

Renewable Auction Mechanism Request for Offers

RAM 5 Solicitation

Bidders' Webinar

June 11, 2014

Objective

- The purpose of this webinar is to provide information to participants who may submit Offers to PG&E's Fifth Renewable Auction Mechanism (RAM5) RFO.
- We will not discuss other procurement programs such as:
 - 2013 and 2014 RPS Solicitations
 - PV Program
 - Feed-in-Tariff Programs
 - Net Metering
 - California Solar Initiative (CSI) program

Agenda

Topics

Introduction

Eligibility Requirements

PPA Overview

Evaluation Methodology

Offer Submittal Process

Interconnection Process

Intermission

Q & A

Presenter

Chris DiGiovanni

Chris DiGiovanni

Chris DiGiovanni

Chris DiGiovanni

Wenkai Sun

Andrew Waggoner

Team

Q&A / List of Attendees / Audio Replay

- Participants should e-mail their questions to the RAMRFO mailbox at RAMRFO@pge.com
 - Questions will be answered 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: www.pge.com/rfo/RAM
- PG&E will be posting a list of attendees on PG&E's website. If you do not want your name or the name of your company published, please let us know by sending us an email to the RAMRFO mailbox at RAMRFO@pge.com by June 13
- The audio portion of the Webinar will be posted on PG&E's website at: www.pge.com/rfo/RAM

Document Conflicts

- This presentation is intended to be a summary level discussion of the information and requirements established in the RFO materials (it does not include all of the detailed information in the RFO materials).
- To the extent that there are any inconsistencies between the information provided in this presentation and the requirements in the RFO materials, the **RFO materials shall govern**.
- PG&E encourages participants to review carefully:
 - CPUC Resolution E-4655 (RAM Resolution)
 - RAM RFO Protocol dated May 29, 2014
 - Form of Power Purchase Agreement that is referenced in the Protocol
 - Monitor the Q&A link on PG&E's RAM RFO website
- Given that the Power Purchase Agreement is non-negotiable, PG&E urges bidders to ask clarifying questions regarding the PPA prior to submittal of an offer under this RFO.

Public Disclosure of Information

- By participating in the RAM RFO, each Participant acknowledges and expressly authorizes PG&E to publicly disclose the following information as required by the CPUC's RAM Decision:
 - Names of the companies that submitted Offers into PG&E's RAM RFO
 - Number of Offers received from each company
 - Number of Offers received and selected by PG&E
 - Project size
 - Participating technologies
 - Location of bids by county level shown in a map format; and
 - Progression of each executed contract's project development milestones
- Every six months PG&E will provide the CPUC an update on each project's progress toward the achievement of project development milestones

Procurement Targets for RAM RFO Solicitation

- PG&E's overall procurement target is 420.9 MW, to be procured in 5 RFOs.
- The target for this RFO is 102.8 MW.

Bucket	Example	RFO Target
Baseload	Biomass, Geothermal	10.0
As-Available non-peaking	Wind	20.0
As-Available peaking	Solar	72.8
Total		102.8

- PG&E may procure up to 20 MW or less in each product category, but no more than 122.8 MW in total
- If PG&E executes less than 102.8 MW of PPAs as a result of this RFO, then the MW target will be procured through another mechanism, as yet to be determined by the Commission.

Updates from the Fourth RAM RFO

- Offer Submission
 - Offers must be submitted through the online platform at Power Advocate.
- PPA Updates: Major
 - Moved the requirement to obtain Full Capacity Deliverability Status (FCDS) from 12/31/2021 to 12/31/2024.
 - Projects with Shared Interconnection Facilities. Sellers must provide separate high-side metering and separate step-up transformers for each project.
 - Addition of Network Upgrade Cost Cap language.
- PPA Updates: Minor
 - RAM 5 PPA language brought current with 2013 RPS PPA approved by the Commission in D.13-11-024 on November 14, 2013. Please see page 313 of the [Advice Letter 4365-E](#) that PG&E filed on February 27, 2014 for a complete list of these updates.

Updates from the Fourth RAM RFO

- Updated the Cover Sheet to reflect the following:
 - Clarification of nameplate capacity for > 3 MW and ≤ 20 MW
 - Must insert a project single line diagram
 - Contract Price updated to include the payment of Deemed Delivered Energy
 - Collateral requirements and collateral type election as described in the RAM Protocol
 - Section F: Buyer Bid Curtailment and Buyer Curtailment Orders
- Offer Form updates include:
 - Supplier Diversity questionnaire is included as the last tab of the Offer form
 - Streamlined generation profile

