

Renewable Auction Mechanism Request for Offers

4th RAM Solicitation

Bidders' Webinar

June 12, 2013

Objective

- The purpose of this conference is to provide information to participants who may submit Offers to PG&E's Fourth Renewable Auction Mechanism (RAM4) RFO
- We will not discuss other procurement programs such as:
 - 2012 and 2013 RPS Solicitation
 - Feed-in-Tariff (FiT)
 - ReMat (the successor to FiT)
 - Net Metering
 - California Solar Initiative (CSI) program

Agenda

Topics

- Introduction
- Eligibility Requirements
- PPA Overview
- Evaluation Methodology
- Offer Submittal Process
- Interconnection Process
- Q & A

Presenter

Chris DiGiovanni

Chris DiGiovanni

Dennis Sullivan

Dennis Sullivan

Chris DiGiovanni

Andrew Waggoner

Team

Q&A

- Questions will be answered at the end of the Webinar
- Participants should e-mail their questions to the RAMRFO mailbox at RAMRFO@pge.com
- 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 may not address all of the questions during the Q&A portion of the Webinar.
- 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 14th
- The audio portion of the Webinar will be posted on PG&E 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-4582 (RAM Resolution)
 - RAM RFO Protocol issued May 9, 2013
 - 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 82 MW.

Bucket	Example	RFO Target
Baseload	Biomass, Geothermal	10
As-Available non-peaking	Wind	10
As-Available peaking	Solar	62
Total		82

- PG&E may procure up to 20 MW or less in each product category, but no more than 102 MW in total
- If PG&E executes less or greater than 82 MW of PPAs as a result of this RFO, then the MW target will be adjusted in the next solicitation

Technical Updates from Third RAM RFO

- No major changes
- Minor technical updates include:
 - Updated the CPUC authorized after-tax weighted average cost of capital to 7.0 percent
 - Updated the Time of Delivery factors as shown in PG&E's 2012 RPS protocol
 - The PPA cover sheet requires Sellers to specify its supplier diversity spend target for work supporting the project
 - PPA clarification to:
 - Collateral assignments
 - Insurance requirements

RAM 4 RFO Schedule

Date 2013 Time	Event
June 12	Bidders' Webinar
June 28 by 12:00 P.M. PPT	Deadline for Participants to submit Offers
September 6	PG&E notifies Selected Participants and any Waitlisted Participants
September 11	Primary and Waitlisted Participants must return signed acceptance letters
September 12	Waitlisted Participants updated regarding their status
September 17 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 24 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 4 RFO IE is Charles Adkins of Ventyx (Charles.Adkins@abb.ventyx.com)

Eligibility Requirements

Eligibility Requirements

- Open to all 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 (continued)

- Commercial operation must be scheduled within 24 months following December CPUC approval of the PPA; assuming November 2013 Advice Filing and December 2013 CPUC approval, commercial operation must be scheduled to occur by December 2015.
- 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 4 RFO as long as they meet RAM eligibility requirements

Eligibility Requirements (continued)

Participants may submit bids as Energy Only or with Full Capacity Deliverability Status

- Projects bidding as fully deliverable must:
 - Have a completed Phase I deliverability study (Phase II deliverability study if available) and have an active queue position in the CAISO's generator interconnection process

OR

Have completed a deliverability assessment in the annual process that finds the project is deliverable at the time of offer submittal

- Obtain Full Capacity Deliverability Status by 12/31/2021
- Projects bidding as Energy Only do not have to pursue any deliverability studies

PPA Overview

Power Purchase Agreements – Terms and Conditions

- One form PPA. Terms and conditions are non-negotiable
- Contract terms vary based on the Offer:
 - Price (All-in, \$/MWh)
 - Contract Term (10, 15, or 20 year)
 - Product Type (baseload, as-available non-peaking, or as-available peaking)
 - Full Buy/Sell or Excess Sale
 - Energy Only or Full Capacity Deliverability Status
 - Guaranteed Commercial Operation Date
 - Contract Capacity (MW)
 - Contract Quantity (GWh)
 - Supplier Diversity Spend Target
- 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

Power Purchase Agreements – Terms and Conditions

- 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
- 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
- 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 – Terms and Conditions

- For each hour of energy generated, Seller is paid contract price multiplied by the applicable TOD factor
- 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 various technologies, Sellers must agree to deliver a minimum quantity, which is the Guaranteed Energy Production (“GEP”) of the Product:
 - As Available Peaking: 160% over two consecutive years
 - As Available Non-Peaking: 140% 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 – Terms and Conditions

- **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**
- **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 – Terms and Conditions

- **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 12/31/2021, 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
- 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.

