Storage Offers:
<https://www.poweradvocate.com/pR.do?okey=139433&pubEvent=true>
 - Utility Owned - Energy Storage Offers:
<https://www.poweradvocate.com/pR.do?okey=139427&pubEvent=true>

Offer Form Instructions



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Offer Form Information

- It is strongly advised to carefully review the relevant Agreement(s) and/or Term Sheets prior to inputting data into the applicable Appendix A.
- **The data input in the applicable Appendix A will result in terms with contractual implications.**
- The Offer Form needs to be completely and accurately filled out.
- Participants who request changes in the Offer Form after the March 16th submittal date may be removed from further participation in the Solicitation.

Review the content of the “Instructions” tab carefully. These instructions need to be followed fully.

It is especially important that you enable macros before proceeding. If macros are not enabled key offer form functionality will not operate making your form unacceptable.

When you opened this workbook if this message was displayed...

...and when you clicked “Enable Editing” this message was displayed...

...then make a screen shot of the instructions in this blue box and follow these instructions to save a copy of this workbook in which you will be able to use macros embedded in this form that are essential for its proper functioning.

NOTE: If you do not see the two messages pictured above proceed to the “ENABLE MACROS” section of instructions below.

Instructions for satisfying Microsoft “SECURITY RISK” requirements:

- 1 Close this offer form and place it in a folder other than the “Download” folder; preferably in the folder where you intend to work on the form.
- 2 Right click on the name of the offer form file and select “Properties”.
- 3 At the bottom of the “General” tab check the “Unblock” box then click “OK.”

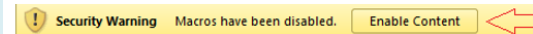
- 4 Open the offer form and continue with the instructions that follow.

ENABLE MACROS - OTHERWISE THIS WORKBOOK WILL NOT FUNCTION PROPERLY.

Macros can be enabled by clicking the “Enable Macros” button on the “Microsoft Excel Security Notice” that is displayed before the form opens...



...or by clicking the “Enable Content” button that is sometimes displayed at the top of the screen when the form first opens.



Important Notes

1. **Follow the instructions on the “File Name” tab explicitly. This offer form will not be accepted if the steps outlined on that tab have not been followed!**
2. Please submit this file in **Microsoft Excel. Other versions will not be accepted.**
3. **Please save often.**
4. Do not copy-and-paste into this workbook from past offer forms as that can confound the operation of macros in this workbook.
5. The workbook is set to recalculate automatically; however, if for some reason it is not refreshed automatically, please press **F9** to refresh.
6. Please close all other Excel files while using this workbook to prevent its macros from producing unwanted interactions across open workbooks.
7. Every cell with an orange background must be filled in. As you fill these fields in, the orange background will disappear. Check that all entry fields are green.
8. If submitting multiple offers, a new offer form needs to be completed for each individual offer.
9. Participants are encouraged to take every opportunity to fully describe their proposal. The inclusion of free form blocks allows the Participant to describe aspects of their proposal in more detail. In particular, if this form does not request all the important information associated with your proposal you should utilize the free form blocks to describe your proposal in more detail.
10. If you encounter any digital or disability access issues or would like to provide PG&E with feedback or suggestions, please e-mail our ADA Support Team at ADAsupport@pge.com. The mailbox is monitored during regular business hours (M-F; 8am-5pm). We will respond to your inquiry with 1 business day.



Offer Form User Guide

General

Proceed to the “OfferInfo” tab.



Pictured here are the “OfferInfo” tab’s primary columns. The rows that are displayed may vary depending upon offer form and selection.

