Welcome to the SDG&E 2012 Request for Offers Combined Heat and Power (CHP) Pre-Bid Conference

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2012 Request for Offers Combined heat and Power (CHP) Pre-Bid Conference

March 7, 2012 | 9:30am to 12:30pm Energy Innovation Center, Cabrillo "C" Room 4760 Clairemont Mesa Blvd | San Diego, CA 92117 http://www.sdge.com/business/eic/index.shtml



<u>Anti-trust:</u>

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 2012 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, the RFO Materials shall govern.



Overview and Agenda (Juancho Eekhout)



Meet the Team

Names	Roles
Juancho Eekhout	Director of Origination & Portfolio Design
Erica Beal	Manager, Diverse Business Enterprise
Sue Garcia	Manager of Settlements and Systems
Peter DeFazio – CHP Program Manager Maria Boldyreva – CHP Program Advisor Keith Durand – CHP Contract Originator	Origination and Portfolio Design
Rodney Winter	Project Manager, Generation Interconnection
Ken Parks	Manager, Customer Generation
Georgetta Baker Abby Snyder	Regulatory Legal Commercial Legal
Mike Katz	Independent Evaluator (Van Horn Consulting)



Independent Evaluator

- Van Horn Consulting has been retained as the Independent Evaluator (IE) for this solicitation
 - Mike Katz michaelkatzenergy@yahoo.com
- The primary 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.



Agenda*

Welcome (Juancho Eekhout)			
SDG&E and Supply Diversity (Erica Beal)			
CHP Settlement Overview (Sue Garcia)	9:55		
RFO Overview (Peter DeFazio)	10:15		
Interconnection (Rodney Winter)			
BREAK	11:15		
BREAK	11:15		
BREAK 	11:15 11:30		

* Agenda and times are subject to change



SDG&E and Supplier Diversity (Erica Beal)

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



General Order (GO) 156

- Adopted by the California Public Utilities Commission in 1986
- Promote greater competition among utility suppliers by <u>expanding the available supplier base</u> and to encourage greater economic opportunity for <u>women, minority, and disabled</u> <u>veteran owned businesses</u> historically left out of utility procurement

Fast Forward to 2010 at SDG&E

- "Advancing supplier diversity is more than just a priority for San Diego Gas & Electric® (SDG&E®); it's become part of our company's DNA." – Jessie Knight, CEO, SDG&E
- Supplier diversity goals are part of our compensation goals
- 38% of our procurement dollars going to diverse business enterprises (DBEs)



- For 2011, utilities are required to add separate reporting on electric procurement spend
- IOUs are currently working with CPUC to develop a standard reporting definitions
- Completing outreach efforts with DBEs in renewable and conventional markets including today's <u>CHP RFO</u>



Minority- or woman-owned company

 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.*



Lana Radchenko Supplier Diversity Manager, SDG&E <u>Lradchenko@semprautilities.com</u> 858-654-0268

Erica Beal DBE Program Manager <u>EBreeden@semprautilities.com</u> 858-636-5538



Procurement of CHP from Settlement Agreement (Sue Garcia)



Settlement Agreement Overview

- 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 over 48 Months after Settlement Effective Date)
 - 51 MW (2016 through 2020)
- GHG IOU Reduction Target is 4.3 MMT CO2e of GHG annual reductions from CHP by 2020
 - SCE -1.96 MMT (45.6%)
 - PG&E -1.89 MMT (43.9%)
 - SDG&E 0.45 MMT (10.5%)

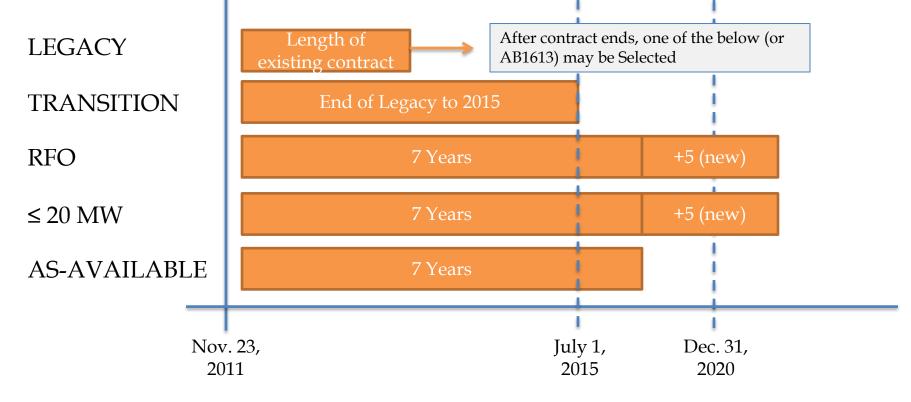
CHP Settlement Agreement became effective on November 23, 2011



Settlement Contract Options for CHP

• New CHP and existing CHP not under contract at the Settlement Effective date, that provide GHG reduction, will have an opportunity to bilaterally negotiate, bid into an RFO, or sign a must-take contract.

• Existing contract CHP will have, in addition to the above options, the opportunity to sell their output through Legacy Amendments (to UPF) and/or Transition Contracts.



