

Photovoltaic Program (PV) Power Purchase Agreements (PPA) Request for Offers (RFO)

2014 Solicitation

Participants' Webinar

November 3, 2014

Objective

- The purpose of this webinar is to provide information to participants who may submit Offers to PG&E's 2014 Photovoltaic Program Power Purchase Agreements RFO (2014 PV PPA RFO)
- We will not discuss other procurement programs such as:
 - RAM
 - 2013 and 2014 RPS Solicitations
 - ReMat
 - Net Metering
 - California Solar Initiative (CSI) program

Agenda

Topics

Introduction

Eligibility Requirements

PPA Overview

Evaluation Methodology

Offer Submittal Process

Offer Form

Intermission

Q & A

Presenter

Pauline Cheng

Pauline Cheng

Pauline Cheng

Pauline Cheng

Pauline Cheng

Lindsay Saxby

Team

Q&A / List of Attendees / Audio Replay

- Participants should e-mail their questions to the PV RFO mailbox at PVProgram@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:
<http://www.pge.com/en/b2b/energysupply/wholesaleelectricssolicitation/RFO/PV2014.page>. The audio portion of the Webinar will be posted on PG&E's website at as well
 - 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 PV RFO mailbox at PVProgram@pge.com by 5:00 P.M. PPT, November 5th.

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- 4659
 - PV PPA RFO Protocol dated October 21, 2014
 - Form of Power Purchase Agreement that is referenced in the Protocol
 - Monitor the Q&A link on PG&E's RFO website
- Given that the Power Purchase Agreement is non-negotiable, PG&E urges participants to ask clarifying questions regarding the PPA prior to submittal of an offer under this RFO

Public Disclosure of Information

- By participating in the PV PPA RFO, each Participant acknowledges and expressly authorizes PG&E to publicly disclose the following information:
 - Names of the companies that submitted Offers into PG&E’s PV PPA 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

Updates from the 2012 PV PPA RFO

- Eligibility and Program Updates Are Similar to RAM 5 RFO:
 - Projects must possess a Phase I interconnection study to participate in the RFO
 - Participants may offer projects as either Full Capacity or Energy Only resource
 - Evaluation uses a total cost equal to the levelized post-TOD cost + transmission costs - RA benefits (as applicable)
- PPA includes terms and contract provisions not applicable to PV PPA RFO projects. Participants are encouraged to view [PPA Guide for 2014 PV PPA RFO](#) for a list of non-applicable items.
- PPA Updates: Major
 - One PPA for all projects from 1 MW to 20 MW
 - Inclusion of Cover Sheet whereby offer and project information input are required
 - Guaranteed Commercial Online Date is 24 months from CPUC approval of your PPA
 - Permitted delay extension is 6 months
 - Curtailment provision updated to be consistent with RAM 5, which has 100 hours of annual curtailment

Updates from the 2012 PV PPA RFO

- PPA Updates: Major (continued)
 - Projects with shared interconnection facilities are required to provide separate high-side metering and separate step-up transformer for the project selling to PG&E via this PPA
 - Projects with contract capacity less than 3 MW subject to guaranteed energy production provisions as PV projects participating in the ReMat program
- PPA Updates: Minor
 - Updated TOD factors, CAISO terminology and outage and reporting protocols.
- Offer Form updates include:
 - Generation profile required
 - Supplier Diversity questionnaire is included as the last tab of the offer form
- Offer Submission:
 - Offers must be submitted through the online platform at Power Advocate

2014 PV PPA RFO Schedule

Date/Time	Event
November 3	Participants' Webinar
November 19 by 12:00 P.M. PPT	Deadline for Participants to submit Offers through Power Advocate
January 30, 2015	PG&E notifies Selected Participants and any Waitlisted Participants
February 4	Primary and Waitlisted Participants must return signed acceptance letters
February 11	Waitlisted Participants updated regarding their status
February 11 by 1:00 P.M. PPT	Primary Participants must return signed PPA and the required documents as shown in Appendix XIII of the PPA*
February 19 by 1:00 P.M. PPT	Waitlisted Participants must return signed PPA and required documents as shown in Appendix XIII of the PPA*
March 17	PG&E executes PPAs
April 20	PG&E files Advice Letter for CPUC approval

