

# Renewable Auction Mechanism Request for Offers

## 2<sup>nd</sup> RAM Solicitation

Bidders' Conference

May 16, 2012

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# Objective

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- The purpose of this conference is to provide information to participants who may submit Offers to PG&E's Second Renewable Auction Mechanism (RAM) RFO or future RAM RFOs
- We will not discuss other procurement programs such as:
  - 2011 RPS Solicitation
  - PG&E's Solar Photovoltaic PPA RFO
  - Utility Owned PV Program RFO
  - Feed-in-Tariff (FIT)
  - Net Metering
  - California Solar Initiative (CSI) program

# Agenda

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## Topics

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

## Presenter

Sandy Burns  
Sandy Burns  
Sandy Burns  
Sandy Burns  
Jerilyn Gleaves  
Sandy Burns & Kelvin Yip  
Roger Pettey  
Team

# Q&A Questions Instructions

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- Questions will be answered at the end of the conference
- Use the index cards, one card per topic, for questions
- Cards should be passed over to the ends of each row. Participants on the web or on the phone should email their questions to the RAMRFO mailbox at [RAMRFO@pge.com](mailto:RAMRFO@pge.com)
- After the Conference, PG&E will compile and post a Q&A document on PG&E's website at: [www.pge.com/rfo/RAM](http://www.pge.com/rfo/RAM)
  - Any question that was not answered during the conference will be posted on PG&E's website along with the recorded presentation

# Document Conflicts

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- 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-4489 (RAM Decision), the RAM RFO Protocol issued May 1, 2012, the form of Power Purchase Agreement that is referenced in the Protocol, and to monitor the Q& A link on PG&E's RAM RFO website. Given that the Power Purchase Agreement is not to be negotiated, PG&E urges bidders to ask clarifying questions regarding the PPA prior to submittal of an offer under this RFO.

# Public Disclosure of Information

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- 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 by each company
  - number of Offers received and shortlisted by PG&E
  - project size
  - participating technologies
  - the number of Projects which passed the project viability screen
  - location of bids by county level shown in a map format; and
  - the 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 4 RFOs, to be conducted every six months
- Second RFO procurement target is 147 MW which includes the unsubscribed MWs from the first RAM RFO

Bucket	Example	RFO Target	Shortfall	Total MW
Baseload	Biomass, Geothermal	10	4	14
As-Available non-peaking	Wind	10	4	14
As-Available peaking	Solar	85	34	119
Total		105	42	147

- PG&E may procure up to 20 MW or less in each product category, but no more than 167 MW in total
- If the results from this RFO results in executing less or greater than 147 MW of PPAs, the MW target will be adjusted in the next solicitation

# Key Change from First RAM--Deliverability

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- Most significant change from the first RAM RFO is the distinction between full deliverability and energy-only
- CPUC decision on first RAM RFO required that Sellers request a finding of full deliverability; IOUs could not require Sellers to be fully deliverable if the network upgrade costs exceeded \$0
- This solicitation will distinguish between energy-only projects and fully deliverable projects
- Change impacts eligibility, offer evaluation and selection, and offer submittal sections of this presentation



# RFO Schedule

Date/Time 2012	Event
May 16	Bidders' Conference and Bidders' Forum
May 31 by 12:00 P.M. PPT	Deadline for Participants to submit Offers
August 14	PG&E notifies Selected Participants and any Waitlisted Participants
August 24	Submittal of signed PPA and required documentation by Selected Participants. Waitlisted Participants notify PG&E of their intent to remain on waitlist
August 27	PG&E notifies Waitlisted Participants if they have been selected
September 6 no later than 1:00 P.M. PPT	Selected Participants wishing to continue participating in RAM RFO submit signed PPA and required documentation
September 13	PG&E executes RAM PPAs
September 28	PG&E files Advice Letter for CPUC approval of RAM PPAs

# Independent Evaluator (IE)

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- **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**
- **Second RAM RFO IE is Charles Adkins of Ventyx**