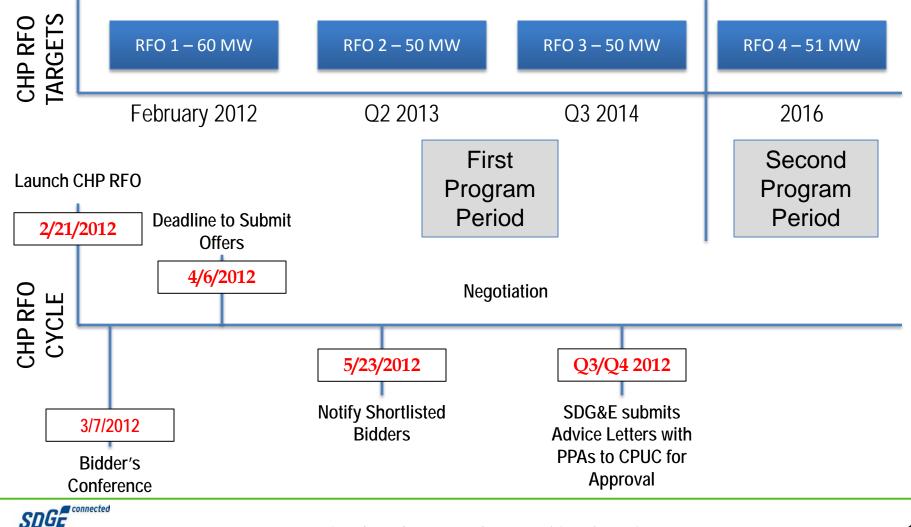


2012 CHP RFO (Peter DeFazio)



CHP RFO Program Cycle

A 💦 Sempra Energy utility"



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 added at least one new combustion turbine and increase the power rating per Exhibit A of the CHP Pro Forma PPA

Utility Prescheduled Facility

 Any CHP Facility that has changed operations to convert the facility to a utility dispatchable generation facility or new facility wishing to participate as a utility prescheduled facility including but not limited to an Exempt Wholesale Generator



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		
РРА Туре		CHP Pro Forma PPA	SDG&E "UPF" PPA	
Product		Base Load Energy, NQC/RA	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
	W/out Credit and Collateral	Existing / Expanded	No More than 7 Years	
Term	W/ Credit and Collateral	Expanded / Repowered	No more than 12 Years	
		New	No more than 12 Years	N/A



2012 CAISO Generator Interconnection Process (GIP) (Rodney Winter)



Interconnection to SDG&E's Transmission System

- SDG&E Transmission Voltage 69 kV and above
- 2010 CAISO merged Large Generator Interconnection Procedures (LGIP) and Small Generator Interconnection Procedures (SGIP) into one process, Generator Interconnection Procedures (GIP) - in response to mounting issues with the SGIP.
 - Large Projects > 20MW (2 Studies)
 - Small Projects < or = 20MW (2 Studies)
- 2012 CAISO Transmission Planning Process (TPP) Generator Interconnection Procedures (GIP) Integration

Interconnection to SDG&E's Distribution System

- SDG&E Distribution Voltage 12.47 kV and below
- WDAT Large Generator Interconnection Procedures (LGIP)
 Applies to Projects > 20MW
- WDAT Small Generator Interconnection Procedures (SGIP)
 - Applies to Projects < or = 20MW
- SDG&E Rule 21



CAISO Generator Interconnection Process (GIP) Summary

CAISO Tariff Appendix Y (GIP tariff)*

Interconnections to the transmission system are governed by FERC (CAISO tariff). Total study process will take approximately 27 months –

* CAISO proposal to integrate Transmission Planning Process (TPP) and GIP <u>http://www.caiso.com/informed/Pages/StakeholderProcesses/TransmissionPlanning_GenerationIntegration.aspx</u>

- Cluster Windows *- one each year (Cluster 5 ending March 31) (Cluster 6, Cluster 7 ending April 30)
- 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)



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 Large/\$100K 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:
 - Full Capacity (FC) Optional network upgrades for deliverability built if needed, required to receive Resource Adequacy (RA) payment in PPA
 - Energy Only (EO) No network upgrades for deliverability built, no RA payment

NOTE: Through Cluster 4, Costs for Deliverability Network Upgrades (DNUs) are shared by all projects in a cluster study group choosing FC. For Cluster 5 on*, tariff modifications will address high cost & large scope DNUs through the TPP. * CAISO TPP-GIP Integration proposal



- 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 April/May 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 Deliverability Network Upgrade (DNU) studies (an On-Peak and Off-Peak Deliverability Assessment for FC projects, required to receive Resource Adequacy (RA) payment in 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 and Local Delivery Network Upgrades (LDNU)*, and Interconnection Facilities cost estimate.
- 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, or facility step-up transformer impedance characteristics, and modify the interconnection configuration

* CAISO TPP-GIP Integration proposal



Between Phase I and Phase II Interconnection Studies

- RNU Reliability Network Upgrades, identified in GIP studies; specific to generation project, required to address a problem that cannot be managed through market congestion management
- LDNU "Local" Deliverability Network Upgrades, more specific to generation project locations identified in GIP studies (No security posting required)
- ADNU "Area" Delivery Network Upgrades, large upgrades, provide deliverability to generation development grid areas identified through TPP (Security posting required, no reimbursement)

To continue to Phase II, IC must elect either Option (A) TPP-based deliverability, responsible for RNU and LDNU, or Option (B) willing to also pay for ADNUs (without reimbursement)

(A) => the project requires TP deliverability to continue to commercial operation; or,

(B) => the project is willing and able to pay for all network upgrades without cash reimbursement by ratepayers.