* PG&E requests that Appendix VIII documentation be submitted by the date provided herein, prior to PPA execution

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
- 2014 PV PPA RFO IE is Wayne Oliver of Merrimack Energy Group, Inc.
 - Email: waynejoliver@aol.com

Eligibility Requirements

Eligibility Requirements

- New PV electric generating systems only
- PV projects with a capacity of 1 to 20 MW only. Ground-mount and rooftop systems are both eligible.
- Aggregation of facilities to meet the 1 MW minimum threshold is allowed if each facility is at least 500 kW, owned by a single Participant, and all facilities share a single CAISO resource ID. The aggregated facilities must be no greater than 3 MW in total and must be capable of responding to single electronic signal from the CAISO or PG&E for the purposes of scheduling or dispatch.
- Located within PG&E's service territory. Must interconnect directly to PG&E's electric distribution or transmission system.
- 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

Eligibility Requirements

- Studies must show that commercial operation can be achieved within 24 months following CPUC approval of the PPA; assuming April 2015 Advice Letter Filing and June 2015 CPUC approval, commercial operation must be scheduled to occur by June 2017.
- Site control must be demonstrated for the entire delivery term of the PPA
- Developer must have previously completed or begun construction of a solar project that is at least 500 kW
- Must not have received funds in the California Solar Initiative (CSI) or Net Energy Metering programs
- Participants may submit bids as Energy Only (EO) or with Full Capacity Deliverability Status (FCDS)
- Participants that have previously bid projects into other solicitations may bid into the PV PPA RFO so long as they meet the RFO eligibility requirements

Eligibility Requirements

- Projects bidding as 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 Projects:
 - 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 and later Project
 - 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
- Contract terms vary based on the Offer:
 - Price (All-in, \$/MWh)
 - Energy Only or Full Capacity Deliverability Status
 - 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 transformation and transmission losses to and at the Delivery Point; 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 permitted delay

Power Purchase Agreements

- Sellers must provide progress development updates every quarter until Construction Start Date has occurred at which time updates are monthly
- 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
- For each hour of energy generated, Seller is paid contract price multiplied by the applicable TOD factor
- Energy deliveries
 - Surplus deliveries: PG&E will pay for energy deliveries up to 115% of the Contract Quantity in a given year
 - Delivery shortfalls: Sellers must agree to deliver a minimum quantity, which is the Guaranteed Energy Production ("GEP") of the Product:
 - GEP: 170% over two consecutive years for projects with contract capacity less than 3 MW and 160% for projects with a contract capacity 3 MW or greater
 - 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.

Power Purchase Agreements

- 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.
- Project Development Security is due to PG&E in the amounts and time as follows:
 - Contract capacity less than 3 MW: \$20/kW within 30 days following Effective Date
 - Contract capacity of 3 MW to less than 10 MW: \$15/kW upon Execution Date, increasing to \$20/kW within 30 days following the Effective Date
 - Contract capacity 10 MW to 20 MW: \$15/kW upon Execution Date, increasing to \$35/kW within 30 days following the Effective Date
- Delivery Term Security is due to PG&E as one of the conditions precedent to the Initial Energy Delivery date and will be held by PG&E throughout the delivery term
 - Six months of expected total Project revenues in the first applicable contract year
 - Contract capacity less than 3 MW: not required

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 in PG&E's RAM 5 and 2013 RPS Solicitations

