
2015 Request for Offers Combined Heat and Power (CHP) Pre-Bid Conference

August 11, 2015 | 9:00am – 12:00pm

Teleconference - Dial: 866-835-8845

<https://engage.vevent.com/rt/sempra/index.jsp?seid=115>

Legal Disclaimers: Anti-Trust Guidelines & Document Conflict

Anti-trust:

All participants in today's meeting shall comply with anti-trust guidelines. These guidelines direct meeting participants to avoid discussions of topics or behavior that would result in anti-competitive behavior, including restraint of trade and conspiracy to create unfair or deceptive business practices or discrimination, allocation of production, imposition of boycotts and exclusive dealing arrangements.

Document Conflict:

This presentation is intended to be a summary level discussion of the information and requirements established in the 2015 CHP 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.

Overview and Agenda

CHP RFO Team

Names	Roles
Patrick Charles	Manager - Origination Analytics
Brad Mantz	Energy Contracts Originator and DBE Ambassador
Sue Garcia	Manager - Settlements and Systems
Scot Rolfe Liz Paluso Evan Bierman	Origination and Portfolio Design - Analysts
Bruno Velosa	Team Lead, Generation Interconnection
Ken Parks Michael Iammarino	Customer Generation
Georgetta Baker Abby Snyder	Regulatory Legal Commercial Legal
Alan Taylor	Independent Evaluator (Sedway Consulting)

Agenda*

Welcome	9:00
CHP Settlement Overview (Sue Garcia)	9:15
SDG&E and Supply Diversity (Brad Mantz)	9:25
RFO Eligibility and Timeline (Scot Rolfe)	9:35
Evaluation Process and IE Role (Scot Rolfe)	9:50
Interconnection (Bruno Velosa and Michael Iammarino)	10:00
RFO Materials (Scot Rolfe)	10:45
Bid Submission via PowerAdvocate (Liz Paluso)	11:15

* Agenda and times are subject to change

Independent Evaluator

Sedway Consulting has been retained as the Independent Evaluator (IE) for this solicitation.

Contact Information:

Alan Taylor

Sedway Consulting

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Boulder, Colorado 80302

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(303) 581-4127 [fax]

Alan.Taylor@sedwayconsulting.com

Role of the Independent Evaluator

The role of the IE is to:

- Monitor SDG&E's solicitation and negotiation process to ensure reasonable and uniform treatment of all potential counterparties.
- Monitor SDG&E's valuation methodologies and selection processes to ensure reasonable, fair and equal treatment of all offers.
- The IE is privy to all offer data, invited to participate in all negotiations and should be copied on all correspondence between SDG&E and bidders.

Procurement of CHP from Settlement Agreement

Sue Garcia | Manager - Settlements and
Systems

Settlement Agreement Overview

- CHP Settlement Agreement became effective on November 23, 2011
- California Target of 3,000 MW by 2020
 - SCE - 1,402 MW
 - PG&E - 1,387 MW
 - SDG&E - 211 MW
 - 160 MW (3 RFOs between November 2011 through November 2015)
 - 51 MW (Up to 4 RFOs between 2016 through 2018)
- GHG IOU Reduction Target is 2.72 MMT CO₂e of GHG annual reductions from CHP by 2020 (revised in D.15-06-028)
 - SCE - 1.22 MMT
 - PG&E - 1.22 MMT
 - SDG&E - 0.28 MMT

Impact of D.15-06-028 on SDG&E in the Second Program Period

- *Reduced SDG&E's GHG Reduction Targets as shown above.*
- *SDG&E will hold up to four CHP RFO's in the second program period, with the first occurring no later than February 24th, 2016.*
- *SDG&E's MW Target of 51 MW shall be procured no later than 2018.*
- *All offerers must provide a report from an independent, California-licensed professional engineer certifying that counterparty has a feasible written plan for the safe construction and operation of the generating facility in accordance with existing applicable state or federal standards and in compliance with Prudent Electrical Practices (as defined in the CHP PPA); a copy of the Safety Plan; and an attestation that the counterparty will abide with the Safety Plan and safety standards.*
- *GHG Accounting Changes*
 - *All renewable-fueled and bottoming-cycle CHP facilities will be considered "new" and treated as a GHG credit instead of neutral for GHG accounting purposes.*
 - *Existing efficient CHP facilities with no change in operations will count as a GHG reduction credit instead of neutral calculated against the previous two calendar years of data compared to the double benchmark.*

SDG&E and Supplier Diversity

<http://www.sempra.com/about/supplier-diversity>

Background on Diverse Business Enterprises (DBE) Program

General Order (GO) 156

- Adopted by the California Public Utilities Commission in 1986
- Promote greater competition among utility suppliers by expanding the available supplier base and to encourage greater economic opportunity for women, minority, and disabled veteran owned businesses historically left out of utility procurement
- In 2012 Electric Procurement was added to GO 156 reporting

Currently at SDG&E

- Supplier diversity goals are part of every executives' department goals and are a component of every employee's compensation goals
- **44.4%** of SDG&E's goods and services procurement dollars were spent with DBEs in 2014
- **33%** of our gas procurement dollars going to DBEs in 2014

DBE or SDVBE Firm Must Meet the Following Requirement

To be eligible for consideration under G.O. 156 a DBE or SDVBE a firm must have the following requirements for certification:

(1) a business enterprise:

(a) that is at least 51% owned by a minority or service disabled veteran individual or group(s) or

(b) if a publicly owned business, at least 51 % of the stock of which is owned by one or more minority groups, and

(2) whose management and daily business operations are controlled by one or more of those individuals.

Diverse Supplier Certification*

Minority, Woman or LGBT owned companies

- California Public Utilities Commission (CPUC) Supplier Clearinghouse (free)

Service Disabled Veteran Business

- State of California, General Services Office of Small and Disabled Veteran Business (OSDC)

NMSDC

- Regional affiliates of the National Minority Supplier Development Council (NMSDC)

Others

- Small Business Administration 8(a) (SBA)
- Women Business Enterprise Council (WBEC-WEST)
- State and municipal government agencies

**Certification does not guarantee any business enterprise the right to bid or receive a contract.*

GO156 Electric Procurement Reporting Progression

- **Year 2011** - All California IOUs were required to begin separate reporting on electric procurement spending (similar to gas procurement)
- **Year 2012** - SDG&E was the first California IOU to:
 - Contract long-term power purchase agreements in of renewable energy with DBE
 - Complete electric market wholesale transactions with DBEs

Year 2013 to date (Reference Section 1.E)

- SDG&E encourages Diverse Business Enterprises (“DBEs”), as defined in G.O. 156, to participate in the DBE program and in this RFO.
- SDG&E encourages developers to utilize DBEs during various stages of project development and construction. As a part of G.O. 156, SDG&E will require developers to identify and verify their DBE contractors/subcontractor spending, if any.
- Like other qualitative factors, in the event of a tie between two offers, SDG&E will consider a Respondent’s status as a DBE and or a Respondent’s plan to utilize the services of DBEs during project development.

Supplier Diversity Resources

SDG&E Supplier Diversity Team

Websites

- <http://www.sempra.com/about/supplier-diversity/>
- <http://www.cpuc.ca.gov/puc/supplierdiversity/>

Local SDG&E Power Supplier Advisory Panel (PSAP)

- Panel of SDG&E executives and employees, developers, DBEs and bankers focused on identify potential barriers to the participation of eligible DBEs in the electric procurement market, and work with regulatory agencies and DBEs to remove those barriers

Statewide IOU Supplier Diversity Roundtable (SDR)

- Representation of California IOUs executives and employees, developers, DBEs and bankers to promote and accelerate the entry of eligible DBEs into the electric procurement market in an open and transparent forum
- 3 Working Groups: Wholesale, RA and Subcontracting Indirect Spend