AGREEMENT TYPE	Var_A
Use this Variant	Yes
Project Type	
Choose your Storage Resource	
Choose your Generation Resource	
New or Expansion of existing facility - storage	
New or Expansion of existing facility - generation	
Project Location - CAISO or Import	
Project Name	
Storage component Street Address	
Storage component City	
Storage component State	
Storage component Zip	
Storage component County	
Project elevation	
Project latitude (15 to 60)	
Project longitude (-135 to -45)	
Type of Site Control - Storage component	
Generation component Street Address	
Generation component City	
Generation component State	
Generation component Zip	
Generation component County	
Type of Site Control - Generation component	



Offer Form User Guide

General

AGREEMENT TYPE	
Use this Variant	Yes
Agreement Type	Long-Term Resource Adequacy Agreement with Energy Settlement (LT RAA w/ES)
New or Existing Project	
Project Name	
Project Street Address	
Project City	
Project State	CA
Project Zip	
Project County	
Type of Site Control	Option to Lease
CAISO Resource ID (if available)	
Agreement Notes	

All fields with orange back-grounds must be populated before the form is submitted.

Orange back-grounds turn green when a required field is populated.

An “Add Variant” button is provided at the top of the “OfferInfo” tab. When clicked an additional “variant” column is added.

	Var_A	Var_B
AGREEMENT TYPE		
Use this Variant	Yes	Yes
Agreement Type	Long-Term Resource Adequacy Agreement	
Will project include any Storage component	Lithium Ion (Li Ion) Batteries	Long-Term Resource Adequacy Agree
Will project include any Renewables component	NA	Lithium Ion (Li Ion) Batteries
Will project include any Gas component	NA	NA
Energy Settlement	No	NA
New or Existing Project	New	NA
Project Name	Sunspot Energy 1	New
Project Street Address	123 Solar Highway	Sunspot Energy 1
Project City	Sunny Grove	123 Solar Highway
Project State	CA	Sunny Grove
Project Zip	93215	CA
Project County	Kern	93215
Type of Site Control	Lease	Kern
CAISO Resource ID (if available)	KERN FRONT LIMITED	Lease
Agreement Notes	No additional considerations	KERN FRONT LIMITED

One base offer and four variants can be established in a single form, constituting a total of five variants. Only five variants are allowed per interconnection point.



Offer Form User Guide

General

In a variant column a gray background indicates that information cannot be directly keyed in. Rather, gray cells in variant columns inherit the value entered in the same row in the base offer column.

AGREEMENT TYPE		
Use this Variant	Yes	Yes
Agreement Type	Long-Term Resource Adequacy Agreement	Long-Term Resource Adequacy Agree
Will project include any Storage component	Lithium Ion (Li Ion) Batteries	Lithium Ion (Li Ion) Batteries
Will project include any Renewables component	NA	NA
Will project include any Gas component	NA	NA
Energy Settlement	No	NA
New or Existing Project	New	New
Project Name	Sunspot Energy 1	Sunspot Energy 1
Project Street Address	123 Solar Highway	123 Solar Highway
Project City	Sunny Grove	Sunny Grove
Project State	CA	CA
Project Zip	93215	93215
Project County	Kern	Kern
Type of Site Control	Lease	Lease
CAISO Resource ID (if available)	KERN FRONT LIMITED	KERN FRONT LIMITED
Agreement Notes	No additional considerations	Leasehold improvements needed

Non-gray variant column cells can accept information that is different from the value entered on the same row in the base offer column.



Offer Form User Guide

General

Once a variant offer has been created it cannot be deleted. Should you wish to remove a base or variant offer from consideration change the value in the first row of the offer form from “Yes” to “No”.

AGREEMENT TYPE	
Use this Variant	No
Agreement Type	Long-Term Resource Adequacy Agreement
Will project include any Storage component	Lithium Ion (Li Ion) Batteries
Will project include any Renewables component	NA
Will project include any Gas component	NA
Energy Settlement	No
New or Existing Project	New
Project Name	Sunspot Energy 1
Project Street Address	123 Solar Highway
Project City	Sunny Grove
Project State	CA
Project Zip	93215
Project County	Kern
Type of Site Control	Lease
CAISO Resource ID (if available)	KERN FRONT LIMITED
Agreement Notes	No additional considerations

Any base offer or variant that has a value of “No” in the “Use this Variant” row will be ignored when forms submitted to PG&E are reviewed.