RAM 5 RFO Schedule

Date/Time	Event
June 11	Bidders' Webinar
June 27 by 12:00 P.M. PPT	Deadline for Participants to submit Offers through Power Advocate
September 5	PG&E notifies Selected Participants and any Waitlisted Participants
September 10	Primary and Waitlisted Participants must return signed acceptance letters
September 11	Waitlisted Participants updated regarding their status
September 16 by 1:00 P.M. PPT	Primary Participants must return signed PPA and the required documents as shown in Appendix IX of the PPA
September 23 by 1:00 P.M. PPT	Waitlisted Participants must return signed PPA and required documents as shown in Appendix IX of the PPA
October 14	PG&E executes PPAs
November 15	PG&E files Advice Letter for CPUC approval

Independent Evaluator (IE)

- Primary role of the IE is to:
 - Monitor RFO 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 RFO process and proposed transactions to CPUC when filed for CPUC approval.
- The IE may review all proposal data and communications with Participants
- RAM 5 RFO IE is Boston Pacific Group. Contacts are:
 - Frank Mossburg (fmossburg@bostonpacific.com)
 - Sam Choi (schoi@bostonpacific.com)

Eligibility Requirements

Eligibility Requirements

- Open to all new and existing RPS-eligible resources with a capacity that is greater than 3 MW and up to 20 MW.
- Existing facilities currently under contract may participate in the RFO providing that the existing contract terminates within 24 months of the expected date of CPUC approval of the RAM PPA.
- Interconnection must be within the electric distribution or transmission system of PG&E, SCE or SDG&E.
- Must have an interconnection study and an active queue position:
 - System Impact Study, Phase 1 Study, or documentation that the Project has passed the WDT or CAISO Fast Track screens at time of offer submission.
 - Study may be for a full capacity deliverability resource or energy-only.
- Site control must be demonstrated for entire delivery term under the PPA.

Eligibility Requirements

- Studies must show that commercial operation can be achieved within 24 months following December CPUC approval of the PPA; assuming November 2014 Advice Filing and December 2014 CPUC approval, commercial operation must be scheduled to occur by December 2016.
- Developer must have previously completed or begun construction of at least one other project of similar technology and capacity.
- Project must employ technology currently in use at a minimum of two operating facilities of similar capacity worldwide.
- Must not have received funds in the California Solar Initiative (CSI) or Net Energy Metering programs.
- Sellers that have previously bid projects into other solicitations may bid into the RAM 5 RFO as long as they meet RAM eligibility requirements.
- Participants may submit bids as Energy Only or with Full Capacity Deliverability Status.

Eligibility Requirements

- Projects bidding as Full Capacity Deliverability Status (FCDS) must:
 - Provide documentation that the Project has received the FCDS or is in the Phase II process of the deliverability study
 - Documentation for Pre-Cluster 5 Project:
 - the project’s Interconnection Agreement reflects the requested deliverability, and
 - evidence that the project has posted all required Interconnection Financial Security (Initial, Second, or Final) as required by the Interconnection Process.
 - Documentation for Cluster 5 or 6 Projects:
 - an executed copy of the Interconnection Study Process Agreement with the appendices attached, and
 - evidence that the project has posted the required Initial Interconnection Financial Security, including that required for any allocated Delivery Network Upgrade costs, and
 - maintain their identified deliverability request status as evidenced by the CAISO or PG&E Interconnection Queue lists.
 - Obtain Full Capacity Deliverability Status by 12/31/2024
- Projects bidding as Energy Only do not have to pursue any deliverability studies

PPA Overview

Power Purchase Agreements

- One form PPA. Terms and conditions are non-negotiable.
- Seller must sell and deliver all “Product” to PG&E. “Product” means:
 - All electric energy produced by or associated with the Generating Facility net of Station Use (and Site Host Load); and
 - All renewable attributes, Renewable Energy Credits, Capacity Attributes and Green Attributes produced by or associated with the generating facility
- Commercial operation must be within 24 months of the date on which the CPUC approves the PPA, with potential six (6) month regulatory delay.
- Sellers must provide progress development updates every six (6) months.
- Failure to meet the guaranteed commercial operation date after any excused delay is a default which would allow PG&E to terminate the PPA and collect the Project Development Security as damages for the Seller’s default.

Power Purchase Agreements

- Energy deliveries:
 - Surplus deliveries: For Full Buy/Sell transactions for As-Available Products only, PG&E will pay for energy deliveries up to 115% of the Contract Quantity in a given year.
 - Delivery shortfalls: Based on the performance characteristics of As-Available and Baseload technologies, Sellers must agree to deliver a minimum quantity, which is the Guaranteed Energy Production (“GEP”) of the Product:
 - As-Available : 160% over two consecutive years
 - Baseload: 90% over one year
 - GEP is based on contract quantity, which is the estimated amount of megawatt-hours of energy that the Project will generate on an annual basis. If Seller fails to meet GEP, then Seller may be required to pay PG&E liquidated damages. If Seller repeatedly fails to meet GEP, then PG&E may default Seller and terminate the PPA. Small Hydro projects are exempt from these minimum performance requirements.