Supplier Diversity Contact Information

Erica Beale

Program Manager -Supplier Diversity & Supplier Relations SDG&E

EBeale@semprautilities.com

858-636-5538

Brad Mantz

E&FP DBE Ambassador & Energy Contracts Originator

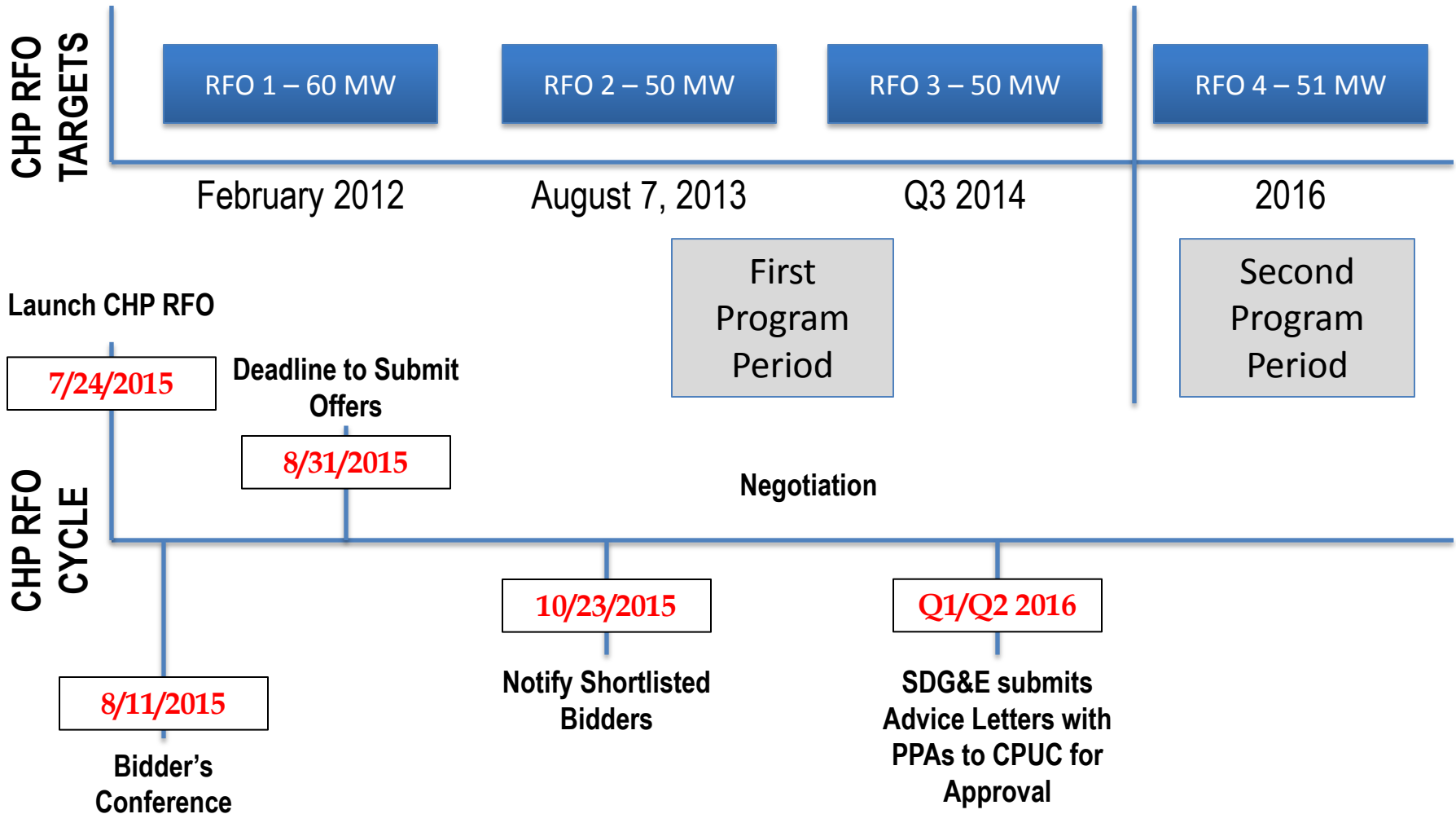
BMantz@semprautilities.com

858-654-1588

2015 CHP RFO Eligibility and Timeline

Scot Rolfe | Principal Origination Analyst

CHP RFO Program Cycle



Eligibility Requirements

Resource Types:

Existing Combined Heat and Power

- An Existing CHP Facility is one that was operational before the Settlement Effective Date (November 23, 2011)

New Combined Heat and Power

- A CHP Facility that became or will become operational after the Settlement Effective Date (November 23, 2011)

Repowered Combined Heat and Power

- A CHP Facility that has had its prime mover(s) replaced or refurbished per Exhibit A of the CHP Pro Forma PPA

Expanded Combined Heat and Power

- A CHP Facility that has increase the power rating per Exhibit A of the CHP Pro Forma PPA

Utility Prescheduled Facility (UPF)

- An Existing CHP Facility that has changed operations to convert the facility to a utility controlled scheduled dispatchable generation facility, including but not limited to an Exempt Wholesale Generator

Eligibility Requirements

Term Start Dates

Within 24 months of PPA Execution (Existing)

Within 36 months of CPUC Approval (Expanded)

Within 60 Months of CPUC Approval (New and Repowered)

Eligibility

Nameplate Capacity larger than 5 MW

Meets the definition of cogeneration under CPUC Code 216.6

Meets the Emissions Performance Standard established by the PUC 8341 (SB 1368)

Meets the federal definition of qualifying cogeneration under 18 CFR 292.205 implementing PURPA

UPF Only: CHP Facility that met the PURPA efficiency requirements (18 CF 292.205) as of September 2007 and converts to a Utility Prescheduled Facility

CHP RFO Product Offering

Generating Facility		CHP Base Load Facility	Utility Prescheduled Facility
Nameplate		Larger than 5 MW	
PPA Type		CHP Pro Forma PPA	SDG&E “UPF” PPA
Product		Base Load Energy	Dispatchable Energy, Capacity
Delivery Point		Within CAISO	
Economic Curtailment		Bidder may participate in Curtailment Option	Not Applicable
Pricing	Capacity (\$/kW-year)	As Bid	As Bid
	Heat Rate (\$/MMBtu) OR Strike Price (\$/MWh)	As Bid	As Bid
Term	W/out Credit and Collateral	Existing / Expanded	No More than 7 Years
	W/ Credit and Collateral	Expanded / Repowered	No more than 12 Years
		New	No more than 12 Years

Communications

- *Communications with SDG&E should be done by email (chprfo@semprautilities.com) until the short-list is selected*
 - This allows SDG&E to post Q&A such that all bidders have the same information before submitting bids
 - All e-mail communications should be cc'ed to the IE, Alan.Taylor@sedwayconsulting.com

Evaluation Process and IE Role

Scot Rolfe | Principal Origination Analyst

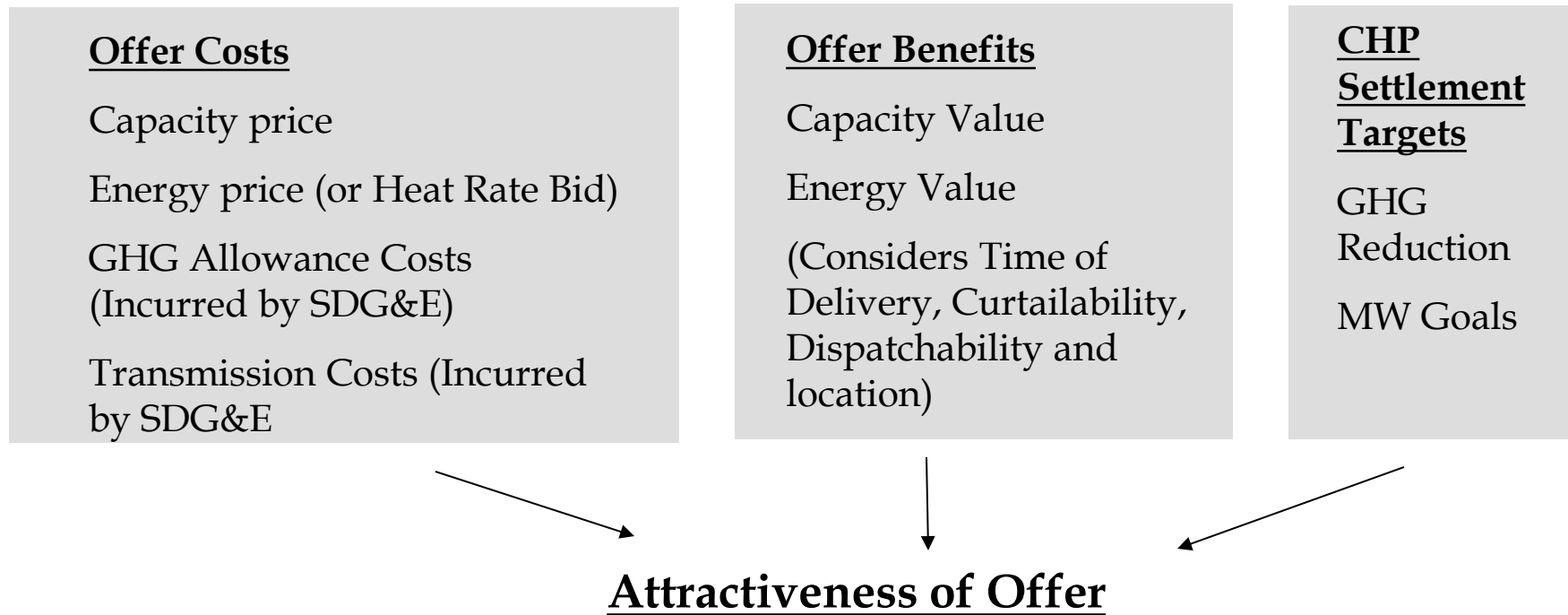
Bid Conformance and Data Management

- *Bids should comply with all the requirements of the RFO*
 - Any bids that are rejected because of conformance issues will be discussed with the IE
 - Any bids that are accepted that may have minor conformance issues will also be discussed with the IE
 - The goal is to ensure all bidders are treated in a fair manner
- *The IE will review and validate SDG&E's methods of processing the bid information and evaluating offers to ensure that the evaluation is done fairly with no preferential treatment to any bidder*