CAISO TPP-GIP Integration proposal



Between Phase I study results and prior to the start of Phase II study: – ISO to provide latest comprehensive transmission plan and establish resource portfolios to be used in the new TPP cycle,

- ISO to perform a baseline re-study to assess impacts on previously identified network upgrades, update status on prior queued projects and project withdrawals, and will include both reliability and deliverability assessments.

...both of which provide additional/useful information for ICs to decide whether to enter Phase II and, if so, under which option – Option (A) or (B).

Additional details at CAISO Website, **Transmission Planning and Generator Interconnection Integration***

<u>http://www.caiso.com/informed/Pages/StakeholderProcesses/Transmis</u> <u>sionPlanning_GenerationInterconnectionIntegration.aspx</u> ...to be developed by the CAISO.

*CAISO TPP-GIP Integration proposal



- Commences May 1st each year Completed and Final Phase II Study report issued November 30th each year.*
- Updates analyses performed in the Phase I studies to account for changes, i.e. changes to IRs, withdrawal of IRs as necessary
- 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 final POI and SDG&E's and IC's Interconnection Facilities and provides 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

* CAISO TPP-GIP Integration proposal



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

	Network Upgrades •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	 Lesser of 15% of phase I study estimated network upgrade costs \$20,000 per MW (but not less than the lesser of \$50,000, or the estimated cost of network upgrades) 	 Lesser of \$1 million 30% of lower of phase I or phase II study estimated network upgrade costs (but not less than the lesser of \$100,000, or the estimated cost of the network upgrades) 	100% of lower of phase I or phase II study estimated network upgrade costs		
Greater than 20MW	 Lesser of \$7.5 million 15% of Phase I estimated network upgrade costs \$20,000 per MW (but not less than the lesser of \$50,000, or the estimated cost of network upgrades) 	 Lesser of \$15 million 30% of lower of phase I or phase II study estimated network upgrade costs (but not less than the lesser of \$500,000, or the estimated cost of the network upgrades) 	100% of lower of phase I or phase II study estimated network upgrade costs		

* These requirements are the same as existing tariff requirements.



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.

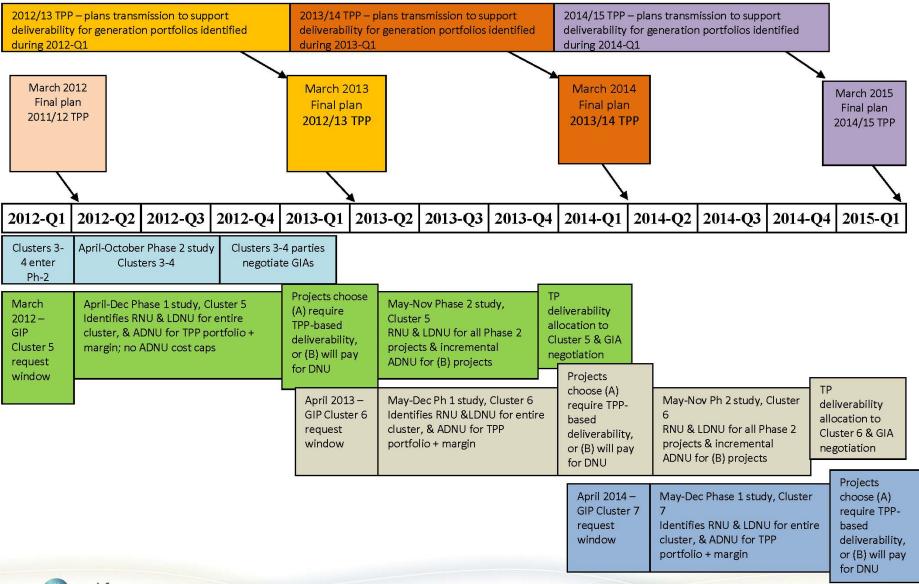
Interconnection to the SDG&E portion of the CAISO controlled grid:

- Interconnection Facilities are funded by the IC (IC not reimbursed)
- Network Upgrades required to interconnect a new generator are funded by IC
- Rate payers ultimately pay for Network Upgrades needed to interconnect new generation
- IC is reimbursed (with interest) for RNU costs after the project goes commercial

* CAISO TPP-GIP Integration proposal



Timeline for Integrated TPP and GIP



California ISO Shaping a Renewed Future

SDG&E Interconnection Website: http://www.sdge.com/generationinterconnections

- Download and review SDG&E Interconnection Handbook
- Links to CASIO 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 : Judy Brown (916) 608-7062

JBrown@caiso.com

SDG&E Contact:

- Generation Interconnection Project Manager: Rodney Winter
- (858) 654-1799

<u>RWinter@semprautilities.com</u>



Wholesale Distribution Open Access Tariff (WDAT) Small Generator Interconnection Process





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 kVLL or below
- All applications must be submitted to SDG&E's Customer Generation group
- Pursuant to SDG&E's WDAT Attachment D Small Generator Interconnection Procedures (SGIP)