Power Purchase Agreements

- PG&E is Scheduling Coordinator.
 - Sellers provide weather (As-Available only) and availability data and other information to PG&E
 - PG&E forecasts and schedules energy from the project
 - PG&E may assess “Forecasting Penalty” in order to offset PG&E’s imbalance costs during certain periods due to the seller’s failure to meet the data and other requirements under the PPA. Otherwise PG&E bears the imbalance energy cost risk.
- Seller must curtail energy deliveries in response to curtailment requests from the CAISO or PG&E. Review the PPA carefully to better understand under what circumstances Seller will or will not be reimbursed for curtailed energy deliveries.
- PG&E has the right to require the seller to curtail energy deliveries during the “Buyer Curtailment Period” for up to 100 hours per year and PG&E will pay for such curtailed energy at the contract price.

Power Purchase Agreements

- Excess Network Upgrade Cost Termination Right:
 - PG&E has the right to terminate the Agreement if the total aggregate Network Cost exceed 110% (minimum \$100,000 in excess costs) of the total upgrade cost indicated in studies submitted with offer; and Seller has not agreed to assume financial responsibility for the Excess Network upgrades.
- Collateral defined in the PPA as “Project Development Security” is due to PG&E within five (5) business days following CPUC approval of the PPA and must be in the form of a letter of credit or cash and in the following amounts:
 - \$60 per kW for intermittent resources
 - \$90 per kW for baseload resources
- Delivery Term Security (5% of expected total Project revenues) is performance assurance due to PG&E on the Commercial Operation Date and will be held by PG&E throughout the delivery term

Power Purchase Agreements

- Deliverability (for projects committing to provide full capacity):
 - Must provide a date upon which the Project has or is anticipated to have a Full Capacity Deliverability Status Finding
 - If seller fails to obtain full capacity deliverability status for the project by 12/31/2024, PG&E will have the right to declare an event of default, terminate the PPA, and seek damages up to the delivery term security amount
 - Energy Only TOD factors will apply to projects that price their offer with full capacity deliverability up until seller obtains a finding of full capacity deliverability

Time of Delivery (TOD) Factors

- For each hour of energy generated, Seller is paid contract price multiplied by the applicable TOD factor.
- A Seller that enters into the PPA with an Energy Only project, but later obtains a full deliverability finding through the CAISO's annual study option will continue to be paid based on the Energy Only TOD factors only.
- $\text{Payment} = \text{Contract Price} * \text{TOD Factor} * \text{MWh}$
- Definitions
 - Peak: Hours ending 16 - 21 PPT all days in the applicable Monthly Period
 - Shoulder: Hours ending 7 - 15 PPT all days in the applicable Monthly Period
 - Night: Hours ending 1 - 6, 22, 23 and 24 PPT all days in the applicable Monthly Period

Time of Delivery (TOD) Factors

Full Capacity Deliverability Status	Peak	Shoulder	Night
A. Jul – Sep	2.2304	0.8067	0.9569
B. Oct – Mar	1.1982	0.7741	0.9399
C. Apr – Jun	1.1941	0.6585	0.9299

Energy Only	Peak	Shoulder	Night
A. Jul – Sep	1.4514	0.8317	1.0144
B. Oct – Mar	1.2855	0.8312	1.0092
C. Apr – Jun	1.1327	0.7036	0.9977

The TOD Factors shown above are consistent with those shown in PG&E's 2013 RPS Protocol

Evaluation Methodology

Evaluation Methodology

- Offers will be ranked in order of cost, which will include, where applicable, estimated transmission network upgrade costs from the most recent study or interconnection agreement.
 - PPA Pricing (\$/MWh): escalation allowed, but no indexing. Best and final price must be submitted with the Offer. PG&E will evaluate based on the TOD-adjusted prices; no price refresh.
 - Transmission (\$/MWh): costs will be taken from applicable study.
 - Energy Only projects: only the costs associated with reliability network upgrades required for energy-only status will be used
 - Fully Deliverable Capacity Status projects: will use the reliability network upgrade cost and the deliverability network upgrades net of the Project's resource adequacy value
 - Costs will be levelized using PG&E's CPUC-authorized after tax weighted average cost of capital of 7.0 percent.
- PG&E will screen Offers on a “pass-fail” basis against the eligibility criteria discussed in the Eligibility Requirements section of this presentation.