Affiliate Bids

- *An affiliate bid will be closely examined during the evaluation of the offer*
 - This ensures the offer is evaluated in the same manner as other offers
- *If an affiliate bid were to make the short-list, then all communications and negotiations will be closely monitored and assessed by IE*
 - This ensures no preferential terms and conditions are included in an affiliate offer

Economic Evaluation



The IE critiques and reviews the SDG&E's evaluation and ranking of offers to ensure all offers are assessed correctly and the lowest net market value combination of offers is selected for the short-list to meet the CHP Settlement goals.

New and Repowered Facilities

Project Viability

- Can influence the ranking of the offer
- The IE reviews any adjustments to the selection of offers to ensure that it is uniformly applied to offers and is reasonable
- The factors considered in project viability include:
 - i. Technology
 - ii. Bidder Experience (financing, construction, operation)
 - iii. Credit and collateral
 - iv. Permitting, site control and other site-related matters
 - v. Fuel status
 - vi. Transmission upgrades

Procurement Review Group (PRG) and IE Report

- *During the course of this RFO, IE will be reporting on the progress and any issues on this RFO to the PRG*
 - *The PRG includes CPUC Energy Division, DRA, TURN and other interveners*
 - This group oversees SDG&E's procurement process
-

IE Report

- *Public and confidential IE reports following the required IE template guidelines*
- *These reports are filed at the CPUC with the SDG&E request for contracts approval from the CPUC*

2015 CAISO Generator Interconnection & Deliverability Allocation Procedures

Bruno Velosa | Transmission Planning Team Lead

CAISO Generator Interconnection and Deliverability Allocation Procedures

Interconnection to SDG&E transmission system is governed by the CAISO's FERC approved Tariff:

- CAISO Tariff Appendix Y (GIP tariff) applies to interconnection requests through Cluster 4

http://www.caiso.com/Documents/TariffAppendixY_Nov5_2012.pdf

- CAISO Tariff Appendix DD (GIDAP tariff) applies to interconnection requests starting with Cluster 5

http://www.caiso.com/Documents/TariffAppendixDD_Nov4_2014.pdf

- **Cluster Windows:** Cluster 6, April 1st to April 30th 2013 and Cluster 7, April 1st to April 30th, 2014.

GIDAP PROCESS

-
- Interconnection Request (IR)

 - Scoping Meeting

 - Project Grouping

 - Phase I Interconnection Study

 - Phase II Interconnection Study

 - Posting of Financial Security

 - ❖ Large/Small Generator Interconnection Agreements (LGIA/SGIA)

Cluster Study Windows and IR

During the Cluster Study Windows, Interconnection Customers (ICs) must submit a completed **Interconnection Request (IR)** and provide evidence to demonstrate **Site Exclusivity** (or an additional \$250K for Large/\$100K for Small deposit in lieu of Site Exclusivity)

A completed IR includes:

- IR form
- Point of Interconnection (POI)
- Technical Data (Attachment A, Appendix 1)
- Voltage Level
- Study Deposit - \$50,000 plus \$1,000 per MW (\$250K max.)
- IC elects deliverability:
 - o Full Capacity (FC) - Delivery Network Upgrades for deliverability built, if needed, required to qualify for Resource Adequacy (RA) in PPA
 - o Partial Deliverability for ___% of electrical output
 - o Energy Only (EO) - No Delivery Network Upgrades for deliverability built, not qualified for RA

NOTE: For Cluster 5 under the CAISO Tariff Appendix DD, will address high cost & large scope DNU through the TPP.

Scoping Meeting and Project Grouping

- CAISO to schedule Scoping Meeting within 5 Business Days of the IR being deemed complete
- Scoping Meetings must be completed within 60 days of the close of the Cluster Study Window
- Face to Face project review with SDG&E and CAISO
- Sets the stage for development of the Phase I Study Agreement
- IC must designate Phase I Point of Interconnection (POI) within 3 Business Days of the Scoping Meeting
- CAISO tenders Phase I Study Agreement including study plan to IC within 10 Business Days of POI designation.
- IC to execute the Phase I Study Agreement within 30 days

After the Scoping Meetings, at the CAISO's option and in coordination with SDG&E, an IR may be studied individually or in a group study based on their interconnection points and shared transmission needs.

Phase I Interconnection Study

- Commences July 1st each year – Completed and Final Phase I Study report issued by year-end
- SDG&E - Reliability Network Upgrade (RNU) studies (a short circuit, stability, and power flow analysis, including off-peak analysis)
- CAISO - Delivery Network Upgrade (DNU) studies (an On-Peak and Off-Peak (for information only) Deliverability Assessment for FC projects, required to receive Resource Adequacy (RA) qualification for PPA)
- Preliminary identification of the Interconnection Facilities and Network Upgrades required for each IR - Assess the POI and potential alternatives
- Establish max. cost responsibility for RNU, Local Delivery Network Upgrades (LDNU), and Interconnection Facilities
- Phase I Study Results Meeting - within 30 Days of study completion
- Within 5 B-Days of Results Meeting, IC may submit to CAISO desired modifications to the IR, including: decrease in the electrical output of proposed project, modify technical parameters of facility, and/or modify the interconnection configuration.

Phase I Interconnection Study

- GIDAP Phase I results provide each project with cost cap for its RNU and LDNU
 - *Retains GIP provisions on security postings*
 - *LDNU cash reimbursement to align with TP deliverability allocation*
- **Phase I does not cap project exposure to ADNU costs**

Between Phase I and Phase II Interconnection Studies

- To continue to Phase II, IC must elect either Option (A) or Option (B)
- **Option (A)**
 - *Project requires TP deliverability to continue to commercial operation*
 - *Project posts security for RNU and LDNU*
- **Option (B)**
 - *Project is willing & able to pay for all Network Upgrades without cash reimbursement by ratepayers*
 - *Project posts security for RNU, LDNU, and ADNU*
 - *ADNU security posting equals \$/MW cost rate determined in Phase I Study, times project MW deliverability*
 - *ADNU no cash reimbursement, treated as merchant transmission, eligible for Congestion Revenue Rights (CRRs)*

Phase II Interconnection Study

- Commences May 1st each year – Completed and Final Phase II Study
- Updates analyses performed in the Phase I studies to account for changes, i.e. changes to IRs, withdrawal of Irs, as applicable
- Identifies final Network Upgrades (RNU, LDNU, ADNU) needed to physically interconnect the Generating Facilities and assigns responsibility for financing the identified final Network Upgrades
- Identifies ADNU cost estimates, but not cost caps for Option (B) projects
- Identifies final POI and SDG&E's and IC's Interconnection Facilities and provides cost estimate of the final SDG&E's and IC's Interconnection Facilities
- Phase II Study Results Meeting within 30 Days following Study completion. CAISO, SDG&E, and the IC discuss the Phase II Interconnection Study report, including selection of the final COD.