Distribution Interconnection Application Package

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

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

Interconnectionn Package
Email to:
WDATSGIPAPPLICATIONS@semprautilities.com
Or mail to:Processing Fee*
Customer Payment Services –
CP61CCustomer Generation – CP52F
San Diego Gas & Electric
8316 Century Park Court
San Diego, CA 92123-1582San 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 4.1 Reasonable

Reasonable Efforts

The Distribution Provider shall make reasonable efforts to meet all time frames provided in these procedures 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 – approximately 6 months

- Generator Project does not exceed 2MW
- Must Pass Fast Track Screens under Section 2
- \$500 non-refundable processing fee + supplemental fees
- Small Generator Interconnection Agreement (SGIA)

Study Process - approximately 18 months

- Generator Project; Failed Fast Track or <=20MW
- Follow Section 3 Study Process
- \$1,000 non-refundable processing fee + study fees
- Small Generator Interconnection Agreement (SGIA)



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 & Telemetering requirements
- Determine Next Steps
 - Feasibility Study
 - System Impact Study
 - Facilities Study
 - Small Generator Interconnection Agreement



Study	Timing	Study Procedures	Study Deposit
Feasibility Study	50 BD	Steady State AnalysesInitial Interconnection Cost estimates	\$10,000
System Impact Study	90 BD	 Dynamic Analyses Updated Interconnection Cost estimates 	\$50,000
Facilities Study	110 BD	 Electrical switching configuration Cost of equipment, engineering, procurement and construction work Time required to complete construction and interconnect Final Interconnection Cost estimates 	\$100,000

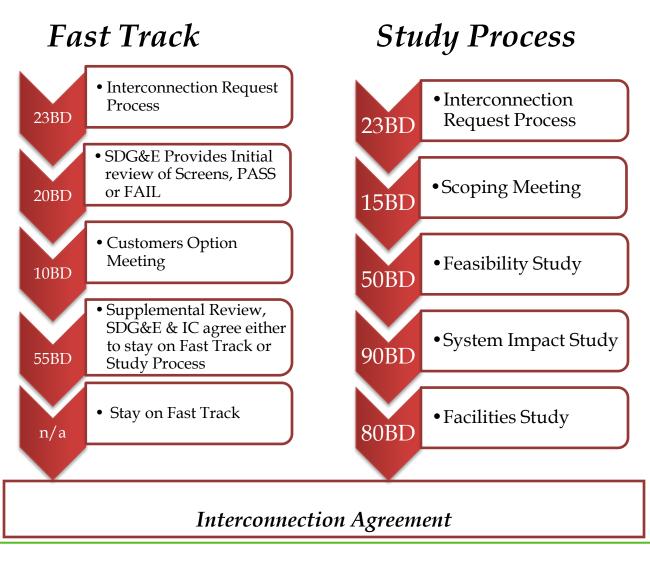


SGIA – Small Generator Interconnection Agreement, ≤20MW

Process	Duration	Responsible Party
Following the Facilities Study	5 BD	SDG&E
IC returns SGIA or Requests Extension:		Interconnection Customer (IC)
• SGIA not returned within 30BD,	20 85	SDG&E
SGIA Deemed Withdrawn • SGIA Executed or Request to file unexecuted SGIA with FERC	30 BD	SDG&E & IC