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# Eligibility Requirements

# Eligibility Requirements

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- Open to all RPS-eligible resources with a contract or nameplate capacity that is at least 1 MW and not greater than 20 MW
- Aggregation of facilities to achieve the 1 MW minimum threshold is allowed providing each facility is at least 500 kW and all facilities interconnect within a single PNode<sup>1</sup>
- Interconnection must be within the electric distribution or transmission system of PG&E, SCE or SDG&E
- Must have an interconnection study: 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

<sup>1</sup>The CAISO Tariff defines Pricing Node (“PNode”) as “[a] single network Node or subset of network Nodes where a physical injection or withdrawal is modeled and for which a Locational Marginal Price (“LMP”) is calculated and used for financial settlements.”

# Eligibility Requirements (continued)

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- **Site control must be demonstrated for entire delivery term of PPA**
- **Commercial operation must be scheduled within 24 months following Commission approval of the PPA; assuming September, 2012 Advice Filing and October, 2012 CPUC approval, commercial operation must occur by October 2014, with 6 month delay allowed until April 2014**
- **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 RAM as long as they meet RAM eligibility requirements**

# Eligibility Requirements (continued)

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Participants may submit bids as energy-only or with full capacity deliverability status

- Projects bidding as fully deliverable must:
  - Have a completed a Phase I deliverability study (Phase II deliverability study if available)
  - Be at a minimum in either the Phase II study for deliverability or Facilities study
  - Acquire a finding of full capacity deliverability status through the generator interconnection process. Participation in the annual deliverability process does not meet eligibility requirements
  - Obtain full capacity deliverability status by 12/31/2021
- Projects bidding as energy only do not have to pursue any deliverability studies

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# PPA Overview

# Power Purchase Agreements – Terms and Conditions

- One form PPA. Terms and conditions are non-negotiable
- Contract terms based on Participant's 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)
- Seller offers 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 contract approval, with potential 6 month regulatory delay
- PPA requires counterparty to provide progress updates every six (6) months
- Project Development Security is due to PG&E within five (5) business days following CPUC approval, is required to ensure seller completes its project by the Guaranteed Commercial Operation Date:
  - 1 – <= 5 MW: \$20/kW
  - > 5 – 20 MW: \$60/\$90 per kW for intermittent/baseload resources, respectively
- Failure to meet commercial operation date, after excused delays is an event of default which may result in PPA termination and loss of Project Development Security.

# 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 120% of the Contract Quantity in a given year
  - Delivery shortfalls – Sellers must agree to deliver a minimum quantity of Product (140% of Contract Quantity) over each two consecutive year period, which is the Guaranteed Energy Production or GEP. GEP is based on contract quantity, so be sure to offer a realistic estimate of Contract Quantity. If seller fails to meet GEP, seller may be liable to pay PG&E liquidated damages and repeated failure to meet GEP can be grounds for PG&E to default seller and terminate the PPA.
- Delivery Term Security is performance assurance due to PG&E on the Commercial Operation Date and will be held by PG&E throughout the delivery term:
  - 1 –  $\leq$  5 MW: \$20/kW
  - > 5 – 20 MW: 5% of expected total Project revenues

# Power Purchase Agreements – Terms and Conditions

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- **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 sellers project and PG&E bears any imbalance risk
  - PG&E may assess “Forecasting Penalty” in order to offset PG&E’s imbalance costs during periods in which Sellers does not provide required data
- **Seller must curtail in response to curtailment called by CAISO, Participating Transmission Owner or Reliability Coordinator and is not paid for those curtailments**
- **PG&E has economic curtailment rights during Buyer Curtailment Periods for up to 100 hours per year and pays contract price for energy deemed delivered**

# Power Purchase Agreements – Terms and Conditions

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- **Deliverability:**
  - 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 will full capacity deliverability up until seller obtains a finding of full capacity deliverability

# Time of Delivery (TOD) Factors for TOD Period

## TOD FACTORS FOR EACH FULLY DELIVERABLE TOD PERIOD

Monthly Period	Super-Peak	Shoulder	Night
Jun – Sep	2.37533	1.11825	0.59239
Oct- Dec, Jan & Feb	1.09773	0.94493	0.66147
Mar. – May	1.21965	0.89580	0.60634

## TOD FACTORS FOR ENERGY ONLY TOD PERIOD

Monthly Period	Super-Peak	Shoulder	Night
Jun – Sep	1.35328	1.07401	0.69578
Oct- Dec, Jan & Feb	1.23142	1.10672	0.77693
Mar. – May	1.12547	1.01635	0.71217

The TOD factors shown above are consistent with factors shown in PG&E's 2011 RPS Protocol.