Note: CAISO shall coordinate the Phase I and Phase II Interconnection Studies with SDG&E and any Affected System Operators

Application of Posting Requirements for NUs to (A)& (B) Projects

<p style="text-align: center;"><i>Network Upgrades</i></p> <ul style="list-style-type: none"> •ADNU, LDNU, RNU for B projects •LDNU and RNU for A projects 			
Project Size	First Posting (Due 90 days after phase I study complete)	Second Posting (Due 180 days after phase II study complete)	Third Posting (Due at start of construction)
20 MW or less	<p>Lesser of</p> <ul style="list-style-type: none"> • 15% of phase I study estimated network upgrade costs • \$20,000 per MW <p>(but not less than the lesser of \$50,000, or the estimated cost of network upgrades)</p>	<p>Lesser of</p> <ul style="list-style-type: none"> • \$1 million • 30% of lower of phase I or phase II study estimated network upgrade costs <p>(but not less than the lesser of \$100,000, or the estimated cost of the network upgrades)</p>	100% of lower of phase I or phase II study estimated network upgrade costs
Greater than 20MW	<p>Lesser of</p> <ul style="list-style-type: none"> • \$7.5 million • 15% of Phase I estimated network upgrade costs • \$20,000 per MW <p>(but not less than the lesser of \$50,000, or the estimated cost of network upgrades)</p>	<p>Lesser of</p> <ul style="list-style-type: none"> • \$15 million • 30% of lower of phase I or phase II study estimated network upgrade costs <p>(but not less than the lesser of \$500,000, or the estimated cost of the network upgrades)</p>	100% of lower of phase I or phase II study estimated network upgrade costs

Generator Interconnection Agreements (LGIA & SGIA)

- Three-party agreement between the CAISO, SDG&E, and IC
- SDG&E to provide Draft GIA to IC within 30 Days of final Phase II Study report
- IC written comments/indication of no comments to the SDG&E and CAISO due within 30 Days of receipt of the Draft GIA
- Negotiations to be completed and GIA executed within ~120 Days following completion of Phase II Interconnection Study report.
- SDG&E and CAISO provide final GIA to IC within 15 Business Days after completion of GIA negotiation process.

Reimbursement of LDNU postings

- *All projects are reimbursed for RNU costs up to \$60,000 per MW of installed capacity after commercial operation.*
- *Option (A) and (B) projects allocated TP deliverability receive full reimbursement of LDNU postings after commercial operation.*
- *Option (A) projects not allocated TP deliverability that remain in queue as energy only are reimbursed for first LDNU posting.*
- *Option (B) projects not allocated TP deliverability are not eligible for reimbursement of LDNU or ADNU costs*

Generation Interconnection Information

SDG&E Interconnection Website: <http://www.sdge.com/generation-interconnections/overview-generation-interconnections>

- Download and review SDG&E Interconnection Handbook
- Links to CAISO interconnection queue, tariffs and websites
- Links to SDG&E interconnection queue, tariffs and websites
- Link to NERC/WECC Reliability Standards
- Links to Process Summaries
- Link to SDG&E Self Generation Technologies site

CAISO Generation Interconnection Process Contact:

- Lead Interconnection Specialist : Leslie Feusi (916) 351-2330
Lfeusi@caiso.com

SDG&E Contacts:

- Generation Interconnection Team Lead: Bruno Velosa (858) 654-8293
BVelosa@semprautilities.com
- Generation Interconnection Project Manager: Marlene Mishler (858) 654-8640
MMishler@semprautilities.com
- Energy Administrator: Dan McCarron (858) 637-7905 DMcCarron@semprautilities.com

Wholesale Distribution Open Access Tariff (WDAT) Generator Interconnection Process

Michael Iammarino | Customer Generation

Wholesale Distribution Open Access Tariff – Generator Interconnection Process (GIP)



Distribution Interconnections

- Wholesale Distribution Open Access Tariff (WDAT) is managed by SDG&E's Customer Generation group under the Transmission & Distribution Engineering Department
- SDG&E's distribution voltage is defined as facilities operating at 12.47 kV or below
- All Applications must be submitted to SDG&E's Customer Generation group
- Pursuant to SDG&E's WDAT Attachment H – Generator Interconnection Procedures (GIP)

Application Package

Distribution Interconnection Application Package

- **Complete Interconnection Request**
- **Site Control Evidence**
- **Site Plan Diagram**
- **Single Line Diagram**
- **Invoice sent to Interconnection Customer (IC)***

Application Location - <http://sdge.com/wdat>

Interconnection Package

Email to:

WDATSGIPAPPLICATIONS@semprautilities.com

Or mail to:

Customer Generation – CP52F

San Diego Gas & Electric

8316 Century Park Court

San Diego, CA 92123-1582

Processing Fee*

Customer Payment Services –

CP61C

San Diego Gas & Electric

PO Box 129831

San Diego, CA 92112-9831

Application Process Timeline: (Fast Track & Study Process)

Process Milestone	Duration	Responsible Party
Submit Application	Clock Starts	Interconnection Customer (IC)
Application Deemed Complete or Provide Notice of Additional Items	10 BD	SDG&E
Provide Additional Items or Requests Extension	Additional 10 BD	Interconnection Customer (IC)
Deem Application Complete or Withdraw Application		SDG&E

Sec 6.1

Reasonable Efforts

The Distribution Provider shall make reasonable efforts to meet all time frames provided in these procedures, including the payment of refunds, unless the Distribution Provider and the Interconnection Customer agree to a different schedule. If the Distribution Provider cannot meet a deadline provided herein, it shall notify the Interconnection Customer, explain the reason for the failure to meet the deadline, and provide an estimated time by which it will complete the applicable interconnection procedure in the process.

Fast Track & Study Process

Fast Track – approximately 6 months

- **Eligibility:**
 - i) ≤ 2 MW regardless of location on the circuit “or”
 - ii) ≤ 3 MW if located on mainline and ≤ 2.5 electrical circuit miles from substation
- **Must Pass Fast Track Screens under Section 2**
- **\$500 non-refundable processing fee + \$1,000 non-refundable study deposit**
- **Small Generator Interconnection Agreement (SGIA)**

Independent Study Process – approximately 18 months

- **Eligibility: Failed Fast Track or ≤ 20 MW**
- **Follow Section 3 Study Process**
- **\$800 non-refundable processing fee + study deposits:**
 - **Independent - \$10,000 (<5MW)**
 - **Facilities - \$15,000 (<5MW)**
- **Small Generator Interconnection Agreement (SGIA)**

Fast Track & Study Process (cont.)

Cluster Study Process – approximately 18 months

- **Generator Project (≤ 20 MW) grouped in a cluster with other projects**
- **Follow Section 4 Study Process**
- **Study deposit: \$50,000 + \$1,000/MW**
- **Small Generator Interconnection Agreement (SGIA)**

Study Process & Scoping Meeting

Scoping Meeting

- **Allows Face- to-Face Interactions with IC and SDG&E**
- **Review the Project**
 - **IC provides high level project overview**
 - **SDG&E Distribution Planning provides feedback, system information, suggests any alternatives**
- **Agree on a Point of Interconnection (POI) and generator size**
- **Review CAISO Metering & Telemetry requirements**
- **Determine Next Steps**
 - **System Impact Study/Phase 1**
 - **Facilities Study/Phase II**
 - **Small Generator Interconnection Agreement (SGIA)**

Study Process

Study	Timing	Study Procedures	Study Deposit
System Impact Study	60 BD	<ul style="list-style-type: none"> • Dynamic Analyses • Updated Interconnection Cost estimates 	$\leq 5 \text{ MW: } \$10,000$ <hr/> $> 5 \text{ MW: } \$50,000 + \$1000/\text{MW}$
Facilities Study	45/60 BD	<ul style="list-style-type: none"> • Electrical switching configuration • Cost of equipment, engineering, procurement and construction work • Time required to complete construction and interconnect • Final Interconnection Cost estimates 	$\leq 5 \text{ MW: } \$15,000$ <hr/> $> 5 \text{ MW: } \$50,000 + \$1000/\text{MW}$

Cluster Study Process

Study	Timing	Study Procedures	Study Deposit
Phase I (Start June 1)	170 CD	<ul style="list-style-type: none">• Dynamic Analyses• Updated Interconnection Cost estimates	\$50,000 + \$1,000/MW
Phase II (Start May 1)	205 CD	<ul style="list-style-type: none">• Electrical switching configuration• Cost of equipment, engineering, procurement and construction work• Time required to complete construction and interconnect• Final Interconnection Cost estimates	

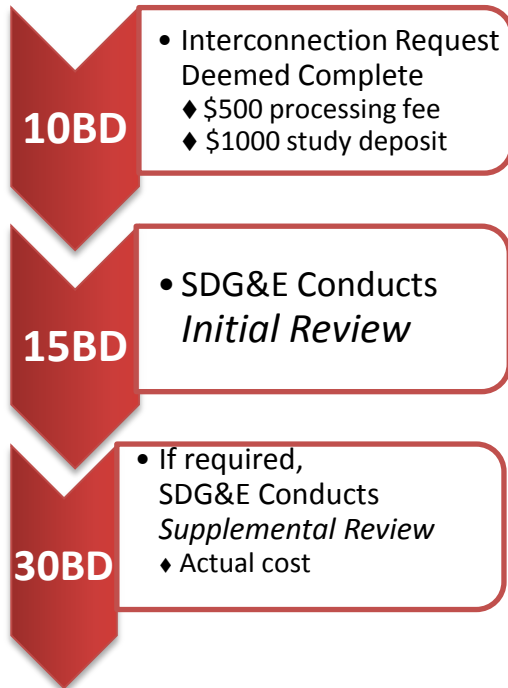
Small Generator Interconnection Agreement (SGIA)