Offer Form User Guide

General

- PG&E directs Sellers to input an Initial Delivery Date that is the 1st of a month.
- Additionally, Column S will provide certain instructions or units to fill out the row, and Column T will provide the respondent with a chance to add any notes that may be helpful to understanding a chosen input.

Appendix A1 – Hybrid & Co-Located Offer Form Overview



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Offer Form User Guide

Appendix A1 – Hybrid & Co-Located

9

Project Type

- Row 9 is where you will choose either “Co-located” or “Hybrid”
- Please Note: Sellers should submit **SEPARATE** Offer Forms for different project types. If you select “Co-located” in the Offer Form, all of the variants in that Offer Form should be for Co-located. If you wish to additionally submit a Hybrid version of that project, please fill out and submit a separate Offer Form.



Appendix A1 - Hybrid & Co-Located Offer Form Version 2023.1.0

Add Variant

Offer ID: Will auto-populate when file name created

	Var_A	Var_B	
For Co-located			Date must be mm/dd/yyyy and be in local time
Zero Emissions Product from co-located RPS Resource + Storage Resource Projects PPA			
Contract Price			
Day Ahead Contract Price			\$/MWh
Meter Contract Price	\$10.00		\$/MWh (Variant A must have \$10/MWh)
TOTAL	\$10.00	\$0.00	

- All Offers that select the “Co-Located” will automatically be required to fill out information for Variant A & B.

- All Offers will need to fill out a Gen Profile for the renewable component.



- Hybrid Offers will need to fill out an additional Gen Profile tab that is intended to capture the output of the full project in addition to filling out the Gen Profile tab of just the renewable version. The following message pops up when “Hybrid” is chosen for Project Type

AGREEMENT TYPE	
Use this Variant	Yes
Project Type	Hybrid
Choose your Storage Resource	
Choose your Generation Resource	
New or Expansion of existing facility - storage	
New or Expansion of existing facility - generation	
Storage Project Location - CAISO or Import	
Generation Project Location - CAISO or Import	
Project Name	
Storage component Street Address	

Two Gen Profiles Req'd

i You must fill out two Generation Profile tabs:

1. Gen Profile
2. Gen Profile Hybrid

OK

Appendix A2 – Firm Zero-Emitting Offer Form Overview



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Offer Form User Guide

Appendix A2 – Firm Zero-Emitting

- The Agreement Type is locked at Firm Zero-Emitting

9	Agreement Type	Firm Zero-Emitting
---	-----------------------	---------------------------

- This Offer Form also requires the Seller to fill out a Gen Profile tab for all offers.

Instructions	OfferInfo	GenProfile	File_Name
--------------	-----------	------------	-----------

- Different from the Hybrid & Co-Located Offer Form, Appendix A2 asks for an Expected Monthly Capacity Value with annual degradation percentage starting in row 95

95	Expected Monthly Capacity Value		
96	January (MW)	0.00	MW
97	February (MW)	0.00	MW
98	March (MW)	0.00	MW
99	April (MW)	0.00	MW
100	May (MW)	0.00	MW
101	June (MW)	0.00	MW

Appendix A3 – Standalone Energy Storage Offer Form Overview



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Appendix A3 – Standalone Energy Storage

- Long Duration Storage projects and 4-hour storage projects from will fill out the same Offer Form, Appendix A3.
- Storage projects may submit a single Offer Form with variants for both the Long Duration Storage category and the Other non-fossil fuel category
 - Sellers are directed to indicate in row 90 whether the variant is intended for the Long Duration Storage category or not. This input can change from “Yes” or “No” in separate variants in the same Offer Form.

89

STORAGE OPERATIONAL CHARACTERISTICS

90

Is this a long duration storage variant?