# Time of Delivery (TOD) Factors - Definition

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**Payment :** Contract Price \* TOD Factor \* MWh

**Super-Peak :** Noon – 8:00 PM, Monday – Friday, except NERC Holidays<sup>1</sup>

**Shoulder :** 6:00 AM – noon and 8:00 PM – 10:00 PM, Monday – Friday, except NERC Holidays; and 6:00 AM – 10:00 PM Saturday, Sunday and all NERC Holidays

**Night :** 10:00 PM – 6:00 AM, all days

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

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# Evaluation Methodology

# Evaluation Methodology

- PG&E will screen conforming Offers on a “pass-fail” basis against the eligibility criteria discussed on pages 10-12, which are project size, location, interconnection, site control, experience, commercialized technology, commercial operation date and meet the eligibility requirements for projects that bid in as fully deliverable
- **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 14 MW of the lowest-cost Offers in the Baseload and As-Available Non-Peaking product categories and 119 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 projects: will use the reliability network upgrade cost and the deliverability network upgrades along with the project’s resource adequacy value
  - Costs will be levelized using PG&E’s CPUC authorized after tax weighted average cost of capital of 7.6 percent



# Evaluation Methodology (continued)

- Full Capacity Deliverability Resources

- Full capacity deliverability status allows PG&E to use the project's capacity attributes purchased under the PPA toward PG&E's Resource Adequacy requirement
- PG&E assumes that all new resources 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 Selection

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## Selection and PPA Execution

- By August 14, 2012 PG&E will notify each Participant regarding the selection status of its Offer(s)
- PG&E may place some Participants on a wait list
- By August 24, 2012, selected Participants must return signed RAM PPA along with the required documents shown in Appendix IX of the PPA. Waitlisted Participants that wish to continue participation in PG&E's RFO must notify PG&E that they want to remain on the waitlist
  - August 27, 2012, PG&E notifies waitlisted Participants that they have been selected
  - September 6, 2012, waitlisted Participants must return signed PPA with required documents show in Appendix IX of the PPA
- By September 13, 2012, PG&E will execute final RAM PPAs and return one fully executed RAM PPA to Participant
- On September 28, 2012, PG&E will submit a Tier 2 advice letter filing to the CPUC seeking approval of the RAM PPAs entered into pursuant to the RAM RFO

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# Supplier Diversity



# Supplier Diversity RFO Objectives

- **Provide an overview of PG&E's supplier diversity goals and objectives**
- **Help bidders understand what a good supplier diversity plan looks like**
- **Help bidders understand the definition of a viable diverse business partner**
- **Promote participation of women-, minority- and service disabled veteran-owned suppliers**