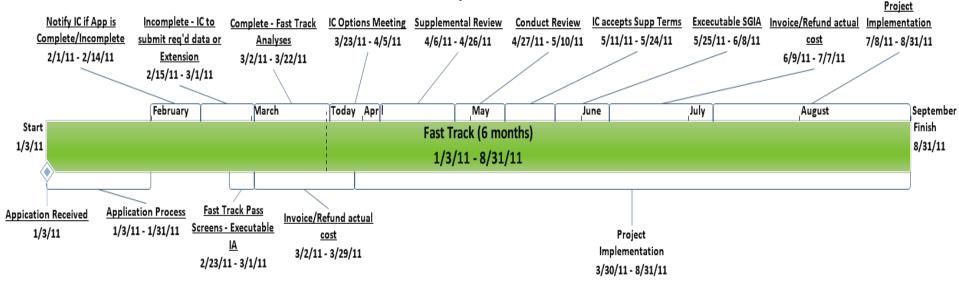
Flow Charts & Timing



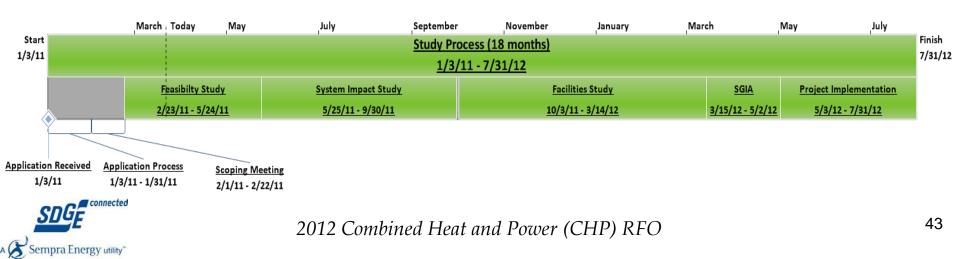


Timelines

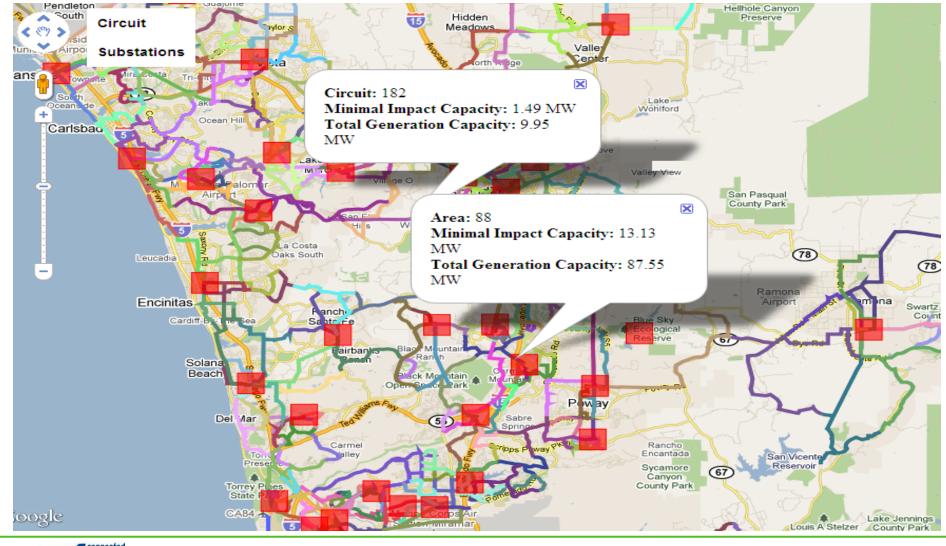




Ideal Study Process Project 1/3/2011 - 6/31/2012



Distribution Generation: Interactive Map





Registration form: <u>http://sdge.com/builderservices/dgmap/</u>

<u>Item</u>

Interconnect Request (IR)

Screen #10 – Installation of Distribution Facilities

Existing

- \$500 on-refundable process fee
- Includes SDG&E installation of IC facilities which is not an upgrade

Proposed

- \$1500 non-refundable
 fee: \$500 processing fee
 and \$1000 study deposit
 fee
- Eliminate utility interconnection facilities as upgrades



Proposed Changes to WDAT - SGIP - Study Process

<u>Item</u>

- Interconnect Request (IR)
- Independent Study Process Screen
- Feasibility Study
- Deliverability Study
- Posting of Financial Security

Existing

- \$1000 feasibility study deposit fee
- New
- SDG&E currently conducts
- New
- New

Proposed

- Study Deposit: \$50,000 + \$1000/MW
- To qualify, need to pass Electric Independence Test -i) CAISO determination and ii) Dist Provider determination; if failed, customer can request IR moved to Cluster Study
- Eliminate study; reduce timeline by 50 BD
- If eligible customer can request Deliverability Study
- Customer will be required to post an Initial, 2nd & 3rd postings that include both Ntwk Up Grades (UG) & Dist IC facilities & Dist UGs



<u>Item</u>

Interconnect Request (IR) Site Control IR Submittal Timing Interconnection Studies Additional Deliverability Option Posting of Financial Security

Proposed

- Study Deposit: \$50,000 + \$1000/MW
- Demonstrate Site Exclusivity; customer has option to post \$100,000 deposit in lieu of demonstration
- 2 Cluster Appl. Windows:
 - 1) March 1 March 31 and
 - 2) October 15th November 15th
- Consist of Phase 1 commences June 1 of each year; Phase 2 commences January 15th of each year
- Energy only customer can request Capacity Deliverability annually
- Customer will be required to post an Initial, 2nd & 3rd postings that includes both Ntwk Up Grades (UG) & Dist IC facilities & Dist UGs

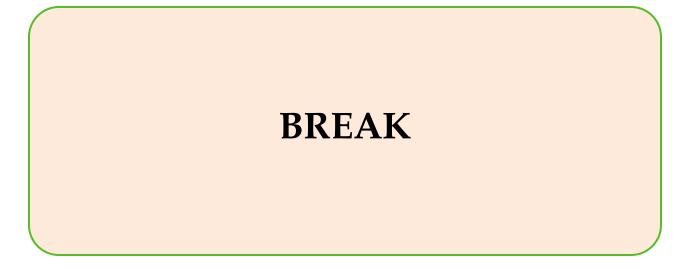


Ken Parks San Diego Gas & Electric 8316 Century Park Court, CP52F San Diego, CA 92123 Office: (858) 636-5581 KParks@semprautilities.com <u>sdge.com/wdat</u>



Please submit your questions by March 21, 2012 to <u>chprfo@semprautilities.com</u>







RFO Materials (Maria Boldyreva)



- 2011 CHP RFO Document
- Project
 Description
 Form
- Offer Form
- Pro Forma CHP PPA
- UPF Tolling PPA

http://www.sdge.com/2012CHPRFO

- 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
- Communication, Q&A and etc.



Project Description Form

- 2011 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, Site Control and Condition
- Permitting Plans
- Environmental Information
- Other



Offer Form Overview

ullet

- 2011 CHP RFO Document
- Project Description Form
- Offer Form
- Pro Forma CHP PPA
- UPF Tolling PPA

Bidders (regardless of PPA type) are encouraged to populate <u>all</u> 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



Remember the basics

- 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
- Please do not add new worksheets or change worksheet names

Each RFO requires processing hundreds of bids. There will be little time to check with bidders regarding inconsistencies on pricing forms.