Evaluation Methodology

- Full Capacity Deliverability Resources
 - Allows PG&E to use the project's capacity attributes purchased as part of the Product toward PG&E's Resource Adequacy requirement.
 - PG&E assumes that all new projects will achieve Full Capacity Deliverability Status no later than 12/31/2024 and the maximum RA benefit will be included beginning on 1/1/2025 through the remaining delivery term of the PPA.
 - Capacity benefits will be evaluated by applying the Net Qualifying Capacity (NQC) to the avoided capacity costs forecast.
 - Projects that have delivery points located in SP15 are expected to have different values than projects that have delivery points located in NP15.
- Supplier Diversity
 - PG&E will consider a Participant's status as a WMDVBE and/or an intent or policy of subcontracting with WMDVBEs as a secondary project selection criterion.
- Seller Concentration
 - The number of Offers submitted by a single Participant is not limited. However the total MW awarded in this RFO to any single Participant may be capped at 20 MW.

Offer Submittal Process and Offer Form

Keys to a Successful Proposal

- Expect a strong solicitation response
 - PG&E received 129 offer variations in the RAM 4 RFO
 - Sellers may choose the option to bid a single project with variations. Variations include:
 - Full Capacity Deliverability Status vs. Energy Only (please bid both options)
 - Size
 - Delivery Term
 - Fixed Price vs. Escalating Price
- Submit a competitively priced Offer
- Submit a complete Offer including:
 - Most recent Interconnection Study or Interconnection Agreement
 - Supplier Diversity questionnaire

Offer Price Assumptions

The price that Participant submits in the Offer must assume the following:

- Grid Interconnection Costs
 - Direct Assignment Costs: Sellers bears the Direct Assignment Costs because there is no reimbursement of these costs to Seller.
 - Network Upgrades: Seller bears the cost of financing the Reliability Network Upgrades¹ for Energy Only projects. If a Seller submits its project as fully deliverable, the Seller must also fund any upgrades required to achieve Full Capacity Deliverability Status¹.
- Credits/Benefits: Investment Tax Credits and all other benefits, credits or grants that Seller reasonably expects to apply. If the project or Seller do not ultimately benefit from any expected benefit, tax credit or other award; Seller will not be permitted to terminate the PPA or seek a price adjustment.
- Offer Price: Will be adjusted by the Time of Delivery (“TOD”) factor for each period.

¹ Developer is entitled to repayment with interest over a 5-year period following initial operation.

Offer Price Assumptions

- Generation Profile
 - Participant must provide hourly generation forecast
- Collateral Requirements
 - Factor in costs, if any, to provide Project Development Security and Delivery Term Security
- PG&E's Revenue Calculator is provided as informational only and is only an estimate
 - Calculates revenue from the energy generation profile
 - Takes into account the applicable TOD factors

Offer Submittal

- Offers must be submitted via the online platform at Power Advocate. Only accepted registrants are permitted to submit offers.
 - Register through Power Advocate at <https://www.poweradvocate.com/pR.do?okey=41845&pubEvent=true>.
 - PG&E strongly encourages you to register well in advance of Offer due dates.
- PG&E will only consider submitted Offers that, as of the submittal deadline, are complete and conforming Offers.
 - PG&E will notify Participants of error (e.g. incomplete or incorrect documents) and will allow two (2) Business days to correct.
- By submitting an Offer in this RFO, each Participant is required to abide by the confidentiality obligations specified in Section IX of the protocol document and by selecting “Yes” in the Acknowledgements and Authorizations section of the Developer Experience tab of the Offer Form.

Required Offer Submission Forms

- Offer package must be in a format as specified in the Solicitation Protocol.
- Fully Completed Offer Form; includes Developer Experience and Supplier Diversity Questionnaire. Format: MS Excel.
- Completed RAM PPA Cover Sheet (Appendix B). Format: MS Word.
- Site Control Questionnaire and Attestation (Appendix C). Format: PDF or applicable GIS data file format.
- Acknowledgement and Commitment of Site Owner (Appendix D). Format: PDF.
- Interconnection Studies. Format: PDF or MS Word.

Communications and Website

- RFO website (www.pge.com/rfo/RAM) includes everything you need to submit an offer, including (but not limited to) the following:
 - RFO Documents
 - Detailed instructions for submitting Offers(s) using Power Advocate
 - Announcements, updates and Q&A
- All Communications should be directed to: RAMRFO@pge.com with a copy to the Independent Evaluators at fmossburg@bostonpacific.com and schoi@bostonpacific.com

Offer Form Structure

- Instructions
- Appendix A1: Participant Information and Developer Experience
- Appendix A2: Product/Project Description and Contract Information
- Appendix A3: Energy Pricing
- Appendix A4: Generation Profile and Revenue Calculator
- Appendix A5: Supplier Diversity



Offer Form – Instructions

- Be sure to enable macros when opening the Offer Form.
- Instruction tab provides clear directions on completing the offer form.
- Please make sure you submit the MS Excel form. **No other formats will be accepted.**
- Each cell with a yellow background must be filled out. Once completed the yellow background will disappear.
- Red triangular tab indicate that help captions are available when you position your mouse over the field.
- Grayed out cells are auto-calculated cells.
- If the word “Complete” does not appear at the top of the page the form will be deemed invalid and returned to you.