# PG&E's Commitment to Supplier Diversity

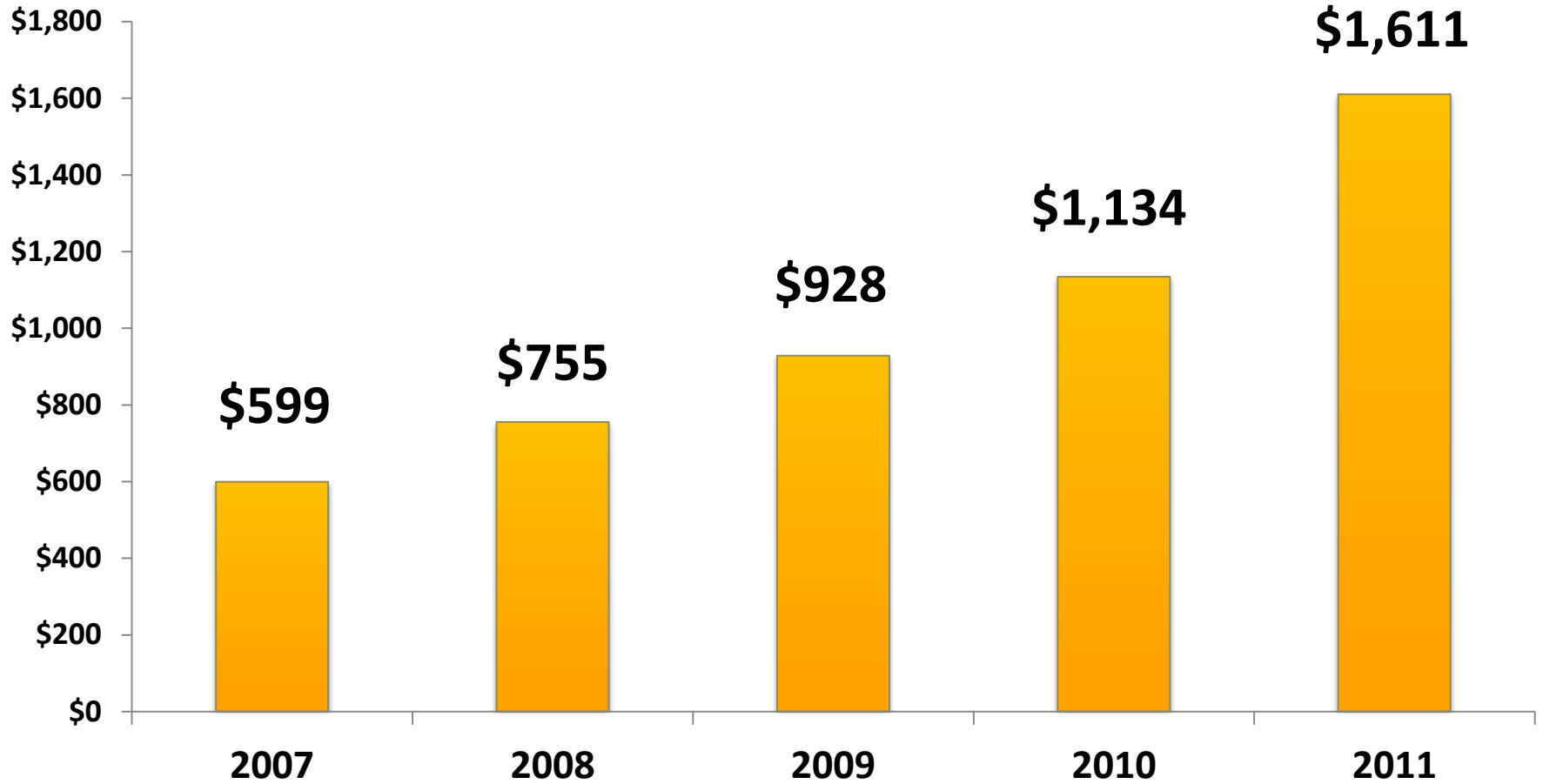


President, Pacific  
Gas & Electric  
Company

“Our ongoing commitment to diversity and inclusion is essential to our success as a business. Being more reflective of the communities we serve will better enable us to anticipate and respond to our customers’ needs. It will allow us to engage in more creative and innovative solutions to the challenges we face. Using our purchasing power to support women-, minority- and service-disabled veteran-owned businesses will enhance the diversity of businesses in California. And these actions will enrich the communities where our customers and employees live and work.”