Evaluation Methodology & Procurement Target

Evaluation Methodology

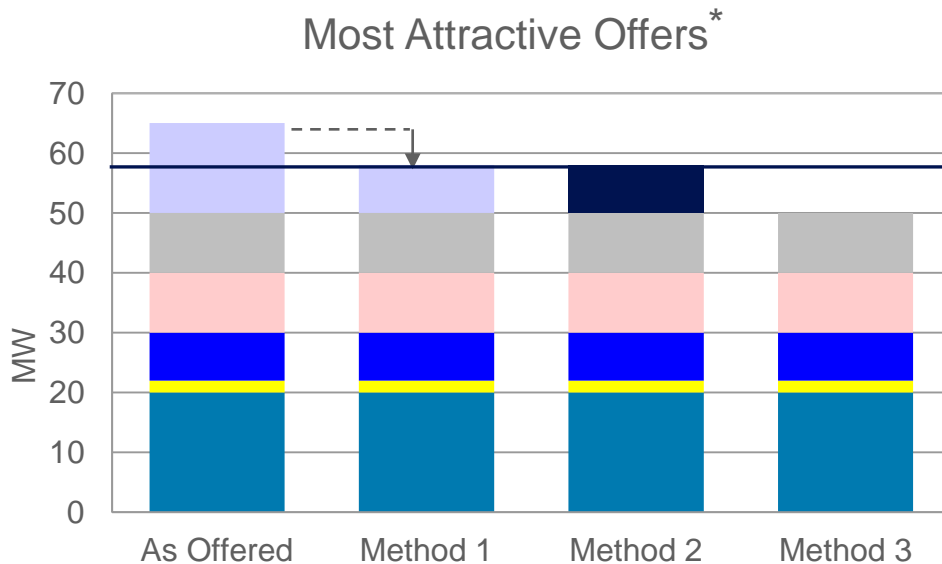
- Offers will be ranked in order of cost, which will include, where applicable, estimated transmission network upgrade costs from the most recent study or interconnection agreement
 - PPA Pricing (\$/MWh): escalation allowed, but no indexing. Best and final price must be submitted with the Offer. PG&E 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 refundable costs associated with reliability network upgrades will be used
 - Fully Deliverable Capacity Status projects: will use the refundable 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
 - PG&E’s evaluation methodology 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
- Supplier Diversity
 - PG&E will consider a Participant's status as a Women, Minority, Disabled Veterans Business Enterprise (WMBDVE) 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.

Procurement Target

- Procurement target for 2014 RFO is 58 MW
- If the most attractive offers result in more than 58 MW, there are three methods for getting within the 58 MW limit:



- 1: Request that the last offer to be added reduce its size while holding its \$/MWh price. This option is requested in the Offer Form; or
- 2: Drop the last offer, and pick the next most attractive small offer that results in a total of 58 MW or less;
- 3: Drop the last offer

The approach used will depend on the offers received

*Offers that meet eligibility requirements

Offer Submittal Process

Keys to a Successful Proposal

- Expect a strong solicitation response
 - 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
 - If willing to reduce size while holding Offer price, indicate ability to do so on Offer Form
 - Fixed Price vs. Escalating Price
- Submit a competitively priced Offer
- Submit a complete Offer including:
 - Complete Offer Form
 - Completed PPA Cover Sheet
 - Most recent Interconnection Study or Interconnection Agreement
 - Site Control Questionnaire and Attestation
 - Acknowledgement and Commitment of Site Owner

Offer Price Assumptions

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

- Grid Interconnection Costs
 - Direct Assignment Costs: Seller 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 receive any expected benefit, tax credit or other award, Seller will not be permitted to terminate the PPA or seek a price adjustment.

¹ Developer is entitled to repayment of some or all upgrade costs with interest over a 5-year period following initial operation.

Offer Price Assumptions

- Offer Price, Generation Profile:
 - Offer price will be adjusted by the Time of Delivery (“TOD”) factor for each period
 - 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=45113&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 Solicitation Protocol and by selecting “Yes” in the Acknowledgements and Authorizations section of the Developer Experience tab of the Offer Form.