Select from dropdown

- If Long Duration Storage is chosen, participants will have the option of a delivery term up to 20-years

TRANSACTION	
Delivery Term (10-20) years	
Initial Delivery Date	



Offer Form User Guide

Appendix A3 – Standalone Energy Storage

- LT RAA w/ES or LTRAA can be selected for the Agreement Type
- Select the storage technology from the dropdown

9	Agreement	LTRAA with ES
10	Storage Technology	Choose from dropdown

- Payment Quantity (MW) should reflect the Payment Quantity of the LTRAA w/ES or LTRAA

149	Storage Payment Quantity	(MW)
-----	--------------------------	------

Appendix A4 – Standalone Intermittent Renewables Offer Form Overview



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Appendix A4 – Standalone Intermittent Renewables

- All Offers will have Variant A with a Meter Contract Price of \$10. Please “Add Variant” to submit an offer with a different Meter Contract Price if needed

Appendix A4 - Standalone Intermittent Renewables Offer Form
Version 2023.1.0

Offer ID: Will auto-populate when file name created

Var_A		
Initial Delivery Date		Date must be MM/DD/YYYY and be first of
Intermittant Renewable Resource Projects PPA		
Contract Price		
Day Ahead Contract Price		\$/MWh
Meter Contract Price	\$10.00	\$/MWh (Variant A must have \$10/MWh)
TOTAL	\$10.00	

- All Offers will need to fill out a Gen Profile for the renewable component.

Variant	Annual Degradation (%)													Degradation Start Date	NA
	B	HE 100	HE 200	HE 300	HE 400	HE 500	HE 600	HE 700	HE 800	HE 900	HE 1000	HE 1100	HE 1200		
Jan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Feb	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mar	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Apr	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
May	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Jun	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Navigation: Instructions | OfferInfo | **Gen Profile** | File_Name

Appendix A5 – Utility Owned Storage Offer Form Overview



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Offer Form User Guide

Appendix A5 – UOG Storage

- The UOG offer form is very similar to the 3rd Party Offer form and the instructions are the same
- The Agreement Type is hard coded as “Build Own Transfer”

7	AGREEMENT TYPE	
8	Use this Variant	Yes
9	Agreement	Build Own Transfer
10	Choose your Storage Technology	
11	If "Other" please describe the technology	
12	New or Expansion of Existing Project	
13	Project Location - CAISO or Import to CAISO	
14	Project Name	
15	Project Street Address	
16	Project City	
17	Project State	
18	Project Zip	
19	Project County	
20	Type of Site Control	



Offer Form User Guide

Appendix A5 – UOG Storage

- Same as the Energy Storage Offer Form, Appendix A5 will be used for projects that are either 4-hour duration or Long Duration Storage.
- For Appendix A5 please indicate in row 67 whether the project is a 4 hour or 8+ hour duration.

66	TRANSACTION (Capacity Attributes of Product as of Execution Date)	
67	Duration	Hours (create an additional variant to offer a separate duration)
68	Resource Adequacy (RA) Attributes	MW

- Note that the UOG Offer Form allows a 20-year Delivery Term in row 64.
- See the UOG Appendices E6 and E7 for all the additional input rows.
- Row 237 begins the Degradation inputs. The years for these inputs are gray until a Delivery Term is selected. When the Delivery Term is selected, the corresponding years will turn Orange to allow input.
- Degradation of 1) Power 2) Energy & Duration and 3) Efficiency are all required.

File Name



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Offer Form User Guide

General – File Name

When the base offer and any additional variants that were created have been fully populated proceed to the “File Name” tab. Instructions OfferInfo File_Name