Time of Delivery (TOD) Factors for TOD Period

TOD FACTORS: FULL CAPACITY DELIVERABILITY STATUS TOD PERIOD

Monthly Period	Super-Peak	Shoulder	Night
Jun – Sep	2.297	1.069	0.798
Oct- Dec, Jan & Feb	0.953	0.857	0.808
Mar. – May	1.041	0.819	0.828

TOD FACTORS: ENERGY ONLY TOD PERIOD

Monthly Period	Super-Peak	Shoulder	Night
Jun – Sep	1.157	1.011	0.951
Oct- Dec, Jan & Feb	1.071	1.018	0.963
Mar. – May	0.907	0.937	0.987

The TOD Factors shown above are consistent with those shown in PG&E's 2012 RPS Protocol

Time of Delivery (TOD) Factors - Definition

Payment : Contract Price * TOD Factor * MWh

Super-Peak : Hours ending 13-20 PPT Monday - Friday in the applicable Monthly Period, except NERC Holidays¹

Shoulder : Hours ending 7 - 12, 21 and 22 PPT Monday - Friday except NERC Holidays¹; and hours ending 7-22 PPT Saturday, Sunday and all NERC Holidays¹ in the applicable Monthly Period

Night : Hours ending 1-6,23 and 24 PPT all days in the applicable Monthly Period

¹ NERC Holidays are New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day

Evaluation Methodology

Evaluation Methodology

- **Cost:** 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. Objective is to select 10 MW of the lowest-cost Offers in the Baseload and As-Available Non-Peaking product categories and 62 MW in the As-Available Peaking product category.
 - 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 (continued)

- Full Capacity Deliverability Resources

- Full Capacity Deliverability Status 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 12/31/2021 and the maximum RA benefit will be included beginning on 1/1/2022 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 robust solicitation response**
 - PG&E received 127 offer variations in the RAM 3 RFO
 - Sellers may choose the option to bid a single project with variations. Variations include:
 - Full Capacity Deliverability Status vs. Energy Only
 - 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. Seller will not be permitted to terminate the PPA or seek a price adjustment, if the project or Seller do not ultimately benefit from any expected benefit, tax credit or other award
- **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 (continued)

- **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 received by PG&E in electronic form by Friday, June 28, 2013 noon (PPT)
- E-mail all Offers to PG&E at RAMRFO@pge.com and to the I.E. at Charles.Adkins@abb.ventyx.com
- Electronic documents must be in a format as specified in the Solicitation Protocol
- 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
- Hardcopy or facsimile transmission of Offers is not acceptable
- 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 Product Description tab of the Offer Form

Required Offer Submission Forms

- Fully Completed Offer Form and Developer Experience Offer Form (Appendix A). 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
- Supplier Diversity Questionnaire (Appendix E). Format: MS Word
- Interconnection Studies. Format: PDF or MS Word

Communications and Website

- All RFO documents are available on PG&E's website at www.pge.com/rfo. Click on Fourth RAM RFO link
- Announcements, updates and Q&As will also be posted on the website
- Communications should be directed to: RAMRFO@pge.com with a copy to the I.E. at Charles.Adkins@abb.ventyx.com

Offer Form Structure

- **Instructions**
- **Appendix A1: Developer Form**
- **Appendix A2: Product Description**
- **Appendix A3: Energy Pricing**
- **Appendix A4: Generation Profile and Revenue Calculator**

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 light yellow background **must** be filled out. Once completed the light 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 Form



Appendix A1: Developer Experience

Unless otherwise provided herein, all capitalized terms shall have the meaning ascribed to them in PG&E's 2012 RAM RFO Protocol document or the applicable Agreement.

Per the CPUC Resolution E-4414 issued on August 18, 2011 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.

Developer Name: <u>ABC Solar</u>	
Address: <u>77 Main Street</u>	
City: <u>Merced</u>	State: <u>CA</u> Zip Code: <u>95340</u>
First Name of Authorized Contact: <u>John</u>	First Name of Authorized Contact: <u>Phillip</u>
Last Name of Authorized Contact: <u>Doe</u>	Last Name of Authorized Contact: <u>Joe</u>
Title of Contact # 1: <u>Principal Developer</u>	Title of Contact #2: <u>Principal Developer</u>
Phone Number # 1: <u>(209) 888-8888</u>	Phone Number #2: <u>(209) 888-8888</u>
Alt. Number (Cell) #: <u>(209) 999-9999</u>	Alt. Number (Cell) #2: <u>(209) 999-9999</u>
Email Address # 1: <u>BAMBEQ@pge.com</u>	Email Address #2: <u>BAMBEQ@pge.com</u>

