



October 24, 2014
Estimated time:
9:30 am to 2:00 pm

SDG&E 2014 All Source RFO Bidder's Conference

Second of three

3rd conference - EE, DR and Energy Storage only: 11/10

Teleconference/Webinar

By Phone: Call-in (866) 814-1917
Pass Code: 1646693

Audience link:
<https://engage.vevent.com/rt/sempra/index.jsp?seid=57>



Agenda

	Subject & Presenter	Estimated Time
1	Logistics and Legal Disclaimers	9:30AM – 9:35AM
2	SDG&E and Supplier Diversity	9:35AM – 9:50AM
3	Solicitation Overview – E&FP Team & Independent Evaluator Overview of the Independent Evaluator’s Role RFO Need, Schedule and General Conformance Requirements - Specific Product Type Resource Criterial and Eligibility Requirements Overview of Bidding Protocol Bid Submission Process (Power Advocate) Top 8 mistakes to avoid	9:50AM – 11:10AM
4	Break	11:10AM-11:20AM
5	RFO Evaluation Overview	11:20AM– 12:45PM
6	Contractual Requirements and Credit	12:45PM - 1:05PM
7	Utility owned storage	1:05PM – 1:25PM
8	General Q&A Session	1:25PM - 2:00PM

Logistics

- Logistics
 - Highlight of FAQs are included in this presentation
 - Interconnection related information has been moved to the Appendices
 - E3 presentation has been posted on the website and will be available during 3rd bidders conference on November 10 (in-person)
- Housekeeping questions?

General Q&A Guidance

- SDG&E has posted (and will continue to post) questions and answers on the All Source solicitation website (<http://www.sdge.com/all-source-2014-rfo>)
 - Q&A's that apply to all product types are included on the main page (General, Evaluation, Interconnection and Credit); product type specific Q&As will be included on the page for each product type
- Questions from today will be written down; all questions and answers will be posted on the RFO website
- Questions can be submitted to AllSourceRFO@semprautilities.com at any time until the question submittal deadline
- Questions received (and answers) will be posted to the website periodically
- Deadline to submit questions: November 14, 2014
 - SDG&E will post the final set of answers no later than December 1, 2014 (offers are due on January 5, 2015)

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 2014 All Source 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

SDG&E and Supplier Diversity

Brad Mantz
Supplier Diversity Champion

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

Diverse Supplier Initiative

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 who have been historically left out of utility procurement

Fast Forward to 2014 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, former CEO, SDG&E*

- Supplier diversity goals are part of our compensation goals
- 45% of our procurement dollars are being spent with diverse business enterprises (DBEs)

New GO 156 Electric Procurement Requirements

- Starting in 2012, Utilities were required to add separate reporting on electrical procurement spends
- The California IOUs developed standard reporting formats and definitions with the CPUC
- The IOUs continue their outreach efforts with DBE firms in all markets – conventional, renewable, capacity and other products including those that are being solicited in this RFO

Supplier Diversity Certification*

- 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.*

Supplier Diversity Contact Information

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DBE Program Manager

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Brad Mantz

Energy Contracts Originator & E&FP Diversity Lead

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Role of the Independent Evaluator

Barbara Sands
PA Consulting

Independent Evaluator Introduction and Role

- Jonathan Jacobs and Barbara Sands of PA Consulting Group will be the Independent Evaluators (“IEs”) for this solicitation. Both Jonathan and Barbara have been the IE for previous SDG&E’s RFOs (e.g., RPS, RAM, all-source RFO and peaking capacity RFO)
 - The role of the IE is to ensure that SDG&E’s evaluation of bids is transparent and that all bidders are treated fairly and equitably
 - The IE is expected to assure that affiliate and utility owned bids are not favored
 - The IE oversees SDG&E’s Cost Development Team and Evaluation Team
 - The IE will also ensure that bid compliance decisions are fair
 - The IE oversees the modeling of the bids including how each bid is represented the models