# 5-Year Diverse Performance Trend (\$M)





# Supplier Diversity Considerations

- Bidders are asked to complete a Supplier Diversity questionnaire with their offer submittal
- Bidders are asked to provide information about whether they are a diverse supplier or their plans to include diverse suppliers during project development and operation
- During the evaluation process, we will evaluate whether the Bidder is a certified diverse supplier and the viability of each supplier diversity solution on a case-by case basis.
- Supplier Diversity solutions include:
  - Value Added Reseller
  - Joint Ventures
  - Partnerships
  - Mentorship/Supplier Development



# Certification

- **Certification is a formal, standardized process to validate whether an applicant is at least 51 percent owned and controlled by minorities and/or women**
- **Requirements**
  - Applicant must submit an application in its entirety including supporting documents.
  - The applicant must be at least 51 percent owned and controlled by minorities and women. Department of General Services (DGS) has the same requirement for service disabled veteran-owned businesses.
- **If a supplier holds a certification from the National Minority Supplier Development Council (NMSDC) or Women’s Business Enterprise National Council (WBENC), the supplier can apply using the streamlined comparable agency certification process.**





# Concluding Points

- Understand that PG&E is committed to supplier diversity – incorporating diverse supplier solutions is preferred
- Increasing business with diverse firms is a business imperative – supplier diversity is inherent in our values and critical to our success
- Utilize the tools and resources available to help increase your diverse supply – leave no stone unturned
- We are interested in innovative solutions to achieving supplier diversity goals and objectives – Creativity is welcomed
- We are here to assist you – We will supply you with the Prime Supplier Participation Program Guide and a list of potential diverse firms for your consideration



# Resources

● <b>PG&amp;E Supplier Diversity Contact:</b>	Jerilyn Gleaves
● <b>California Public Utilities Commission (CPUC) Supplier Clearinghouse:</b>	<a href="http://www.cpuc.ca.gov/PUC/SupplierDiversity/clearing.htm">www.cpuc.ca.gov/PUC/SupplierDiversity/clearing.htm</a>
● <b>National Minority Supplier Development Council (NMSDC):</b>	<a href="http://www.nmsdc.org">www.nmsdc.org</a>
● <b>Women’s Business Enterprise National Council (WBENC):</b>	<a href="http://www.wbenc.org">www.wbenc.org</a>
● <b>Department of General Services (DGS):</b>	<a href="http://www.pd.dgs.ca.gov">www.pd.dgs.ca.gov</a>
● <b>Local Chambers of Commerce:</b>	<ul style="list-style-type: none"><li>● Asian Business Association</li><li>● Black Business Association</li><li>● Latin Business Association</li><li>● National Association of Women Business Owners</li><li>● National Center of American Indian Development</li><li>● Purchasing Councils</li></ul>

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# Offer Submittal Process and Offer Form

# Keys to a Successful Proposal

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- **Expect a robust solicitation response**
  - **PG&E received 122 offer from the first RAM auction**
  - **PG&E received approximately 1,000 offers in its 2011 RPS Solicitation**
- **Submit a competitively priced offer**
- **Submit a complete offer, including supplier diversity questionnaire**

# Offer Price Assumptions

The Offer Price submitted 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 Upgrades<sup>1</sup> for energy only projects. If a Seller submits their project as fully deliverable, the Seller must also fund any upgrades required to achieve full capacity deliverability<sup>1</sup>.
- **Awards** – Production Tax Credits, Investment Tax Credits and all other awards that Seller reasonably expects to apply. Seller will not be permitted to terminate the contract or seek a price adjustment, if the project or seller do not ultimately benefit from any expected tax credit.
- **Offer Price** will be adjusted in each Time of Delivery (“TOD”) factor for each period by the energy payment allocation set forth in the RAM PPA

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

# Offer Price Assumptions (continued)

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- Generation Profile – Participant must provide hourly generation forecast
- Collateral requirements – (i.e. Project Development Security and Delivery Term Security)
- PG&E's Revenue Calculator is provided as informational only
  - Calculates revenue from the energy generation profile
  - Takes into account the applicable TOD factors

# Offer Submittal

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- Offers must be received by PG&E in electronic form by Thursday, May 31, 2011 noon (PPT)
- E-mail all Offers to PG&E at [RAMRFO@pge.com](mailto:RAMRFO@pge.com) and to the I.E. at [Charles.Adkins@abb.ventyx.com](mailto: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 Sellers of error (e.g. incomplete or incorrect documents) and will allow 2 Business days to correct
  - If you provide multiple submissions for each offer, PG&E will consider your most current submission as the intended offer. An offer is defined by each distinct facility site.
- 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 the Section IX of protocol document