PPA Election

San Diego Gas and Electric Company ("SDG&E") is issuing this 2012 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.

Sellers Election of Option

Option A - Pro Forma CHP

Pro Forma CHP PPA: New, Existing Repowered, or Expanded

Utility Prescheduled Facility: Existing CHP wishing to change operations to "UPF"



Contact & Other Information

Contact Information Primary Contact Information: Name: Title: Company: E-Mail: Phone Number: Secondary Contact Information: Name: Title: Company: E-Mail: Phone Number: Bidder Information: Business Address 1 Business Address 2 City State Zip Code Credit Ratings Moody's S&P Fitch Other Please Specify State of Business Registration General Information Bidder or Contact listed above is an affiliate of SDG&E? Bidder or Contact listed above has one or more contracts with SDG&E?

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



Bidder or Sponsor is certified as a Diverse Business Entity (DBE)?

Project Information

General Information:

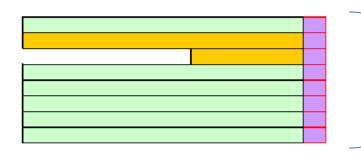
Parent Company to Project Company Project Company Legal Name Project Name Project Address 1 Project Address 2 Project City Project State Project Zip Code Project Latitude Project Longitude

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

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)





Information required for Program reporting purposes

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

Required for TRCR and Congestion studies.



Project Status (1 of 2)

Project Information

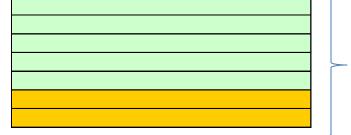
QF Contract Expiration Date

Only applicable to New or Expanded Facilities Project Start Date: Financing Secured: Engineering Start: Construction Start: Commissioning Start: Commercial Operation Date:

Electric Interconnection

Interconnection Agreement Status CAISO Full Deliverability Status? Interconnection Agreement Start Date Interconnecting Agreement Term Interconnecting Utility Interconnection Level Approximate Interconnection Voltage

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



This form is required to confirm eligibility and conformance.

Required for conformance checking



A phase 1 study is not 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

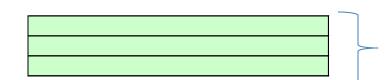
Facility has water interconnection agreement? Water rights can support production profile? Water Utility

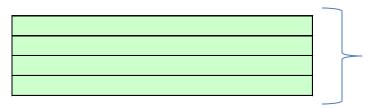
Thermal Host

- 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*

mitting statu		Issuing			
DUIRED PRIOR	TO BEGINNING CONSTRUCTION	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			
	National Pollutant Discharge Elimination System				
NPDESP	Permit	SWRCB			
SPPE	Small Power Plant Exemption	CEC			
EP	Encroachment Permit	CDOT			
-	TO COMPLETING CONSTRUCTION	Agency CDOT	Date of Application/Filing	Date Granteu	Expiration
SAA	Streambed Alteration Agreement	CDFG			
		Issuing			
UIRED PRIOR	TO HANDLING HAZARDOUS MATERIALS ON SITE	Agency	Date of Application/Filing	Date Granted	Expiration
HMP	Hazardous Materials Permit	DEH			
UIRED PRIOR	TO COMMENCEMENT OF OPERATIONS	Issuing Agency	Date of Application/Filing	Date Granted	Expiration
CO	Certificate of Occupancy	DPLU			P
		Issuing	,	1	
		-	Data of Application /Filing	Data Grantad	Evniration
QUIRED PRIOR	TO GENERATION OF ELECTRICITY Order Granting Borrower Market-Based Rate Authority	Agency FERC	Date of Application/Filing	Date Granted	Expiration

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

 Image: Constraint of the second s

Status of permits and applications is necessary for conformance checking. If a permit is not required or applicable simply insert "N/A"



Design Information

Project Information

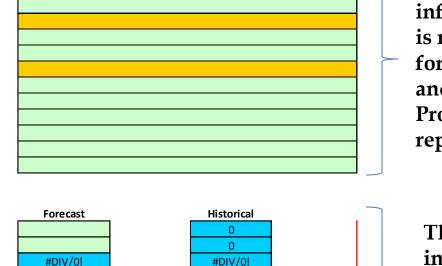
Generating Unit Specifications: Generating Facility Nameplate (MW) Facility Vintage First Year of Commercial Operation Year of Upgrade/Expansion Facility Design Primary Mover Technology Prime Mover Manufacturer(s)/Supplier(s) Primary Fuel Type LHV/HHV Ratio (If Known) Secondary Fuel Type Secondary Uses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

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 (Ib/MMBtu) Other Green House Gases, Emission Factor (Ib/MMBtu) Carbon Dioxide Equivalent Emission Factor (Ibs. CO2e/MMBtu) Approximate Cogen GHG (Ibs CO2e/hr)

Will facility meet SB 168 Requirement (1,100 lbs CO2e/MWh)





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This information is required for the PPA and CHP Program reporting.

This information to help SDG&E calculate the GHG reduction credit.