Communications and Website

- RFO website (<http://www.pge.com/en/b2b/energysupply/wholesaleelectricssuppliersolicitation/RFO/PV2014.page>) 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: PVProgram@pge.com with a copy to the Independent Evaluator Wayne Oliver at waynejoliver@aol.com

Offer Form

Required Offer Submission Forms

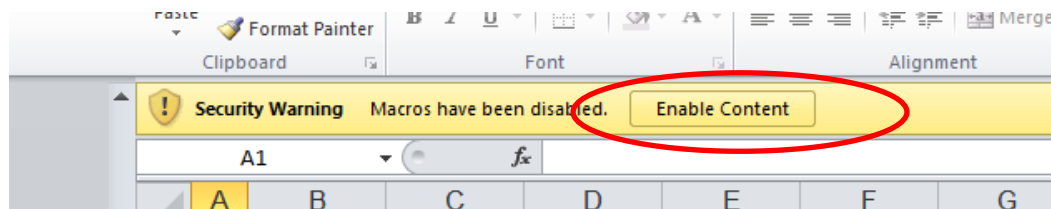
- Offer package must be in a format as specified in the Solicitation Protocol
- Fully Completed Offer Form which includes Developer Experience and Supplier Diversity Questionnaire. Format: MS Excel
- Completed PV PPA Cover Sheet (Appendix B). Format: MS Word
- Site Control Questionnaire and Attestation (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.

Offer Form Structure

- Instructions
- Participant Information and Developer Experience
- Product/Project Description and Contract Information
- Aggregate Facility (if applicable)
- Energy Pricing
- Generation Profile and Revenue Calculator
- 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 tabs indicate that help captions are available when you position your cursor over the field
- Grayed out cells are auto-calculated cells.
- If the word “Complete” does not appear at the top of the page and on the validation tab, the Offer Form will be deemed invalid and returned to you

Offer Form – Validation Tab



Attachment A Validation Worksheet

Please make sure your form is complete before you submit it. If the form is not complete, please do not submit it as it will be returned to you through an automated process.

This form is complete.

Tab Name	Message
Developer Experience	Complete
Product Description	Complete
Aggregate Facility	Complete
Energy Pricing	Complete
Gen Profile	Complete
Supplier Diversity	Complete

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 or begun construction of a solar project that is at least 500 kW.

Key Team Members	Project Developer	Project Title/Role	Full Legal Project Name	PV Technology Type	Size (MW)	Commercial Operation Date
Jane Doe	Jane Doe	Principal Developer	Solar I Project	Monocrystalline	20.00	1/1/2011
John Smith	John Smith	Project Manager	Solar II Project	Polycrystalline	20.00	2/2/2012
				<Choose One>		

Offer Form – Developer Experience

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 PV RFO Protocol Document.

Yes

Electronic Signature Jane Doe

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 PV RFO Protocol Document.

Yes

Electronic Signature Jane Doe

Attestation

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

Yes

Electronic Signature Jane Doe

Offer Form – Product Description



Appendix A2: Participant Proposal Project Description and Contract Information
 There is 1 missing input. Please fill in all yellow highlighted cells in Appendix A2.

List Missing Inputs

General Offer Information			
Total Offers	1	Offer Source	PV
Offer #	1	Has this project previously been offered to PG&E?	Yes
Variant	a (base)	Solicitation #	3
		Bid ID	SunStar_Photovo_1a (base)_of_1_PV2014_3

Project Information			
Aggregate Facilities?	<Choose>		
Full Legal Project Name	SunStar II		
Street Address	Merced		
City	456 Main Street	State	CA
County	Merced	Zip Code	95340
Latitude	37.00000000 degrees	Longitude	-122.00000000 degrees
CREZ (Click here for CREZ map)	NonCREZ		
CREZ Location			
Is the project site subject to restrictions under the Williamson Act?	No		
Williamson Act Description			
General Project Description	Please enter project description here		

Offer Information			
Capacity Type	Full Capacity Deliverability		Description
Expected Commercial Operation Date	5/1/2017		
Full Deliverability Date	1/1/2020		
Delivery Term (years)	20.00	Aggregate	
Capacity (MW)	20.00		
Avg Pre-TOD Price (\$/MWh)	55.00		
In the event selection of the MW capacity of this offer exceeds the authorized annual MW solicitation amount, indicate whether participant			
Contract Capacity Decrease Option	Yes	Step Down Increment (MW)	4
Lowered Contract Capacity (MW)			16