Offer Form – Developer Experience

Counterparty Information			
Counterparty/Legal Entity Name	ABC Renewables		
Street Address	123 Main Street		
City	Renewables	State	CA Zip Code 12345
Country	USA		
Website			

Legal entity is the legal name that will be signing the PPA

Developer Information			
Developer Name:	ABC Renewables		
Street Address	123 Main Street		
City	Renewables	State	CA Zip Code 12345
Authorized Contact #1		Authorized Contact #2	
First Name		First Name	
Last Name		Last Name	
Title		Title	
Phone 1		Phone 1	
Phone 2		Phone 2	
Email		Email	

The participant must provide evidence that one member of the development team has completed at least one project of similar technology and capacity or have begun construction of a least one similar project.

Key Team Members	Project Developer	Project Title/Role	Full Legal Project Name	Technology Type	Size (MW)	Commercial Operation Date
Jane Doe	Jane Doe	Principal Developer	Solar I Project	Photovoltaic	20.00	1/1/2011
John Smith	John Smith	Project Manager	Wind I Project	Wind	20.00	
				<Choose One>		

Offer Form – Developer Experience

This section was moved from the Product Description tab .

Acknowledgement of Non-Disclosure Terms and Conditions

By selecting "Yes", Participant hereby acknowledges that it will abide by the confidentiality terms and conditions stated in Section IX of the RAM RFO Protocol Document.

Yes

Electronic Signature [Electronic Signature](#)

Acknowledgement of Waiver of Claims and Limitations of Remedies

By selecting "Yes", Participant hereby acknowledges Participant knowingly and voluntarily waives all remedies or damages at law or equity concerning or related in any way to the Solicitation as described in Section XIV of the RAM RFO Protocol Document.

Yes

Electronic Signature [Electronic Signature](#)

Attestation

By providing the electronic signature, below, Participant hereby attests that all information provided in this Offer Form and in response to this RAM RFO is true and correct to the best of Participant's knowledge as of the date such information is provided.

Yes

Electronic Signature [Electronic Signature](#)

Offer Form – Product Description



Appendix A2: Participant Proposal Project Description and Contract Information
Complete

List Missing Inputs

General Offer Information			
Total Offers	<input type="text" value="1"/>	Offer Source	RAM
Offer #	<input type="text" value="1"/>	Solicitation #	5
Variant	<input type="text" value="a (base)"/>	Bid ID	ABCRen_SunStar_Photovo_1a (base)_of_1_RAM2014_5
		Has this project previously been offered to PG&E?	<input checked="" type="checkbox"/> Yes
		Is this project currently under contract?	<input type="checkbox"/> No

Project Information	
Full Legal Project Name	SunStar II
Project Location	Merced
Street Address	456 Main Street
City	Merced
County	Merced
Latitude	<input type="text" value="37.0000000"/> degrees
Longitude	<input type="text" value="-122.0000000"/> degrees
State	CA
Zip Code	95340
CREZ (Click here for CREZ map)	<input type="text" value="Non-CREZ"/>
CREZ Location	<input type="text" value=""/>
Select Facility Status	<input checked="" type="radio"/> New
Is the Project a Qualifying Facility?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is the project site subject to restrictions under the Williamson Act?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Project Description	<input type="text" value="Please enter project description here"/>

Offer Information	
Product Type	As-Available Peaking
Transaction Type	Full Buy
Capacity Type	Full Capacity Deliverability
Guaranteed Commercial Operation Date	<input type="text" value="11/1/2016"/>
Full Deliverability Date	<input type="text" value="12/31/2024"/>
Delivery Term (months)	<input type="text" value="20.00"/> <input type="text" value="240.00"/>
Capacity (MW)	<input type="text" value="20.00"/>
Avg Pre-TOD Price (\$/MWh)	<input type="text" value="97.19"/>

Technology	
ERR Type	Photovoltaic
Solar Technology	TBD
Describe Other Solar Technology	<input type="text" value=""/>
Cooling Method	<input type="text" value=""/>
Solar Module Detail	
Company Name	TBD
Tracking and Orientation	Fixed
Model	TBD
if filed with the CEC for precertification, enter application date	

Site Control	
Type of Site Control	Own
Enter Site Control Date:	<input type="text" value="1/1/2011"/>
Site Owner Name (current):	ABC Renewables
Ownership Type over Term:	Private
Site Owner Address:	123 Main Street
Site Owner City:	Renewables
Site Owner State:	CA
Site Owner ZipCode:	12345
Site Owner Phone #:	9999999999