SGIA - Small Generator Interconnection Agreement, ≤20MW

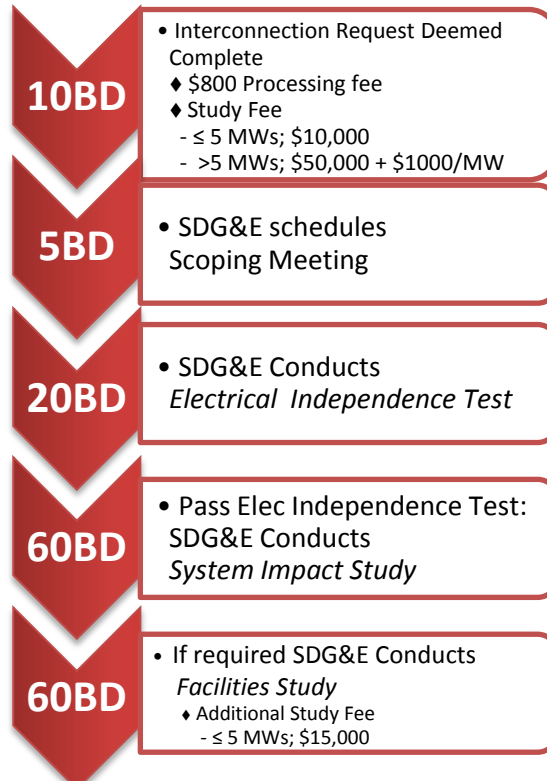
Process	Duration	Responsible Party
Following the Facilities Study/Phase II	30 CD	SDG&E
<ul style="list-style-type: none"> •IC executes SGIA; or •IC fails to execute SGIA; or •IC has not requested to file unexecuted SGIA; or •IC has not initiated Dispute Resolution; + Interconnection Request Deemed Withdrawn	120 CD	Interconnection Customer (IC)
		SDG&E
		SDG&E & IC

Flow Charts & Timing

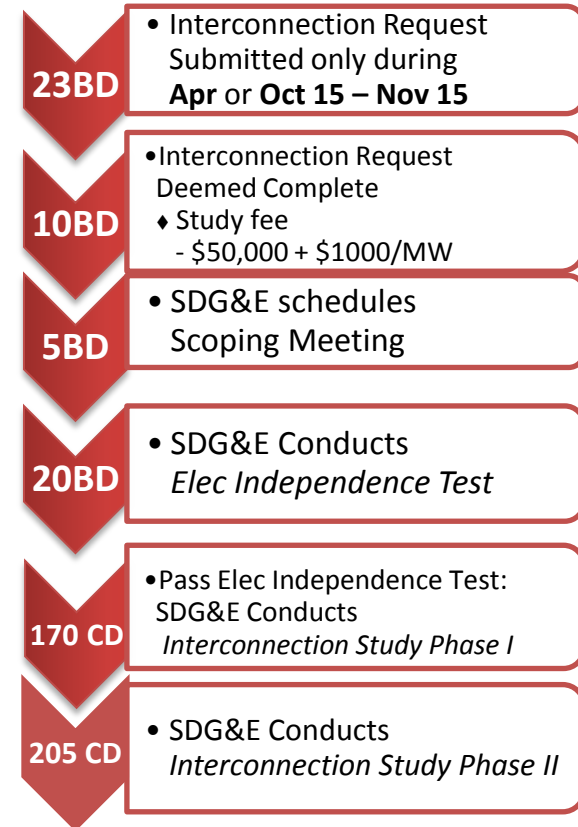
Fast Track



Independent Study Process (Energy only)



Cluster Study Process (Energy only)



Interconnection Agreement

Contact Information

Ken Parks
San Diego Gas & Electric
8316 Century Park Court, CP52F
San Diego, CA 92123
Office: (858) 636-5581
kparks@semprautilities.com
sdge.com/wdat

RFO Materials

Scot Rolfe | Principal Origination Analyst

RFO Materials

- 2015 CHP RFO Document (.pdf)
- Project Description Form (.doc)
- Offer Form (.xlsx)
- Credit Application (.doc)
- Pro Forma CHP PPA (.doc)
- UPF Tolling PPA (.doc)

All documents are located on the 2015 CHP RFO website:

<http://www.sdge.com/2015-request-offers-seeking-chp-power-purchase-agreements>

Solicitation Document

- **2015 CHP RFO Document**
 - Project Description Form
 - Offer Form
 - Pro Forma CHP PPA
 - UPF Tolling PPA
- Provides a background and procurement process overview
 - Sets up Eligibility Requirements
 - Interconnection Requirements
 - An overview and participation eligibility of SDG&E's CHP RFO
 - RFO schedule and deadlines
 - Evaluation Criteria
 - Required Forms and Documentation
 - Communications, Q&A and etc.

Project Description Form

- 2013 CHP RFO Document

- **Project Description Form**

- Offer Form
- Pro Forma CHP PPA
- UPF Tolling PPA

Additional Information on the Project/Facility submitted into SDG&E's CHP RFO:

- System and Equipment Description
- Operating Parameters
- Site Description, Site Control and Condition
- Permitting Plans
- Environmental Information
- Other

Offer Form Overview

- 2013 CHP RFO Document
- Project Description Form
- **Offer Form**
- Pro Forma CHP PPA
- UPF Tolling PPA

- Bidders (regardless of PPA type) are encouraged to populate all fields of the Offer Form. Where text is required, be brief as you will be required to submit a project description document which will allow for narrative responses.

Form Field Key(s):

Free Form Field
Pull Down Menu
Calculated Field
Comment Field

- Green fields are data entry fields.
- Orange fields are pull-down menus
- Blue fields are calculated for reference
- Purple fields contain comments to help clarify input requirements

How to Prepare a Conforming Bid

Remember the basics

- All bidders must submit at least two offers. One offer will have the bidder responsible for the GHG allowance costs and the other will have SDG&E responsible for some or all the GHG allowance costs
- Conform entries to the units designated on the forms
 - Numbers entered in columns marked “MWh” are megawatt-hours, “\$/MWh” are in dollars per megawatt-hour, etc.
 - Deliveries based on AC, not DC
 - Profiles should be in average generation per hour
 - Don’t overlook the drop-down boxes, or put text in numeric fields
- Check to see that the data in the offer form and the project description form are consistent
- Complete all relevant sections of the form
 - Blank cells will assumed to be “zero” and will be filled with zeroes if necessary
- **DO NOT** add new worksheets or change worksheet names

Each RFO requires processing many bids and all their documents. Little time is available to check with bidders regarding inconsistencies on pricing forms.

PPA Election

San Diego Gas and Electric Company (“SDG&E”) is issuing this 2013 CHP RFO to achieve its megawatt (“MW”) and Greenhouse Gas (“GHG”) Emissions Reductions Targets, established in the CHP Program Settlement Agreement that was approved by the CPUC Decision 10-12-035. This RFO solicits offers from owners and operators of existing or new CHP Facilities.

Option A

Any CHP Facility with a nameplate larger than 5 MW may bid into the CHP RFO, including CHP Facilities seeking firm and as-available capacity PPAs, provided that the CHP Facility meets the definition of cogeneration under California Public Utilities Code §216.6 and the Emissions Performance Standard established by Public Utilities Code §8341 (Senate Bill 1368). A CHP Facility must meet the federal definition of a qualifying cogeneration facility under 18 CFR §292.205 implementing PURPA.

Option B

This RFO also provides for CHP Facilities converting to Utility Prescheduled Facilities. A CHP Facility that met the PURPA efficiency requirements (18 C.F.R. §292.205) as of September 2007 and converts to a Utility Prescheduled Facility is also eligible to participate in the CHP RFOs. After the Existing CHP Facility converts to a Utility Prescheduled Facility, it may be either a Qualifying Facility or an Exempt Wholesale Generator if the facility otherwise meets the criteria in Section 4.2.2.2. Option B can be bid for incremental capacity above the amount bid for Option A.