System Characteristics			
ERR Type	Photovoltaic		
Photovoltaic Technology	Monocrystalline		
Describe Other Solar Technology			
Solar Module Detail			
System Type	Ground Mounted		
Company Name	TBD	Model	TBD
Tracking and Orientation	1 Axis		
Application date if filed with the CEC for precertification	06/01/14		

Site Control	
Type of Site Control	Own
Date Site Control Obtained:	1/1/2012
Site Owner Name (current):	ABC Renewables
Ownership Type Over Term:	Private
Site Owner Address:	123 Main Street
Site Owner City:	Pleasantown
Site Owner State:	CA
Site Owner ZipCode:	12345
Site Owner Phone #:	(999) 999-9999

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	Deliverability: % of Capacity	100.00%
Queue Number		Expected I/A Date	1/1/2015
Interconnection part of Cluster 5 or Later Studies?	No	Voltage (kV)	70 kV
Interconnection Choice		Direct Assignment Costs (\$)	
Interconnection Agreement Capacity	MW	Reliability Upgrade Costs (\$)	\$ 250,000.00
Other Characteristics		Network Upgrade Construction Time	18 months
		Deliverability Upgrade Costs (\$)	\$ 300,000.00
		Total Upgrade Costs (\$)	\$ 550,000.00

Credit Information			
Project Development Security due at PPA Execution (\$'s)	Price	Required	Security Type
	\$15/kW	\$ 300,000	Letter of Credit
Delivery Term Security (\$'s) (estimate)		\$ 1,796,291	Letter of Credit

Project Owners		
Name	Own %	Website URL
ABC Renewables	100%	

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 m		
Forum	Project Name	Comments / Notes
2014 RAM #5 RFO	SunStar1	No notes
<Choose One>		
<Choose One>		

Additional Notes

Offer Form – Aggregate Facilities Section



Project Information							
Unit Name	Address	City	Zip Code	County	Latitude	Longitude	CREZ
Unit 1	456 Farm Street	Merced	95340	Merced	37.00000000	-122.00000000	NonCREZ
Unit 2	460 Farm Street	Merced	95340	Merced	36.00000000	-120.00000000	NonCREZ
							<Choose O

Appendix A3: Aggregate Facilities Information

This tab has not been completed

Since you answered "Yes" to "Aggregate Facilities?" on the "Product Description" tab you must complete this section.

- Complete this tab for offers where there is aggregation of facilities. Input data for the projects being aggregated.
- Aggregation of facilities to meet the minimum 1 MW size requirement is allowed if each facility is at least 500 kW, is owned by a single Participant, and all facilities with a single CAISO Pnode. **No more than 6 sites can be aggregated for a total no greater than 3 MW.**

Offer Form – Product Description

Enter the % of interconnection agreement capacity that is being or has been studied for deliverability

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	<Choose One>
Interconnection Agreement Capacity	MW
Other Characteristics	
Interconnection Level	Transmission
Delivery Market	NP15
Closest Substation	Tracy
Interconnection Applied For?	Full Capacity Deliverability
Deliverability: % of Capacity	100.00%
Expected I/A Date	1/1/2015
Voltage (kV)	70 kV
Direct Assignment Costs (\$)	
Reliability Upgrade Costs (\$)	\$ 250,000.00
Network Upgrade Construction Time	18 months
Deliverability Upgrade Costs (\$)	\$ 300,000.00
Total Upgrade Costs (\$)	\$ 550,000.00

Interconnection Choice: Select Option A or Option B

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

Offer Form – Credit Information

Credit Information			
	<u>Price</u>	<u>Required</u>	<u>Security Type</u>
Project Development Security due at PPA Execution (\$'s)	\$15/kW	\$ 180,000	<Choose One>
Delivery Term Security (\$'s) (estimate)		\$ 1,074,180	<Choose One>

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

Offer Form – Energy Pricing



Appendix A4: Participant Proposal - Energy Pricing Sheet

Complete

Full Legal Project Name: SunStar II

Location: 456 Main Street

PG&E Project ID: _SunStar_Photo

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.