Technology Viability	
Commercially Proven Technology	<input checked="" type="checkbox"/> Yes
Standardized Technology	<input checked="" type="checkbox"/> Yes

Technology Operating Experience		
	Site #1	Site #2
Project Name	www.website.com	www.website.com
Location (City, St)	Merced, CA	Merced, CA
Capacity (MW)	20	20
Website		

Credit Information			
	Price	Required	Security Type
Project Development Security (\$'s)	\$60/kW	\$ 1,200,000	Letter of Credit
Delivery Term Security (\$'s)	5% of Total Revenues	\$ 371,540	Letter of Credit

Transmission & Generator Information			
Interconnecting Utility	PG&E	Interconnection Level	Transmission
Intercon Point	Los Banos	Delivery Market	NP15
Line Name / #	Los Banos	Closest Substation	Tracy
Application Status	Phase II study or equivalent complete	Interconnection Applied For?	Full Capacity Deliverability
Point Status	Does not exist & not fully permitted to construct	Direct Assignment Costs (\$)	<input type="text" value=""/>
Queue Number		Reliability Upgrade Costs (\$)	<input type="text" value="\$250,000"/>
Interconnection part of Cluster 5 or Later Studies?	<input checked="" type="checkbox"/> No	Network Upgrade Construction Time	<input type="text" value="18 months"/>
Interconnection Choice	<input type="text" value=""/>	Deliverability Upgrade Costs (\$)	<input type="text" value="\$300,000"/>
Interconnection Agreement Capacity	<input type="text" value=""/> MW	Total Upgrade Costs (\$)	<input type="text" value="\$550,000"/>
Expected I/A Date	<input type="text" value="10/14/2016"/>	Other Characteristics	
Voltage (kV)	<input type="text" value="230"/>		

Project Owners		
Name	Own %	Website URL
ABC Renewables	100%	

Submission History		
Forum	Project Name	Comments / Notes
2013 RAM #4 RFO	Renewables	
<Choose One>		
<Choose One>		



Offer Form – Product Description

Transmission & Generator Information	
Interconnecting Utility	PG&E
Intercon Point	Los Banos
Line Name / #	Los Banos
Application Status	Phase II study or equivalent complete
Point Status	Does not exist & not fully permitted to construct
Queue Number	
Interconnection part of Cluster 5 or Later Studies?	Yes
Interconnection Choice	Option A
Interconnection Agreement Capacity	MW
Expected I/A Date	10/14/2016
Voltage (kV)	230 kV
Interconnection Level	Transmission
Delivery Market	NP15
Closest Substation	Tracy
Interconnection Applied For?	Full Capacity Deliverability
Direct Assignment Costs (\$)	
Reliability Upgrade Costs (\$)	\$250,000
Network Upgrade Construction Time	18 months
Deliverability Upgrade Costs (\$)	\$300,000
Total Upgrade Costs (\$)	\$550,000
Other Characteristics	

Interconnection Choice: Select Option A or Option B

For Projects in Cluster 5 or later, enter the local deliverability network upgrade costs

Credit Information			
	Price	Required	Security Type
Project Development Security (\$'s)	\$60/kW	\$ 1,200,000	Letter of Credit
Delivery Term Security (\$'s)	5% of Total Revenues	\$ 371,540	Letter of Credit

Delivery term security is calculated after the energy pricing tab is complete

Offer Form – Energy Pricing

TOD Factors for each Fully Deliverable TOD Period

Baseload and Peaking TOD Performance Requirements

Time of Delivery (TOD) Periods & Factors

Monthly Period	1. Peak		2. Shoulder		3. Night	
	Energy	Full Deliv	Energy	Full Deliv	Energy	Full Deliv
July - September	1.4514	2.2304	0.8317	0.8067	1.0144	0.9569
October - March	1.2855	1.1982	0.8312	0.7741	1.0092	0.9399
April - June	1.1327	1.1941	0.7036	0.6585	0.9977	0.9299

Pricing Type Escalating
 Escalation Rate 2.00%

Select either fixed or escalating Price type. Escalated pricing only requires the first year price and an annual escalation rate.

Fixed pricing requires first year Price.