2012 Combined Heat and Power (CHP) RFO

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Topping Cycle Historical or Predicted Fuel Energy Input and Energy Ouputs

Topping cycle mitorie							Useful	CHP	CHP		Host Site	
					On-Site	Electricity	Mechanical	System	system	Waste Heat	Thermal	Useful
	Standard		Fuel	Net	Electricity	Exported	Energy	Thermal	Thermal	to Thermal	Energy	Thermal
	Hours per	Full Load	Energy	Electricity	Use from	from CHP	Output from	Energy	Energy	Host	Process	Energy
	Month	Hours	Input	Generation	CHP	System	CHP System	Output	Return	Facility	Demand	Output
Units	HOURS	HOURS	MMBtu	MWh	MWh	MWh	HP-HR	MMBtu	MMBtu	MMBtu	MMBtu	MMBtu
January-10	744											0
February-10	672											0
March-10	744											0
April-10	720											0
May-10	744											0
June-10	720			🔔 Thi	s infor:	mation	is used	to sup	port an	alysis		0
July-10	744								L	2		0
August-10	744			tor	GHG	reducti	on credi	its.				0
September-10	720											0
October-10	744											0
November-10	720											0
December-10	744											0
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
	<u>Wtd Avg</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>	<u>0</u>



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
Мау	0	0	0
June		0	0
July	No Outages allowed during	0	0
August	this period	0	0
September	une period	0	0
October	0	0	0
November	0	0	0
December	0	0	0
Total (hours)	0	0	0

Hours per Pe	riod for Refe	erence
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 MAY 1 - SEPTEMBER 30	Winter OCTOBER 1 - APRIL 30	
ON-PEAK (Peak)	11:00 a.m 6:00 p.m.	5:00 p.m 8:00 p.m.	Weekdays
	6:00 a.m 11:00 a.m.	6:00 a.m 5:00 p.m.	Weekdays
SEMI-PEAK (Peak)	6:00 p.m 10:00 p.m.	8:00 p.m 10:00 p.m.	Weekdays
	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
OFF-PEAK (Non-Peak)	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):	_	Energy Profile (aMWh)	JAN	FEB	MAR	APR	ΜΑΥ	JUN	JUL	AUG	SEP	ост	NOV	DEC
Free Form Field		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
Pull Down Menu		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
Calculated Field		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
Comment Field		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
Continent rield	-		20010	10010		20010	27510	10011	2750	100.0	1,011		10110	20010
			1	2	3	4	5	6	7	8	9	10	11	12
12	x192 Energy Pro	filo					EXPECT	ED NET GE	NERATION ((aMWh)				
12.	x192 Ellergy Pro			WIN	ITER				SUMMER				WINTER	
Day Type	Hour Beginning	Hour Ending	January	February	March	April	May	June	July	August	September	October	November	December
SUN	12:00 AM	1	1	1	<u> </u>	1	1	1	1	11	1	1	<u> 1_</u>	11
SUN	1:00 AM	2	1	1	<u> </u>	1	1	1	1	<u> </u>	11	1	<u> </u>	1
SUN	2:00 AM	3	1	1	1	<u> </u>	1	1	1	1	1	1	<u> </u>	1
SUN	3:00 AM	4	1	ı <u>1</u>	1	<u>1</u>	11	1	<u> </u>	11	1	1	<u>1</u>	<u> </u>
SUN	4:00 AM	5	1	l <u> 1 </u>	11	<u> 1_</u> _	1	1	<u> </u>	11	1	1	11	<u> </u>
SUN	5:00 AM	6	1	1	1	1	1	1	1	1	1	1	1	1
SUN	6:00 AM	7	1	1	<u> </u>	1	1	1	1	11	11	1	1	1
SUN	7:00 AM	8	1	1	<u> </u>	1	1	1	1	1	1	1	<u> 1</u>	1
SUN	8:00 AM	9	1	1	1	1	11	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 1	1
SUN	2:00 PM	15	1	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	1
SUN	4:00 PM	17	1	1	i 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 1	1
SUN	8:00 PM	21	1	1	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 1	1 1
SUN	10:00 PM	23	1	1	1	1	1	1	1		1	1	i <u>1</u>	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 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 Methe 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)

		l										
Energy Profile (aMWh)	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	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												
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 Dariad (Hours)					MAY	11.1.6.1			CED	0.07	NOV	DEC
Availability by Period (Hours)	JAN	FEB	MAR	APR	IVIAT	JUN	JUL	AUG	SEP	ОСТ	1101	
Super Off-Peak	JAN 100%	FEB 100%	MAR 100%	APR 100%	100%	100%	100%	100%	SEP 100%	100%	100%	100%
Super Off-Peak	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Super Off-Peak Off-Peak	100% 100%											
Super Off-Peak Off-Peak Semi-Peak	100% 100% 100%											
Super Off-Peak Off-Peak Semi-Peak	100% 100% 100%											
Super Off-Peak Off-Peak Semi-Peak	100% 100% 100%	100 100 100										



Contract Pricing (2 of 5) – Fixed Energy Price

	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
Contract Year 2	\$50.00	will not be consistent with calendar year convention unless the term start date is coincident with January 1 of
Contract Year 3	\$50.00	any given year.
Contract Year 4	\$50.00	
Contract Year 5	\$50.00	If the cells have been highlighted grey, then the price during that period will not be applicable to your bid. The
Contract Year 6	\$50.00	highlighting is based on the proposed contract term above.
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	

A fixed pricing scenario insulates gross contract revenues from gas price risk and is easier to budget around. The bidder is still responsible for energy production risk as payments are made only for generated electricity.