Click the Generate File Name button.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1															
2															
3															
4	This offer form will not be accepted if the steps outlined below have not been followed!														
5															
6	A new File Name must be generated via the steps below for each offer submitted. If submitting multiple offers, please repeat these steps for each offer submitted.														
7															
8	These steps will create a unique, correctly formatted name that must be given to this offer form file before it is submitted. If you are submitting multiple offers and you employing "Save As" on a form you previously populated to create a new offer it is essential that a new/different file name be generated for each additional offer you create.														
9															
10	When you are ready to submit this form...														
11															
12	1) Click this button ► Generate File Name														
13															
14	2) This text ▼ is the required name for this file. Click the Save File button to complete.														
15															
16	<input type="text"/> ◀ Save This File														
17															
18	3) Once you have named this offer form via the steps above and submitted this form to PG&E keep it unchanged in a secure location where you can refer to it should PG&E have questions. If a PG&E representative contacts you regarding this offer form they will reference the file name.														
19															
20	These instructions must be exercised just prior to actual submission of the form. The file name composed above must be created after you have finalized the rest of the form.														
21															
22															


Offer Form User Guide

General – File Name

The file name field will populate. Click the  button.

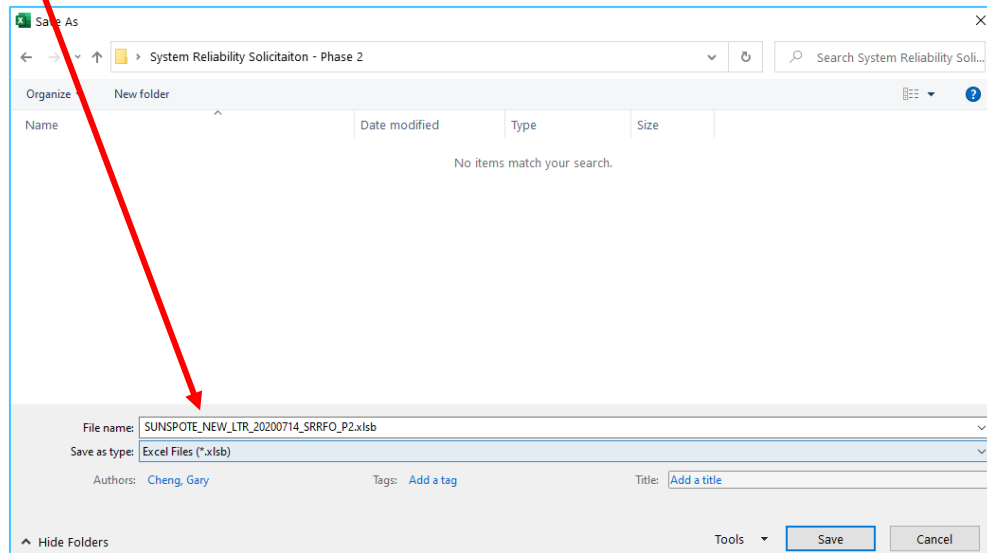
1) Click this button ► 

2) This text ▼ is the required name for this file. Click the Save File button to complete.



3) Once you have named this offer form via the steps above and submitted this form to PG&E keep it unchanged in a secure location where you can refer to it should PG&E have questions. If a PG&E representative contacts you regarding this offer form they will reference the file name.

The generated file name will be displayed in a file “Save As” panel. Navigate to the location where you wish to save the file. Do not change the file name. The name of the file must be the same as the name in the field on the “File Name” tab when the form is submitted. Click “Save”.





Offer Submittal Reminders

- The data input in the applicable Appendix A will result in terms with contractual implications.
- Offer Package must be complete at time of submission
 - Failure to provide all documents may prevent PG&E from evaluating the Offer
- Participants submitting offers may submit up to **5 mutually exclusive** offer variations at a specific interconnection point:
 - Participants must use two offer forms if submitting offers for separate types of agreements (i.e. Hybrid and Co-located)



Communications and Website

- PG&E's website at <http://www.pge.com/rfo/midtermrfo-phasethree> provides everything you need to submit an offer, including (but not limited to) the following:
 - Solicitation Documents for the Solicitation
 - Solicitation Schedule
 - Agreements
- All solicitation communications should be directed to: MidTermRFO@pge.com with a copy to the Independent Evaluator at MerrimackIE@merrimackenergy.com

Intermission



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Q&A



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