Contract Year Number	Contract Year Start Date (mm/dd/yyyy)
1	11/01/16
2	11/01/17
3	11/01/18
4	11/01/19
5	11/01/20
6	11/01/21
7	11/01/22
8	11/01/23
9	11/01/24
10	11/01/25
11	11/01/26
12	11/01/27
13	11/01/28
14	11/01/29
15	11/01/30
16	11/01/31
17	11/01/32
18	11/01/33
19	11/01/34
20	11/01/35

Contract Year Stop Date (mm/dd/yyyy)
10/31/17
10/31/18
10/31/19
10/31/20
10/31/21
10/31/22
10/31/23
10/31/24
10/31/25
10/31/26
10/31/27
10/31/28
10/31/29
10/31/30
10/31/31
10/31/32
10/31/33
10/31/34
10/31/35
10/31/36

Contract Capacity (MW)	Expected Annual Capacity Factor (%)	Contract Quantity: Expected Annual Net Energy (MWh)	Contract Price (\$/MWh)
20.00	2.58%	4,529	\$80.00
20.00	2.56%	4,484	\$81.60
20.00	2.53%	4,439	\$83.23
20.00	2.51%	4,394	\$84.90
20.00	2.48%	4,350	\$86.59
20.00	2.46%	4,307	\$88.33
20.00	2.43%	4,264	\$90.09
20.00	2.41%	4,221	\$91.89
20.00	2.39%	4,179	\$93.73
20.00	2.36%	4,137	\$95.61
20.00	2.34%	4,096	\$97.52
20.00	2.31%	4,055	\$99.47
20.00	2.29%	4,014	\$101.46
20.00	2.27%	3,974	\$103.49
20.00	2.25%	3,934	\$105.56
20.00	2.22%	3,895	\$107.67
20.00	2.20%	3,856	\$109.82
20.00	2.18%	3,818	\$112.02
20.00	2.16%	3,779	\$114.26
20.00	2.14%	3,742	\$116.54
2.35%		4,123	\$96.55

Offer Form – Generation Profile

IMPORTANT:

- 1) Please provide a generation profile forecast of the project's average-day net output energy production, stated in MW by hour, by month and by year. Generation entered here should exclude onsite use and should be entered in calendar year format.
- 2) The template is designed and defaulted such that the generation profile should reflect the project's average-day net output at full capacity before degradation. The template defaults that the only changes to the generation profile through the term of the contract will be caused by annual degradation.
- 3) Please run the "Calculate Expected Revenue" macro using the button in Cell AE3 after the generation profile has been completed. **Disclaimer: The revenue calculator embedded in the Offer Form provides illustrative examples only. It is not intended to be relied on for the purposes of making a decision in relation to your offer. PG&E encourages you to calculate your project's expected revenues using your own models.**

Annual Degradation (%)	0.00%
------------------------	-------

Month	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	4.7	6.7	7.1	7.4	7.6	8.1	8.0	7.7	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	6.7	9.4	11.2	11.0	10.2	10.4	10.3	11.6	7.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	10.1	13.8	14.7	15.4	14.6	14.8	14.8	14.2	13.2	10.2	0.7	0.0	0.0	0.0	0.0	0.0
Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.8	6.7	13.7	16.1	16.0	16.5	16.8	16.3	17.1	15.3	15.7	13.2	6.8	0.0	0.0	0.0	0.0	0.0
May	0.0	0.0	0.0	0.0	0.0	0.0	2.0	11.3	15.9	17.6	18.2	18.3	18.7	18.7	18.0	17.5	17.1	15.3	10.5	0.4	0.0	0.0	0.0	0.0
Jun	0.0	0.0	0.0	0.0	0.0	0.0	3.0	12.8	16.0	18.2	18.8	18.2	18.6	18.4	18.7	18.0	18.1	16.0	12.5	1.5	0.0	0.0	0.0	0.0
Jul	0.0	0.0	0.0	0.0	0.0	0.0	1.7	10.8	15.4	17.7	18.5	18.4	18.4	17.9	17.9	17.6	17.5	15.8	11.7	0.9	0.0	0.0	0.0	0.0
Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.1	7.8	14.9	17.5	17.9	18.2	17.7	17.6	17.7	17.5	16.5	14.6	8.4	0.4	0.0	0.0	0.0	0.0
Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	13.4	16.3	16.7	16.3	16.0	15.8	16.1	16.0	15.0	11.3	1.4	0.0	0.0	0.0	0.0	0.0
Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2	9.2	13.3	14.1	14.6	14.3	13.8	14.3	13.8	12.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0
Nov	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	10.2	10.8	10.1	10.1	11.0	9.9	10.2	7.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	6.9	8.2	9.2	7.4	7.6	7.8	8.6	6.2	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Calculate Expected Revenue

Instruction:

To calculate the "Expected Revenue", please ensure the following information is completed:

- 1) Full generation profile pertaining to all the contract years.
- 2) Pricing.

Expected Revenue	Total MWh	Avg Capacity Factor	Avg Post TOD-Price	Avg annual Contract Quantity(MWh)
7,430,800	90,578	2.58%	82.04	4,529

The revenue calculator embedded in the Offer Form, provides illustrative examples only. It is not intended to be relied upon for the purpose of making a decision in relation to your offer.