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 (MME	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	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 E	Border	PG&E City	gate or Soca	al Border							
	Forecast	Transport	Variable			Forecast						
	Gas Price	ation	O&M			Energy						
	(\$/MMBtu	Service	(\$/MWh)			Price						
Contract Year 1	\$8.00	\$0.00	\$0.25			\$66.65		Varia	hle ene	rov nri	cing w	·i11
Contract Year 2	\$8.00	\$0.00	\$0.50			\$66.90		Variable energy pricing will expose revenues to both				
Contract Year 3	\$8.00	\$0.00	\$0.75			\$67.15						
Contract Year 4	\$8.00	\$0.00	\$1.00			\$67.40		production risk and fuel pricing risk, but allows the				
Contract Year 5	\$8.00	\$0.00	\$1.25			\$67.65					۵	
Contract Year 6	\$8.00	\$0.00	\$1.50			\$67.90		-	0			
Contract Year 7	\$8.00	\$0.00	\$1.75			\$68.15		bidde	r to pas	ss-thro	ugh cos	sts
Contract Year 8	\$8.00	\$0.00	\$2.00			\$68.40		to the	utility	•		
Contract Year 9	\$8.00	\$0.00	\$2.25			\$68.65		-	J			
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						
Contract rear 12		Q0.00	+									



Contract Pricing (4 of 5)

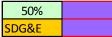
Capacity Pricing and Payment Terms

capacity i nemg an	<u>a i a j</u>											
Contract Capacity	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ОСТ	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 Pres	cheduled Fo	acilities sho	uld not bid	in As-Availa	able Capacit	y, Only Firn	n Capacity				
Net Qualifying Capac	tity ("NQC"))										
Calculation by			CPUC, CAIS	50, Etc.								
	Firm	As-	Fixed									
	Capacity	Available	0&M		Please pro	vide capaci	ty pricing ir	n \$/kW-yea	r. Fixed O&	M is applie	d to Firm	
	Price	Capacity	(\$/kW-		Capacity. A	As-Available	e Capacity p	ricing only	applies to	CHP Pro Fo	rma Bids.	
	(\$/kW-	Price	Year)		-							
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	The As-Available Capacity Price is only applicable to Pro Forma PPA bids. If								
Contract Year 5	\$100.00	\$0.00	0.00									
Contract Year 6	\$100.00	\$0.00	0.00	you are bidding in a Utility Prescheduled Facility do not populate the pricing								
Contract Year 7	\$100.00	\$0.00	0.00									
Contract Year 8	\$100.00	\$0.00	0.00		fields with As-Available Pricing Data.							
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 Ave	erage for yo	our referen	ce				



Contract Pricing (5 of 5)

Seller Assumes [X%] of GHG Costs Scheduler Coordinator Selection



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	

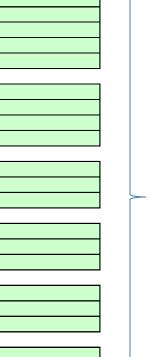


UPF Facility Information

Required for UPF Facilities Only

Number of Units Facility Maximum MW Output Facility Minimum MW Output Facility Heat Rate (HHV) at Maximum MW Output Facility Heat Rate (HHV) at Minimum MW Output Fuel Type Annual Operating Hours (exclusive of startup, shutdown, or maintenance time) Maximum number of Annual Starts Maximum Number of Daily Starts Total Cold Warm Hot Start-up time (Minutes) Cold Start to Synchronization Cold Start to Minimum Load Cold Start to 100% Capacity Ramp Rates (Minimum load is minimum sustainable load within emissions limits) Initial Synchronization to Minimum Load Minimum Load to Maximum Maximum Load to Minimum Startup Energy Start Initiation to Synchronization Synchronization to Minimum Load Startup Electrical Energy Required Off-Line Energy Consumption Assuming ready-to-start Black Start Capability Can facility be remote black started by SDG&E System Operations? Is operator dispatch required prior to Black Start? Time from receipt of dispatch order to first unit at minimum load? Time from receipt of dispatch order to last unit at minimum load? Black Start generator fuel type and source?

Minimum gas pressure req'd at gas meter to start the first Unit without fuel gas compressors?



If a facility wishes to bid in all or part of available capacity to be utility prescheduled SDG&E will need to know the following operating parameters.

This will help our front office team when they are putting together a dispatch schedule.



Pro Forma and UPF Power Purchase Agreements*

- 2011 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 is 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.



Evaluation Process and IE Role (Mike Katz)



Offer Costs

Capacity price

Energy price (or Heat Rate Bid)

GHG Allowance Costs (Incurred by SDG&E)

Transmission Costs (Incurred by SDG&E

Offer BenefitsCHP
Settlement
TargetsBid)Energy ValueGHG
Reduction(Considers Time of
Delivery, Curtailability,
Dispatchability and
location)MW Goals

Attractiveness of Offer

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-cost combination of offers is selected for the short list to meet the CHP Settlement goals



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



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
- *VHC will review and validate SDG&E's methods to take bid information and use it in the evaluation models*



Affiliate Bids

- An affiliate bid will be closely examine 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 to the short list, then all communications and negotiations are closely monitored and assessed by IE
 - This ensures no preferential terms and conditions are included in an affiliate offer



Communications

- Communications with SDG&E should done by email (<u>chprfo@semprautilities.com</u>) 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



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