Pro Forma CHP PPA:

New,
Existing
Repowered, or
Expanded

Utility Prescheduled Facility:

Existing CHP
wishing to change
operations to
“UPF”

Sellers Election of Option

Option A - Pro Forma CHP

Contact & Other Information

Contact Information

Primary Contact Information:

Name:	<input type="text"/>	<input type="text"/>
Title:	<input type="text"/>	<input type="text"/>
Company:	<input type="text"/>	<input type="text"/>
E-Mail:	<input type="text"/>	<input type="text"/>
Phone Number:	<input type="text"/>	<input type="text"/>

Secondary Contact Information:

Name:	<input type="text"/>	<input type="text"/>
Title:	<input type="text"/>	<input type="text"/>
Company:	<input type="text"/>	<input type="text"/>
E-Mail:	<input type="text"/>	<input type="text"/>
Phone Number:	<input type="text"/>	<input type="text"/>

Bidder Information:

Business Address 1	<input type="text"/>	<input type="text"/>
Business Address 2	<input type="text"/>	<input type="text"/>
City	<input type="text"/>	<input type="text"/>
State	<input type="text"/>	<input type="text"/>
Zip Code	<input type="text"/>	<input type="text"/>

Credit Ratings

Moody's	<input type="text"/>	<input type="text"/>
S&P	<input type="text"/>	<input type="text"/>
Fitch	<input type="text"/>	<input type="text"/>
Other Please Specify	<input type="text"/>	<input type="text"/>

State of Business Registration

<input type="text"/>	<input type="text"/>
----------------------	----------------------

General Information

Bidder or Contact listed above is an affiliate of SDG&E?	<input type="text"/>	<input type="text"/>
Bidder or Contact listed above has one or more contracts with SDG&E?	<input type="text"/>	<input type="text"/>
Bidder or Sponsor is certified as a Diverse Business Entity (DBE)?	<input type="text"/>	<input type="text"/>

Bidder Contact Information required for RFO questions and notifications.

Required for notification of short-list status

Required by the PPA and will aid in streamlining the conformance checking process

Project Information

General Information:

Parent Company to Project Company
 Project Company Legal Name
 Project Name
 Project Address 1
 Project Address 2
 Project City
 Project State
 Project Zip Code
 Project Latitude
 Project Longitude



Information required for Program reporting purposes

Generating Unit Details:

Facility Name
 Facility Vintage
 Will Meet Credit Requirements
 CAISO Resource ID
 Unit Scheduling Coordinator ID
 California Air Resources Board ID
 California Energy Commission ID
 Energy Information Administration ID



Will be used for PPA and will aid in streamlining the conformance checking process

Transmission Interconnection

Point of Interconnection
 Interconnection Voltage (kV)
 Name of Nearest 230kV Substation
 Service Territory
 If Other please provide:
 Existing Zone
 Delivery Point
 Delivery Restrictions (If any)



Required for Capacity Benefit and Congestion Cost Analysis.

Project Status (1 of 2)

Project Information

QF Contract Expiration Date

Only applicable to New or Expanded Facilities

Project Start Date:

Financing Secured:

Engineering Start:

Construction Start:

Commissioning Start:

Commercial Operation Date:

This form is required to confirm eligibility and conformance.

Electric Interconnection

Interconnection Agreement Status

CAISO Full Deliverability Status?

Interconnection Agreement Start Date

Interconnection Agreement Term

Interconnecting Utility

Interconnection Level

Approximate Interconnection Voltage

Required for conformance checking

For New, Expanded, and Repowered Facilities Only

Interconnection process

Interconnection Capacity

Queue Position (If Applicable)

CAISO Cluster Number (If Applicable)

Estimated Reliability Upgrade Costs

Estimated Deliverability Upgrade Costs

Estimated Date of Interconnection

A Phase 1 study or WDAT study is an eligibility requirement.

Project Status (2 of 2)

Fuel Interconnection

- Facility has fuel supply agreement?
- Fuel resource can support production profile?
- Fuel agreement Start Date
- Fuel agreement term
- Fuel Supplier

For Natural Gas Facilities Only

- Fuel Interconnection Agreement Status
- Gas Interconnection Level
- Gas Interconnection Point

Water Interconnection and Source

- Facility has water interconnection agreement?
- Water rights can support production profile?
- Water Utility

Thermal Host

- Facility has a thermal host for the Useful Thermal Energy Output
- Name of thermal host:
- Thermal Host is viable through term of contract
- Description of thermal host use

Approvals

- FERC approved QF CHP facility?
- California approved QF CHP facility?



Status of various interconnections is required for conformance checking. If the field is not applicable simply insert "N/A"

Permits

Permitting Status*

REQUIRED PRIOR TO BEGINNING CONSTRUCTION		Issuing Agency	Date of Application/Filing	Date Granted	Expiration
AFC	Authorization for Construction	CEC			
APCP	Air Pollution Control Permit	APCD			
BBP	Bridge Building Permit	DPLU			
BP	Building Permit	DPLU			
GP	Grading Permit	DPLU			
HP	Health Permit	DEH			
MUP	Major Use Permit	DPLU			
NPDESP	National Pollutant Discharge Elimination System Permit	SWRCB			
SPPE	Small Power Plant Exemption	CEC			

REQUIRED PRIOR TO COMPLETING CONSTRUCTION		Issuing Agency	Date of Application/Filing	Date Granted	Expiration
EP	Encroachment Permit	CDOT			
SAA	Streambed Alteration Agreement	CDFG			

REQUIRED PRIOR TO HANDLING HAZARDOUS MATERIALS ON SITE		Issuing Agency	Date of Application/Filing	Date Granted	Expiration
HMP	Hazardous Materials Permit	DEH			

REQUIRED PRIOR TO COMMENCEMENT OF OPERATIONS		Issuing Agency	Date of Application/Filing	Date Granted	Expiration
CO	Certificate of Occupancy	DPLU			

REQUIRED PRIOR TO GENERATION OF ELECTRICITY		Issuing Agency	Date of Application/Filing	Date Granted	Expiration
MBR	Order Granting Borrower Market-Based Rate Authority	FERC			

OTHER REQUIRED PERMITS:		Issuing Agency	Date of Application/Filing	Date Granted	Expiration

Status of permits and applications are necessary for evaluation of project viability. If a permit is not required or applicable simply insert "N/A"

Design Information

Project Information

Generating Unit Specifications:

- Generating Facility Nameplate (MW)
- Facility Vintage
 - First Year of Commercial Operation
 - Year of Upgrade/Expansion
- Facility Design
- Primary Mover Technology
- Prime Mover Manufacturer(s)/Supplier(s)
- Primary Fuel Type
- LHV/HHV Ratio (If Known)
- Secondary Fuel Type
- Secondary Uses
- Secondary Mover Technology
- Fuel Emission Factor (lbs CO₂e/MMBTU)
- Overall Generating Facility Heat Rate (MMBtu/MWh)

This information is required for the PPA and CHP Program reporting

Please populate form 6.b CEC-2843 Information

Generation Operations

- Avg Fuel Input HHV | **F avg** (MMBtu/Hr):
- Avg Electric Output | **P avg** (aMWh):
- Electric Heat Rate HHV (MMBtu/aMWh)
- Average On-site consumption (aMWh)
- Avg Electricity Exported (aMWh):
- Avg Mechanical Energy Output | **M avg** (Hp-hr)
- Avg Useful Thermal Output | **Q Avg** (MMBtu/Hr):
- Useful Energy Output (MMBtu)
- Output Efficiency (%)
- Carbon Dioxide Emissions Factor (lb/MMBtu)
- Other Green House Gases, Emission Factor (lb/MMBtu)
- Carbon Dioxide Equivalent Emission Factor (lbs. CO₂e/MMBtu)
- Approximate Cogen GHG (lbs CO₂e/hr)

Forecast	Historical
	0
	0
#DIV/0!	#DIV/0!
	0
	0
	0
	0
0	0
0	0
#DIV/0!	#DIV/0!
Will facility meet SB 1668 Requirement (1,100 lbs CO ₂ e/MWh)	

This information is used to calculate the GHG reduction credits GHG allowances costs

Form 6.b. CEC-2843 Information

Topping Cycle Historical or Predicted Fuel Energy Input and Energy Outputs												
	Standard Hours per Month	Full Load Hours	Fuel Energy Input	Net Electricity Generation	On-Site Electricity Use from CHP	Electricity Exported from CHP System	Useful Mechanical Energy Output from CHP System	CHP System Thermal Energy Output	CHP system Thermal Energy Return	Waste Heat to Thermal Host Facility	Host Site Thermal Energy Process Demand	Useful Thermal Energy Output
Units	HOURS	HOURS	MMBtu	MWh	MWh	MWh	HP-HR	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu
January-11	744											0
February-11	672											0
March-11	744											0
April-11	720											0
May-11	744											0
June-11	720											0
July-11	744											0
August-11	744											0
September-11	720											0
October-11	744											0
November-11	720											0
December-11	744											0
January-12	744											0
February-12	696											0
March-12	744											0
April-12	720											0
May-12	744											0
June-12	720											0
July-12	744											0
August-12	744											0
September-12	720											0
October-12	744											0
November-12	720											0
December-12	744											0
Wtd Avg		<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

This information is used to support analysis for GHG reduction credits.