# Required Offer Submission Forms

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- 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



# Communications and Website

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- All RFO documents are available on PG&E's website at [www.pge.com/rfo](http://www.pge.com/rfo). Click on Second Renewable Auction Mechanism RFO
- Announcements, updates and Q&As will also be posted on the website
- Communications should be directed to: [RAMRFO@pge.com](mailto:RAMRFO@pge.com) with a copy to the I.E. at [Charles.Adkins@abb.ventyx.com](mailto:Charles.Adkins@abb.ventyx.com)

# Offer Form Structure

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- **Instructions**
- **Appendix A1: Developer Form**
- **Appendix A2: Product Description**
- **Appendix A3: Aggregated Facilities**
- **Appendix A4: Energy Pricing**
- **Appendix A5: Generation Profile and Revenue Calculator**

# Offer Form – Instructions

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- Be sure to **enable macros** when opening the Offer Form
- The instructions tab contains a list of detailed directions and useful references/definitions
- **Yellow** cells contain drop-down menu selection that needs to be completed
- **Blue** cells are regular text field
- Help captions are available when you position your mouse over each field
- Grayed out cells are auto-calculated cells
- Fill out all yellow and blue cells in each tab of the Offer Form to reduce need for forms to be returned for completion. Once completed all the cells will turn white

# 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 2011 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: ABC Solar

Address: 777 PV Way

City: Merced State: CA Zip Code: 94100

First Name of Authorized Contact #1: John First Name of Authorized Contact #2: \_\_\_\_\_

Last Name of Authorized Contact #1: John Last Name of Authorized Contact #2: \_\_\_\_\_

Title of Contact #1: Developer Title of Contact #2: \_\_\_\_\_

Phone Number #1: (415) 888-8888 Phone Number #2: \_\_\_\_\_

Alt. Number (Cell) #1: (707) 888-8888 Alt. Number (Cell) #2: \_\_\_\_\_

Email Address #1: sally@abcsolar.com Email Address #2: \_\_\_\_\_

**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.**

Developed Projects or Projects Under Construction												
Key Team Members	Title/Role	Full Legal Project Name	Technology Type	Size (MW)	Commercial Operation Date	Address	City	State	Zip Code	Longitude	Latitude	Additional Information
John	Developer	ABC Solar, LLC	Solar Photovoltaic	10.00						-122.4	37.76	

# Offer Form – Product Description



## Appendix A2: Participant Proposal Project Description

### General Project Information

Full Legal Project Name: **Sunstar I, LLC**

Project Location: \_\_\_\_\_

Street Address: \_\_\_\_\_

City: **Merced**

**CA**

Zip Code **94100**

Project Description: **5 MW thin film project**

Existing or New Facility: **New**

Longitude: **-122.4**

Latitude: **37.76**

CREZ: **NonCREZ**

Longitude and Latitude  
should be in degrees

<http://www.energy.ca.gov/reti/documents/index.html>

Select the Competitive Renewable Energy Zone in which your project is in or near. The CREZ map is located at the CEC website.

# Offer Form – Product Description

Offer Information			
Offer #	1	Total Number of Offers:	1
Variant	a		
Product Type:	<b>As Available Peaking</b>	Product Type automatically determined from Generation profile and revenue calculator.	
Transaction Type (Excess Energy Sales or Full Energy Sales):	<b>Full Buy</b>	Enter the Capacity type of your Offer: (Full Capacity or Energy Only):	<b>Full Capacity Deliverability Status</b>
PPA Term (years):	20		
PPA Terms (months):	240	Expected Date to receive Full Capacity Deliverability Status	12/31/2021
Expected Construction Start Date:	1/1/2013		
Expected Commercial Operation Date:	1/1/2014		
<b>Capacity</b>			
Is this offer from a single facility or aggregated facilities?	Single		
	<b>Contract Capacity (MW)</b>	<b>Nameplate Capacity (MW)</b>	
Contract Capacity (Single Facility):	15.00	15.00	
Contract Capacity of Aggregated Facilities:	-	N/A	
Calculated Capacity:	15.00	15.00	
<b>Security Requirement</b>			
	<b>Price</b>	<b>Quantity</b>	<b>Required</b>
Project Development Security:	\$ 60.00 kW	15,000 kW	\$900,000.00
Delivery Term Security:	5% of Total Revenues		\$7,591,432.13
			<b>Security Type</b>
			Letter of Credit
			Letter of Credit
<b>Technology</b>			
ERR Type:	Solar Photovoltaic	Major Equipment Description:	ACME Panels
Type of Photovoltaic Technology:	Polycrystalline	Manufacturer:	ACME