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	Address
John Doe	John Doe	Principal Developer	Solar Project 1	Photovoltaic <Choose One>	20.00	1/1/2011	123 Main Street

City	State	Zip Code	Longitude	Latitude	Additional Information
Merced	CA	95340	-122	37	

Offer Form – Product Description



Complete

View Missing Inputs

Appendix A2: Participant Proposal Project Description and Contract Information

General Offer Information			
Total Offers	1	Offer Source	RAM
Offer #	1	Solicitation #	4
Variant	a (base)	Bid ID	SunStar_SunStar_Photoovo_1a (base)_of_1_RAM2013_4
		Has this project previously been offered to PG&E?	Yes

Project Information			
Full Legal Project Name	SunStar II		
Project Location	Merced		
Street Address	123 Main Street		
City	Merced	State	CA
County	Merced	Zip Code	95340
Project Description	Please provide as much detail about your project		
Select Facility Status	New	Product Type	As-Available Peaking
QF	<input type="checkbox"/>		

For existing facility, select whether it is a qualifying QF

Offer Form – Product Description

Offer Information			
Select Transaction Type	Full Buy	Capacity (MW)	20.00
Capacity Type	Full Capacity Deliverability	Avg Pre-TOD Price (\$/MWh)	141.02
Full Deliverability Date	12/31/2021	Description	
Guaranteed Commercial Operation Date	5/1/2015		
Delivery Term (months)	26.66 240.00		

Additional Information on Existing QF Projects	
QFID Number	Other information for PG&E to identify the QF project
Date Existing PPA will Terminate	
Utility	<Choose>

Transmission & Generator Information			
Interconnecting Utility	PG&E	Closest Substation	Tracy
Intercon Point	Los Banos	Interconnection Applied For?	Full Capacity Deliverability
Line Name / #	Los Banos	Direct Assignment Costs (\$)	
Application Status	Interconnection Agreement (IA) Executed	Reliability Upgrade Costs (\$)	\$250,000
Point Status	Does not exist but all material permits are in force	Network Upgrade Construction Time	24 months
Queue Number		Deliverability Upgrade Costs (\$)	\$300,000
Expected I/A Date	10/1/2012	Total Upgrade Costs (\$)	\$550,000
Voltage (kV)	230 kV	Other Characteristics	
Interconnection Level	Transmission		
Delivery Market	NP15		

Enter the reliability upgrade costs. These are the costs necessary for interconnection only

Enter the deliverability upgrade costs. These are the costs to achieve FCDS/ resource adequacy

Offer Form – Product Description

Counterparty Information			
Counterparty/Legal Entity Name	SunStar, LLC		
Street Address	55 Main Street		
City	Merced	State	CA Zip Code 95340
Country	USA		
Website	www.pge.com/rfo/RAM		

The legal entity is the legal name of who will be signing the PPA

Location Information			
Latitude	37.00000000	decimal degrees	Is the project site subject to restrictions under the Williamson Act? No
Longitude	-122.00000000	decimal degrees	
CREZ	Non-CREZ	Click here for CREZ map	Describe
CREZ Location			

The longitude and Latitude should be entered in decimal degrees rather than minutes

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	\$12,754,895	Letter of Credit

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

Offer Form – Product Description

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 provide. Yes

Electronic Signature [Electronic Signature](#)

Submission History

It was indicated above that this project has previously been offered to PG&E. Please identify the forum(s) in which the offer was previously made.

Forum	Project Name	Comments / Notes
2012 RAM #1 RFO	SunStar I	

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. Super Peak		2. Shoulder		3. Night	
	Energy	Full Deliv	Energy	Full Deliv	Energy	Full Deliv
June - September	1.157	2.297	1.011	1.069	0.95100	0.798
October - February	1.071	0.953	1.018	0.857	0.96300	0.808
March - May	0.907	1.041	0.937	0.819	0.98700	0.828

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

Fixed pricing requires that values be inputted for each term year offered

Pricing Type Escalating
 Escalation Rate 1.25%

Contract Year Number	Contract Year Start Date (mm/dd/yyyy)
1	05/01/15
2	05/01/16
3	05/01/17
4	05/01/18
5	05/01/19
6	05/01/20
7	05/01/21
8	05/01/22
9	05/01/23
10	05/01/24
11	05/01/25
12	05/01/26
13	05/01/27

Contract Year Stop Date (mm/dd/yyyy)
04/30/16
04/30/17
04/30/18
04/30/19
04/30/20
04/30/21
04/30/22
04/30/23
04/30/24
04/30/25
04/30/26
04/30/27
04/30/28