PG&E encourages you to calculate your project's expected revenues using your own model.

Offer Form – Supplier Diversity Information



Appendix A5: Supplier Diversity Information
 There are 7 missing inputs. Please fill in all highlighted cells.

If your business is certified by more than one agency and one of those agencies is the CPUC, please select CPUC

Supplier Diversity	
If your company has an active Supplier Diversity program you do not feel is adequately addressed or properly highlighted with these questions, please send in separate documentation with your Offer for evaluation.	
1.	Is your company a Diverse Business Enterprise? <Choose>
2a.	Does your company have a Supplier Diversity program? <Choose> Please describe program: <div style="border: 1px solid black; height: 60px; width: 100%;"></div> 1500 character limit (1500 remaining)
2b.	Does your company have a supplier Diversity Mentorship program with DBEs? <Choose> Please describe program: <div style="border: 1px solid black; height: 60px; width: 100%;"></div> 500 character limit (500 remaining)
3.	Does your company promote diverse subcontracting? <Choose> Please describe program: <div style="border: 1px solid black; height: 60px; width: 100%;"></div> 500 character limit (500 remaining)
4.	What percentage of your company's total contracting and procurement spend for the prior year was with women, minority and service disabled veteran owned businesses?
5.	What will the percentage of procurement spend for this project, SunStar II, will be spent with women, minority and service disabled veteran owned businesses over the course of the proposed PPA?
5a.	Pre COD?
5b.	Post IEDD?

Interconnection Information

Wholesale Generator Interconnection Study Processes

- Before you start...
 - Know your tariff obligations. Participant is responsible for timely applications and timely completion of applicable process.
 - Online RAM Map provides an indication of line conditions at point of interconnection.
(<http://www.pge.com/b2b/energysupply/wholesaleelectricssuppliersolicitation/PVRFO/pvmap/>)
 - **UPDATED:** Distribution level interconnection customers can submit a Pre-Application Report request form
(http://www.pge.com/includes/docs/pdfs/shared/newgenerator/retailgenerators/Rule_21_Preapplication_Report_Request_Form.pdf) to Rule21gen@pge.com to receive a current indication of line conditions/constraints and substation conditions.
- Processes
 - Fast Track
 - Independent Study
 - Cluster Study
- For future RFOs, Participants should initiate the interconnection process early, to ensure that eligibility requirements are met.

Fast Track and Independent Schedule – Application through Interconnection Agreement

CAISO Process applies to SCE and SDG&E as well, IOU processes vary slightly

Fast Track	Window	Initial Review	Supplemental Review	Interconnection Agreement	Timeline
CAISO* connections	No Window	15BD	10BD	~4 months	~6 months
PG&E connections	No Window	15BD	20BD	~4 months	~9 months

Independent Study	Window	SIS	FAS	Interconnection Agreement	Timeline
CAISO* connections	No Window	90BD	90BD	~4 months	~12 months
PG&E connections	No Window	60BD	60BD	~4 months	~16 months

Note: BD = business days

Cluster Schedule – Application through Interconnection Agreement

CAISO Process applies to SCE and SDG&E as well, IOU processes vary slightly

CAISO* Cluster Group	Application Window	Phase I	Phase II	Interconnection Agreement
5	Closed	Completed	Completed	Target April/May 2014
6	Closed	Completed	Target August 2014	Target April/May 2015
7	Closed	Target October 2014	Target August 2015	Target April/May 2016
UPDATED 8	April 2015	Target October 2015	Target August 2016	Target April/May 2017

PG&E WDT Cluster	Application Window	Phase I	Phase II	Interconnection Agreement
5	Closed	Completed	Completed	Target April/May 2014
6	Closed	Completed	Target November 2014	Target April/May 2015
7	Closed	Target October 2014	Target August 2015	Target April/May 2016
UPDATED 8	March 2015	Target October 2015	Target August 2016	Target April/May 2017

Post- Interconnection Agreement Process

- Post-Interconnection Agreement, PG&E and customer engineer, design, procure and construct (EPC) electrical interconnection (implementation kickoff could occur as late as five months following an agreed upon IA). Timeline for completion dependent on scope of capital improvements assigned to project
 - PG&E engineers capital improvements per Interconnection Agreement
 - Customer engineers electrical system on customer side of meter and any upgrades to be customer-built and deeded
- Post-EPC, PG&E, CAISO and customer coordinate a pre-parallel inspection and commissioning to achieve commercial operation
- Note some Critical Path Items:
 - Long Lead Time Material Procurement
 - Clearance Window (typically between September to April each calendar year)
 - California Public Utilities Commission (CPUC) and County Permitting (could cause a project to take an additional two to three years to complete)
 - Land acquisition
 - Environmental Evaluation and Permitting (could take two to three years to complete)

Intermission

Q & A