TOD Factors for each Fully Deliverable TOD Period						
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 Fixed

Escalation Rate

Contract Year Number	Contract Year Start Date (mm/dd/yyyy)
1	05/01/17
2	05/01/18
3	05/01/19
4	05/01/20
5	05/01/21
6	05/01/22
7	05/01/23
8	05/01/24
9	05/01/25
10	05/01/26
11	05/01/27
12	05/01/28
13	05/01/29
14	05/01/30
15	05/01/31
16	05/01/32
17	05/01/33
18	05/01/34
19	05/01/35
20	05/01/36

Contract Year Stop Date (mm/dd/yyyy)
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
04/30/29
04/30/30
04/30/31
04/30/32
04/30/33
04/30/34
04/30/35
04/30/36
04/30/37

Contract Capacity (MW)	Expected Annual Capacity Factor (%)	Contract Quantity: Expected Annual Net Energy (MWh)	Contract Price (\$/MWh)
1.00	30.83%	54,021	\$55.00
1.00	30.68%	53,751	\$55.00
1.00	30.58%	53,581	\$55
1.00	30.37%	53,214	\$55
1.00	30.22%	52,948	\$55
1.00	30.07%	52,684	\$55
1.00	29.98%	52,518	\$55.00
1.00	29.77%	52,158	\$55.00
1.00	29.62%	51,897	\$55.00
1.00	29.47%	51,638	\$55.00
1.00	29.38%	51,475	\$55.00
1.00	29.18%	51,123	\$55.00
1.00	29.03%	50,867	\$55.00
1.00	28.89%	50,613	\$55.00
1.00	28.80%	50,453	\$55.00
1.00	28.60%	50,108	\$55.00
1.00	28.46%	49,857	\$55.00
1.00	28.32%	49,608	\$55.00
1.00	28.23%	49,452	\$55.00
1.00	28.03%	49,113	\$55.00
588.52%		51,554	\$55.00

Enter your price in \$/MWh. DO NOT enter a price per kWh.

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	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	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	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	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	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	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	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	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	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	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	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	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 A6: Supplier Diversity Information
 There are 8 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	
<p>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.</p>	
1.	<p>Is your company a Diverse Business Enterprise? Yes</p> <p>Agency Name California Public Utilities Commission (CPUC)</p> <p>Certificate Number </p> <p>Certificate Expiration Date </p>
2a.	<p>Does your company have a Supplier Diversity program? <Choose></p> <div style="border: 1px solid black; height: 60px; width: 100%;"></div> <p>1500 character limit (1500 remaining)</p>
2b.	<p>Does your company have a supplier Diversity Mentorship program with DBEs? <Choose></p> <p>Please describe program:</p> <div style="border: 1px solid black; height: 60px; width: 100%;"></div> <p>500 character limit (500 remaining)</p>
3	<p>Does your company promote diverse subcontracting? <Choose></p> <p>Please describe program:</p> <div style="border: 1px solid black; height: 60px; width: 100%;"></div> <p>500 character limit (500 remaining)</p>
4	<p>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? </p>
5	<p>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?</p>
5a.	<p>Pre COD? </p>
5b.	<p>Post COD? </p>

Intermission

Q & A

Appendix

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 PV/RAM Map provides an indication of line conditions at point of interconnection. (<http://www.pge.com/b2b/energysupply/wholesaleelectricsuppliersolicitation/PVRFO/pvmap/>)
 - 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

Note*: Subject to CAISO Tariff.

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	Completed
6	Closed	Completed	Target November 2014	Target April/May 2015
7	Closed	Target December 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	Completed
6	Closed	Completed	Target November 2014	Target April/May 2015
7	Closed	Target December 2014	Target August 2015	Target April/May 2016
UPDATED 8	March 2015	Target October 2015	Target August 2016	Target April/May 2017

Note*: Subject to CAISO Tariff.

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)