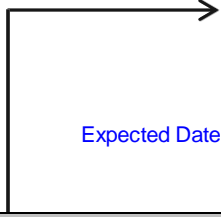
Bid ID: ABCSolSunStar\_Full\_SolarP\_1a\_c

BID ID is automatically populated and is keyed off of the following elements:

- Developers Name
- Project Name
- Full Capacity/Energy only
- Technology Type
- Offer number
- Offer Variation
- Total number of offers submitted

# Offer Form – Product Description

Interconnection	
Expected Interconnection Point:	<u>Los Banos</u>
Closest Substation:	<u>Tracy</u>
Closest Transmission Bus:	
Interconnection Voltage (kv):	<u>230.00</u>
Interconnecting Utility:	<u>PG&amp;E</u>
Interconnection Level:	<u>Transmission</u>
Status of Interconnection Application:	<u>Phase II Study Complete</u>
Delivery Market:	<u>NP15</u>
Interconnection Queue Position:	<u>P00000</u>
Reliability Upgrade Costs (\$):	<u>\$200,000.00</u>
Expected number of months to construct network upgrades identified in studies.	<u>24.00</u>
Expected Interconnection Date	<u>4/1/2013</u>
Expected Date to receive Full Capacity Deliverability Status	<u>12/31/21</u>
Deliverability Upgrade Costs (if applicable):	
Site Control	



Enter the reliability upgrade costs identified in your interconnection study. These are the costs necessary for interconnection only and may not result in full deliverability.

# 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.

Electronic Signature:

Select "Yes" to certify that typed name acts as electronic signature:

Yes

## 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.

Electronic Signature:

Select "Yes" to certify that typed name acts as electronic signature:

Yes

## 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

Electronic Signature:

Select "Yes" to certify that typed name acts as electronic signature:

Yes

## Submission History

Has project been previously offered to PG&E?

If yeas, please identify the situation:



# Offer Form – Aggregated Facilities



## Appendix A3: RAM Offer Sheet (use for aggregation of facilities)

Aggregation of facilities to meet the minimum 1 MW size requirement is allowed only if each facility is no less than 500 kw and the project comprised of the aggregated facilities interconnects to a single p-node.

Full Legal Project Name	Address	City	Zip Code	Longitude	Latitude	ERR Technology	Major Equipment Description

Project Information:								
Equipment Manufacturer	Interconnection PNode	Model Number	Number of Units in the Project	Output per Unit	Is the above technology commercially proven?	Is this technology standardized?	Gross Power Rating, kW AC	Contract Capacity, kW AC

0.00

The aggregated quantity is less than 1 MW



# Offer Form – Generation Profile



## Appendix A5: Estimated Energy Production Profile

Complete

Full Legal Project Name:

Sunstar I, LLC.

Project Location:

PG&E Project ID (for internal use only): ABCSol\_Sunstar\_Solar

**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) Make sure you have provided Contract Price per year on the Energy Pricing Tab.
- 3) Make sure you have supplied a PPA Capacity, term length, and expected start date on the Product Description Tab.
- 4) Press the Expected Revenues button.