Contract Capacity (MW)	Expected Annual Capacity Factor (%)	Contract Quantity: Expected Annual Net Energy (MWh)	Contract Price (\$/MWh)
20.00	33.42%	58,560	\$125.00
20.00	33.33%	58,400	\$126.56
20.00	33.33%	58,400	\$128.14
20.00	33.33%	58,400	\$129.75
20.00	33.42%	58,560	\$131.37
20.00	33.33%	58,400	\$133.01
20.00	33.33%	58,400	\$134.67
20.00	33.33%	58,400	\$136.36
20.00	33.42%	58,560	\$138.06
20.00	33.33%	58,400	\$139.79
20.00	33.33%	58,400	\$141.53
20.00	33.33%	58,400	\$143.30
20.00	33.42%	58,560	\$145.09

Offer Form – Generation Profile

IMPORTANT:

- 1) Please provide a generation profile forecast of each month'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 first year generation profile, when entered, gets auto-populated through out with Annual Degradation given for the convenience of certain types of projects. However, this is not be enforced for all projects and Developers can freely over-write cells to give generation profile that is appropriate for their project.
- 3) Please run the "Expected Revenue" macro using the button in Cell AE3 after the generation profile has been completed.

Expected Revenue

Year 1 2015		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	Monthly Total
Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	0.0	0.0	0.0	0.0	4,960
Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	0.0	0.0	0.0	0.0	4,480
Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	0.0	0.0	0.0	0.0	4,960
Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	0.0	0.0	0.0	0.0	4,800
May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	0.0	0.0	0.0	0.0	4,960
Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	0.0	0.0	0.0	0.0	4,800
Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	0.0	0.0	0.0	0.0	4,960
Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	0.0	0.0	0.0	0.0	4,960
Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	0.0	0.0	0.0	0.0	4,800
Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	0.0	0.0	0.0	0.0	4,960
Nov	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	0.0	0.0	0.0	0.0	4,800
Dec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	0.0	0.0	0.0	0.0	4,960
Total	0	0	0	0	0	0	0	0	0	0	0	0	200	200	200	200	200	200	200	200	0	0	0	0	58,400

Expected Revenue
197,197,719
568,940
670,840
693,980
688,140
667,920
654,480
632,000
654,480

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.

Expected Revenue	Total MWh	Avg Capacity Factor	Avg Post TOD-Price	Contract Quantity(MWh)
197,197,719	1,168,800	33.33%	168.72	58,440
568,940				
670,840				
693,980				
688,140				
667,920				
654,480				
632,000				
654,480				

Interconnection Information

RFO Requirements

- For this RFO, Participants must have applied for interconnection and have applicable interconnection study complete
- For future RFOs, Participants should initiate the interconnection process early, to ensure that eligibility requirements are met
- Commercial online date is 24 months from CPUC approval of the PPA. Assuming December 2013 CPUC approval, commercial operation must occur by December 2015, with 6 month delay allowed until June 2016.
- Interconnection process must be complete for participant to deliver energy to the CAISO grid and meet obligations of the PPA
- All participants must reach commercial operation by the deadline provided for in the PPA. Participants are responsible for understanding the relevant interconnection procedures and ensuring they can interconnect within the mandated timelines¹.
- Participants that are bidding their project as fully deliverable will be required to demonstrate that they either are in or have completed the Phase II process of the CAISO deliverability study²
- Participants that have obtained a finding of full deliverability via the CAISO's annual deliverability process may bid as fully deliverable. Projects that intend to pursue full deliverability via the annual process may not bid as fully deliverable

¹ Per page 13 of the RAM protocol document

² Per page 12 of the RAM protocol document

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.
[\(http://www.pge.com/b2b/energysupply/wholesaleelectricssolicitation/PVRFO/pvmap/\)](http://www.pge.com/b2b/energysupply/wholesaleelectricssolicitation/PVRFO/pvmap/)
- Processes
 - Fast Track
 - Independent Study
 - Cluster Study

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
3	Closed	Completed	Completed	Target June 2013
4	Closed	Completed	Completed	Target June 2013
5	Closed	Completed	Target November 2013	Target April/May 2014
6	Closed	Target October 2013	Target August 2014	Target April/May 2015
7	March 2014	Target October 2014	Target August 2015	Target April/May 2016
PG&E WDT Cluster	Application Window	Phase I	Phase II	Interconnection Agreement
4	Closed	Completed	Completed	Target June 2013
5	Closed	Completed	Target November 2013	Target April/May 2014
6	Closed	Target October 2013	Target August 2014	Target April/May 2015
7	March 2014	Target October 2014	Target August 2015	Target April/May 2016

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

Intermission

Q & A