Routine Maintenance

Routine Maintenance and Testing

Month	Peak (hours)	Non-Peak (hours)	Total (hours)
January	0	0	0
February	0	0	0
March	0	0	0
April	0	0	0
May	0	0	0
June	No Outages allowed during this period	0	0
July		0	0
August		0	0
September	0	0	0
October	0	0	0
November	0	0	0
December	0	0	0
Total (hours)	0	0	0

Hours per Period for Reference

Peak (hours)	Non-Peak (hours)	Total (hours)
416	328	744
372	306	678
420	324	744
412	308	720
412	332	744
408	312	720
412	332	744
424	320	744
392	328	720
432	312	744
380	340	720
408	336	744
4888	3878	8766

Used to calculate adjusted annual energy production

There are a maximum of 550 Maintenance Outage hours per year (set forth in the CHP Pro Forma PPA)

Time Period Definitions	Summer	Winter	
	MAY 1 - SEPTEMBER 30	OCTOBER 1 - APRIL 30	
ON-PEAK (Peak)	11:00 a.m. - 6:00 p.m.	5:00 p.m. - 8:00 p.m.	Weekdays
SEMI-PEAK (Peak)	6:00 a.m. - 11:00 a.m.	6:00 a.m. - 5:00 p.m.	Weekdays
	6:00 p.m. - 10:00 p.m.	8:00 p.m. - 10:00 p.m.	Weekdays
OFF-PEAK (Non-Peak)	10:00p.m. - 12:00 mid.	10:00 p.m. - 12:00 mid.	Weekdays
	5:00 a.m. - 6:00 a.m.	5:00 a.m. - 6:00 a.m.	Weekdays
	5:00 a.m. - 12:00 mid.	5:00 a.m. - 12:00 mid.	Weekends
	5:00 a.m. - 12:00 mid.	5:00 a.m. - 12:00 mid.	Holidays
SUPER OFF-PEAK (Non-Peak)	12:00 mid. - 5:00 a.m.	12:00 mid. - 5:00 a.m.	All Days

Time of Day definitions provided for reference

Delivery Profile

Form Field Key(s):

Free Form Field
Pull Down Menu
Calculated Field
Comment Field

Energy Profile (aMWh)

Super Off-Peak
Off-Peak
Semi-Peak
Peak

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Super Off-Peak	155.0	141.3	155.0	150.0	155.0	150.0	155.0	155.0	150.0	155.0	150.0	155.0
Off-Peak	177.0	165.6	163.4	158.8	179.8	158.4	178.2	163.8	174.4	164.2	188.0	177.4
Semi-Peak	206.0	185.6	212.8	205.6	230.2	231.5	231.1	239.2	222.5	212.4	191.0	205.8
Peak	206.0	185.6	212.8	205.6	179.0	180.1	179.7	186.0	173.1	212.4	191.0	205.8

12x192 Energy Profile			EXPECTED NET GENERATION (aMWh)											
			WINTER				SUMMER					WINTER		
			January	February	March	April	May	June	July	August	September	October	November	December
Day Type	Hour Beginning	Hour Ending	1	2	3	4	5	6	7	8	9	10	11	12
SUN	12:00 AM	1	1	1	1	1	1	1	1	1	1	1	1	1
SUN	1:00 AM	2	1	1	1	1	1	1	1	1	1	1	1	1
SUN	2:00 AM	3	1	1	1	1	1	1	1	1	1	1	1	1
SUN	3:00 AM	4	1	1	1	1	1	1	1	1	1	1	1	1
SUN	4:00 AM	5	1	1	1	1	1	1	1	1	1	1	1	1
SUN	5:00 AM	6	1	1	1	1	1	1	1	1	1	1	1	1
SUN	6:00 AM	7	1	1	1	1	1	1	1	1	1	1	1	1
SUN	7:00 AM	8	1	1	1	1	1	1	1	1	1	1	1	1
SUN	8:00 AM	9	1	1	1	1	1	1	1	1	1	1	1	1
SUN	9:00 AM	10	1	1	1	1	1	1	1	1	1	1	1	1
SUN	10:00 AM	11	1	1	1	1	1	1	1	1	1	1	1	1
SUN	11:00 AM	12	1	1	1	1	1	1	1	1	1	1	1	1
SUN	12:00 PM	13	1	1	1	1	1	1	1	1	1	1	1	1
SUN	1:00 PM	14	1	1	1	1	1	1	1	1	1	1	1	1
SUN	2:00 PM	15	1	1	1	1	1	1	1	1	1	1	1	1
SUN	3:00 PM	16	1	1	1	1	1	1	1	1	1	1	1	1
SUN	4:00 PM	17	1	1	1	1	1	1	1	1	1	1	1	1
SUN	5:00 PM	18	1	1	1	1	1	1	1	1	1	1	1	1
SUN	6:00 PM	19	1	1	1	1	1	1	1	1	1	1	1	1
SUN	7:00 PM	20	1	1	1	1	1	1	1	1	1	1	1	1
SUN	8:00 PM	21	1	1	1	1	1	1	1	1	1	1	1	1
SUN	9:00 PM	22	1	1	1	1	1	1	1	1	1	1	1	1
SUN	10:00 PM	23	1	1	1	1	1	1	1	1	1	1	1	1
SUN	11:00 PM	24	1	1	1	1	1	1	1	1	1	1	1	1

The typical hourly schedule for weekdays, weekends, and holidays should be input here. For UPFs, input your historical operations.

Contract Pricing (1 of 5) – Contract Term and Bid ID

Select Applicable PPA	HP Pro Forma	If you are electing to change operations to UPF, please select 'CHP UPF' (Make sure this Matches Tab 1 For Tolling Resources, input forecast generation based historical operation)
Bid Number:	1	
Contract Start	1/1/2013	The term Start Date must be on the first day of the month
Term (Months)	90.0	Term must not exceed 144 months
Contract End	6/30/2020	The term End Date must be on the last day of the month
Term (Years)	7.5	

Energy Payment and Pricing Terms

Energy Payment Calculation Method	Variable	Variable payments will depend on the 'The simple average of natural gas market price indices from Natural Gas Intelligence, Platts Gas Daily and Natural Gas Week at the applicable Gas Index
-----------------------------------	----------	---

Please enter in your forecast energy profile in the 'Delivery Profile Tab'. (Based on Historical Operation)

Energy Profile (aMWh)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Super Off-Peak	155.0	141.3	155.0	150.0	155.0	150.0	155.0	155.0	150.0	155.0	150.0	155.0
Off-Peak	177.0	165.6	163.4	158.8	179.8	158.4	178.2	163.8	174.4	164.2	188.0	177.4
Semi-Peak	206.0	185.6	212.8	205.6	230.2	231.5	231.1	239.2	222.5	212.4	191.0	205.8
Peak	206.0	185.6	212.8	205.6	179.0	180.1	179.7	186.0	173.1	212.4	191.0	205.8

Outage Profile	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Off-Peak	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Peak	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0

Availability by Period (Hours)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Super Off-Peak	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Off-Peak	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Semi-Peak	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Peak	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Calculated Expected Yearly Generation	8,766
Calculated Expected Yearly Fuel Use	72,758

Contract Pricing (2 of 5) – Fixed Energy Price

The following section only applies to bidders wishing to bid on a fixed energy price basis:

	Price (\$/MWh)	
Contract Year 1	\$50.00	If the Fixed Energy Price has been selected, Energy Pricing adjusts only during the contract year specified. This will not be consistent with calendar year convention unless the term start date is coincident with January 1 of any given year.
Contract Year 2	\$50.00	
Contract Year 3	\$50.00	If the cells have been highlighted grey, then the price during that period will not be applicable to your bid. The highlighting is based on the proposed contract term above.
Contract Year 4	\$50.00	
Contract Year 5	\$50.00	
Contract Year 6	\$50.00	
Contract Year 7	\$50.00	
Contract Year 8	\$50.00	
Contract Year 9	\$50.00	
Contract Year 10	\$50.00	
Contract Year 11	\$50.00	
Contract Year 12	\$50.00	
Average Price (\$/MWh)	\$50.00	

Contract Pricing (3 of 5) - Variable Energy Price

The following section only applies to bidders wishing to bid on a variable energy pricing basis:

If the variable pricing method is used, the energy price for each contract is calculated using the following formula:

Heat Rate HHV (MMBtu)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Super Off-Peak	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300
Off-Peak	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300
Mid-Peak	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300
Peak	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300	8.300

Gas Index SoCal Border PG&E Citygate or SoCal Border

	Forecast Gas Price (\$/MMBtu)	Transportation Service (\$/MMBtu)	Variable O&M (\$/MWh)	Forecast Energy Price
Contract Year 1	\$8.00	\$0.00	\$0.25	\$66.65
Contract Year 2	\$8.00	\$0.00	\$0.50	\$66.90
Contract Year 3	\$8.00	\$0.00	\$0.75	\$67.15
Contract Year 4	\$8.00	\$0.00	\$1.00	\$67.40
Contract Year 5	\$8.00	\$0.00	\$1.25	\$67.65
Contract Year 6	\$8.00	\$0.00	\$1.50	\$67.90
Contract Year 7	\$8.00	\$0.00	\$1.75	\$68.15
Contract Year 8	\$8.00	\$0.00	\$2.00	\$68.40
Contract Year 9	\$8.00	\$0.00	\$2.25	\$68.65
Contract Year 10	\$8.00	\$0.00	\$2.50	\$68.90
Contract Year 11	\$8.00	\$0.00	\$2.75	\$69.15
Contract Year 12	\$8.00	\$0.00	\$3.00	\$69.40
Average Price	\$8.00	\$0.00	\$1.63	\$68.03

<---- This will be your approximate contract energy price

Contract Pricing (4 of 5)

Capacity Pricing and Payment Terms

Contract Capacity	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
Firm Capacity (MW)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
As-Available Capacity	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	
Utility Prescheduled Facilities should not bid in As-Available Capacity, Only Firm Capacity													
Net Qualifying Capacity ("NQC")													
Calculation by		CPUC, CAISO, Etc.											
	Firm Capacity Price (\$/kW-Year)	As-Available Capacity Price	Fixed O&M (\$/kW-Year)	Please provide capacity pricing in \$/kW-year. Fixed O&M is applied to Firm Capacity. As-Available Capacity pricing only applies to CHP Pro Forma Bids.									
Contract Year 1	\$100.00	\$0.00	0.00										
Contract Year 2	\$100.00	\$0.00	0.00										
Contract Year 3	\$100.00	\$0.00	0.00										
Contract Year 4	\$100.00	\$0.00	0.00										
Contract Year 5	\$100.00	\$0.00	0.00										
Contract Year 6	\$100.00	\$0.00	0.00		The As-Available Capacity Price is only applicable to Pro Forma PPA bids. If you are bidding in a Utility Prescheduled Facility do not populate the pricing fields with As-Available Pricing Data.								
Contract Year 7	\$100.00	\$0.00	0.00										
Contract Year 8	\$100.00	\$0.00	0.00										
Contract Year 9	\$100.00	\$0.00	0.00										
Contract Year 10	\$100.00	\$0.00	0.00										
Contract Year 11	\$100.00	\$0.00	0.00										
Contract Year 12	\$100.00	\$0.00	0.00										
Average Price	\$100.00	\$0.00	\$0.00		Simple Average for your reference								

Contract Pricing (5 of 5)

Seller Assumes [X%] of GHG Costs	50%	
Scheduler Coordinator Selection	SDG&E	

Participant must provide at least 1 bid where seller assumes 100% of GHG costs

Economic Curtailment Option

Participants electing this option, will be given some quantitative preference in the bid ranking process.

Calendar Quarter	On-Peak (MWhs)	Off-Peak (MWhs)	Total
January-March			0
April-June			0
July-September			0
October-December			0
Total (MWhs)	0	0	0

Max On-Peak	Max Off-Peak	Total
1209	957	1209
1232	952	1232
1232	976	1232
1218	990	1218
4891	3875	4891

Two bids will be required. SDG&E recommends starting with a bid whereby the seller assumes 100% of the GHG costs. Once that bid has been completed, the Seller should save a copy of the workbook and submit a second bid with an alternative GHG cost sharing proposal.

Bidders are offered the option to participate in a real-time economic curtailment program whereby SDG&E can curtail generation if CAISO market prices drop below \$0/MWh.

Credit & Milestones

Required for New, Repowered, or Expanded Facilities desiring a term greater than 7 years and up to 12 years.

Corporate Organizational Link	
Annual Report Link	
Link to Company Website	
Performance Assurance Option	
Performance Assurance Amount	

Milestones

Target Date	Milestone Name / Description
1/1/2014	Bid Expiration Date
1/2/2014	Project Start Date
1/3/2014	Financing Secured
1/4/2014	Permits Secured (CEC, Air District, local)
1/5/2014	Engineering Start
1/6/2014	Construction Start
1/7/2014	Commissioning Start
1/8/2014	Commercial Operation Date
1/9/2014	

Pro Forma and UPF Power Purchase Agreements*

- 2013 CHP RFO Document
- Project Description Form
- Offer Form
- **Pro Forma CHP PPA**
- **UPF Tolling PPA**
- Pro Forma CHP PPA
 - Meant for base load CHP Facilities greater than 5 MW.
 - Pro Forma and for the most part, non-modifiable
- Utility Prescheduled Facility (UPF)
 - An agreement where SDG&E dispatches the facility (or a part of it) on a pre-schedule basis and the facility is responsible for managing its own fuel (negotiable).

* SDG&E prefers that bidders do not make extensive modifications to the PPAs.

Bid Submission Process

Liz Paluso | Senior Origination Analyst

Registration and Logging On

Ways to Register:

1. First-time users must register on www.PowerAdvocate.com as a Supplier using the Referral information below to access this RFO event:

Referral Information

Are you registering for a specific Event: * Yes
 No, I would simply like to register.

Who referred you to this Event: *

Name of that individual's company: *

Name or description of the Event: *

2. Users with an existing PowerAdvocate® account may request for access to this event using the link below:

<https://www.poweradvocate.com/pR.do?okey=51352&pubEvent=true>

How to Log On:

1. Launch a web browser and go to: www.poweradvocate.com, and then click on the orange **Login** button.
2. Enter your account **User Name** and **Password** (both are case-sensitive)
3. Click **Login**.

The Supplier Dashboard

What information is displayed on my Dashboard?

Your Dashboard displays all bid events to which you have been invited.

Dashboard

Company Filter: All Companies

Fill-In Data Sheets

Event / Buyer	Msg	Open	Close	Download Documents	Upload Documents	Commercial	Technical	Pricing
190 -cbl-1: 190 First St. Cable/Wiring Electric Power Utility		05/16/10 8:00 AM EDT	06/08/10 4:00 PM EDT	1	2	3	4	5
T42g: Colorado River Sluice Gates Great Western Utilities	1/1	04/04/10 10:00 AM EDT	06/30/10 4:00 PM EDT	1	2	3	4	5
1998-01: Grid Expansion Electric Power Utility		09/01/10 8:00 AM EDT	12/29/10 4:00 PM EST	1	2	3	4	5

Open and Pending Pre-Bid events

Pending (not Pre-Bid) and Closed events

Buying entity

Event name/number

Number of unread/total messages; click to access the Messaging tab.

The numbers on the Dashboard represent a general workflow, though you can work in any order:


- 1 Download the bid package.
- 2 Upload bid documents, proposals, etc.
- 3 4 5 Fill in online datasheets if present.

Accessing the RFO Event and Submitting Documents

How to Access the RFO Event from Dashboard:

1. To download the RFO package, click  or the **1. Download Documents** tab.

- RFO Document
- Offer Form
- Project Description
- Credit Application
- Pro Forma PPAs

2. To upload documents, click  or the **2. Upload Documents** tab. Select the “Commercial and Administration” Document Type, then click **Browse** to navigate to your document and click **Open**. Finally, click **Submit Document**.

- Offer Form (.xlsx)
- Project Description Form (.doc)
- CEC-2843 Application Form
- Electric Interconnection Information
- Credit Application (.doc)
- Redline forms of the Applicable PPA (.doc or .docx)

More Information & Additional Help

PowerAdvocate Support

- Support@poweradvocate.com
- (857) 453-5800

Online Help

- Access the Help System at any time by clicking on the **Help** button



Dashboard Profile Company **Help** Logout

Event Dashboard

Fill-In Data Sheets

Event	Msg	Open	Close	Download Documents	Upload Documents	Commercial	Technical	Pricing
35697 : 2013 SDGE Energy RFP Sempra Energy		05/02/13 5:00 PM EDT	05/14/13 4:00 PM EDT	1	2	3	4	5

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Please submit your questions by
August 14, 2015

to

chprfo@semprautilities.com