Expected Revenues

Annual Degradation (%)

Year 1 2014

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													15	15	15	15	15	15	15	15					3,720
Feb													15	15	15	15	15	15	15	15					3,360
Mar													15	15	15	15	15	15	15	15					3,720
Apr													15	15	15	15	15	15	15	15					3,600
May													15	15	15	15	15	15	15	15					3,720
Jun													15	15	15	15	15	15	15	15					3,600
Jul													15	15	15	15	15	15	15	15					3,720
Aug													15	15	15	15	15	15	15	15					3,720
Sep													15	15	15	15	15	15	15	15					3,600
Oct													15	15	15	15	15	15	15	15					3,720
Nov													15	15	15	15	15	15	15	15					3,600
Dec													15	15	15	15	15	15	15	15					3,720
Total	0	0	0	0	0	0	0	0	0	0	0	0	5,475	5,475	5,475	5,475	5,475	5,475	5,475	5,475	0	0	0	0	43,800

PPA Revenues Nominal  
\$151,828,642.65

489,816  
442,711  
518,560  
509,981  
518,560  
899,193  
934,823  
915,966  
899,193  
492,108  
468,766  
489,816

PPA Revenues Nominal	Total MWh	Total Capacity Amount	Average Capacity Factor:	Avg annual Contract Quantity(MWh)	Ratio of Super Peak and Shoulder Peak MWhs to Total MWhs
\$151,828,642.65	876,600	2,629,800	33.33%		100.00%
489,816					
442,711					
518,560					
509,981					
518,560					
899,193					
934,823					
915,966					
899,193					
492,108					
468,766					
489,816					

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# Interconnection Information

- 
- **For this RFO, Seller must have applied for interconnection and have applicable interconnection study complete**
  - **For future RFOs, Sellers should initiate the interconnection process early, to ensure that eligibility requirements are met**
  - **Online MAP provides an indication of MW available for interconnection**

# Wholesale Generator Interconnection Study Processes

- Commercial online date is 24 months from CPUC approval. Assuming October 2012 CPUC approval, commercial operation must occur by October 2014, with 6 month delay allowed until April 2014
- Interconnection process must be complete for participant to deliver energy to the CAISO grid and meet obligations of the PPA contract
- Participant is responsible for timely applications and timely completion of applicable process
- All participants must reach commercial operation by the deadline provided for in the RAM PPA. Sellers are responsible for understanding the relevant interconnection procedures and ensuring they can interconnect within the mandated timelines<sup>1</sup>.
- Participants that are selected for a RAM PPA and have selected to bid their project in as fully deliverable will be required to demonstrate that they are pursuing a finding of full capacity deliverability status in Phase II of the Cluster IV process<sup>1</sup>. Participation in the annual deliverability process is not an acceptable alternative.

<sup>1</sup> Per page 13 of the RAM protocol document

# Cluster Schedule – Application through Final Study

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

CAISO* Cluster Group	Window	Phase I	Phase II	Interconnection Agreement
1 & 2	Closed	Completed	Completed August 2011	Target December 2011
3	Closed	Completed	Target October 2012	Target February 2013
4	Closed	Completed	Target October 2012	Target February 2013
5	Closed	Target October 2012	Target July 2013	Target November 2013

PG&E WDT Cluster	Window	Phase I	Phase II	Interconnection Agreement
4D	Closed	Completed	Target October 2012	Target February 2013
5D	Closed	Target October 2012	Target July 2013	Target November 2013

Note\*: PG&E does not have an October/November 2011 window but will discuss potential applications with developers.

Note\*\*: Subject to CAISO Tariff.

# Fast Track and Independent Schedule – Application through Final Study

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	10BD	4 months	~6 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	~12 months

Note: BD = business days



# Post- Interconnection Agreement

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- **Post Interconnection Agreement, PG&E and Interconnection Customer will be engineering and designing, procuring, and constructing the electrical interconnection**
  - PG&E will engineer the Capital Improvements as agreed upon in the Interconnection Agreement
  - Interconnection Customer will engineer the electrical system on the Interconnection Customer's side of the meter and any upgrades that will be applicant built and deeded (if required)
- **Post EPC, PG&E, CAISO (if applicable), and Interconnection Customer will coordinate a pre-parallel inspection and commissioning to achieve Commercial Operation**
- **Timing for implementation is project specific and could take from 6 months to 4 years**

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# Q & A