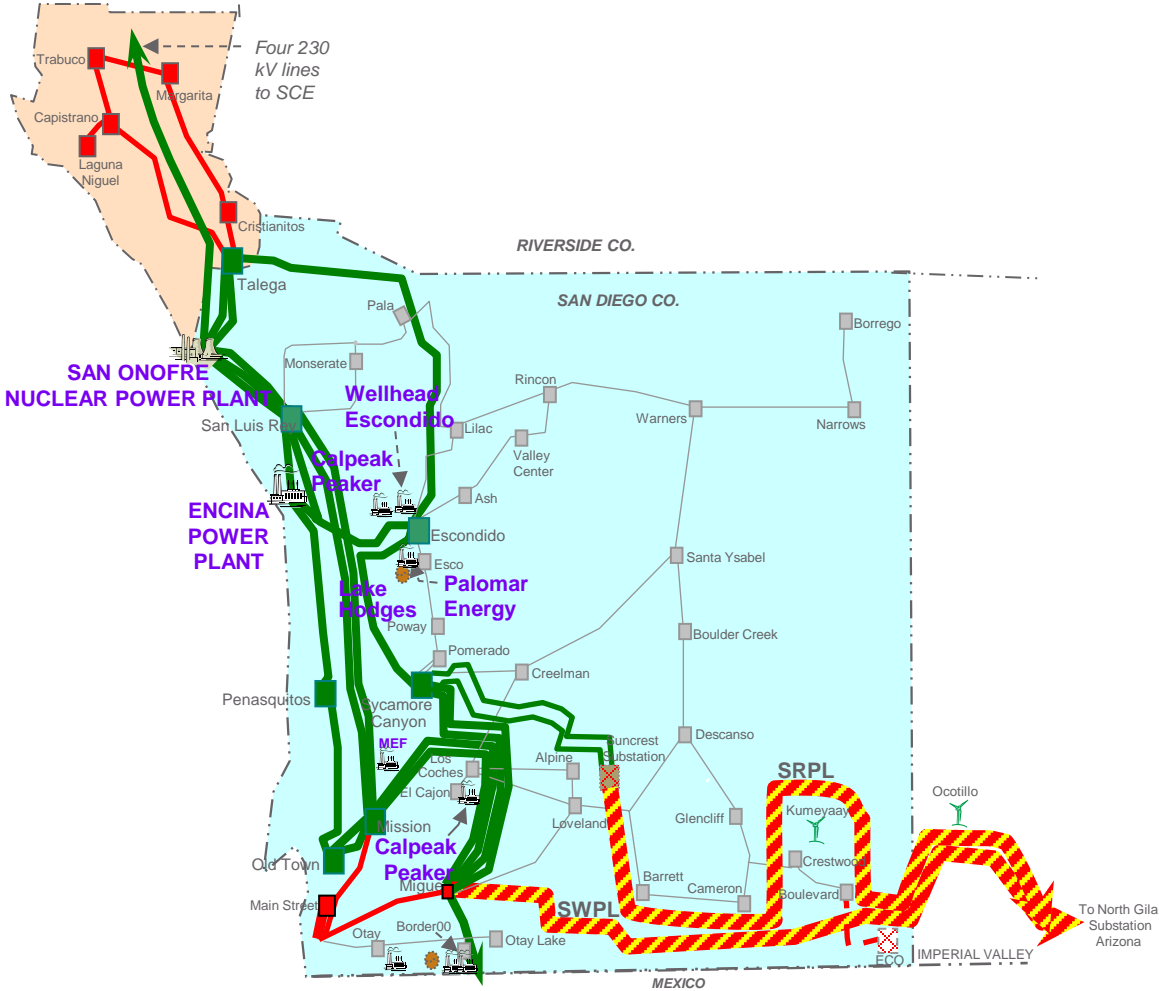
The IE provides advice to SDG&E on evaluation issues as they arise

RFO Need / Schedule / General Conformance Requirements

Pat Charles
E&FP Origination Analytics Manager

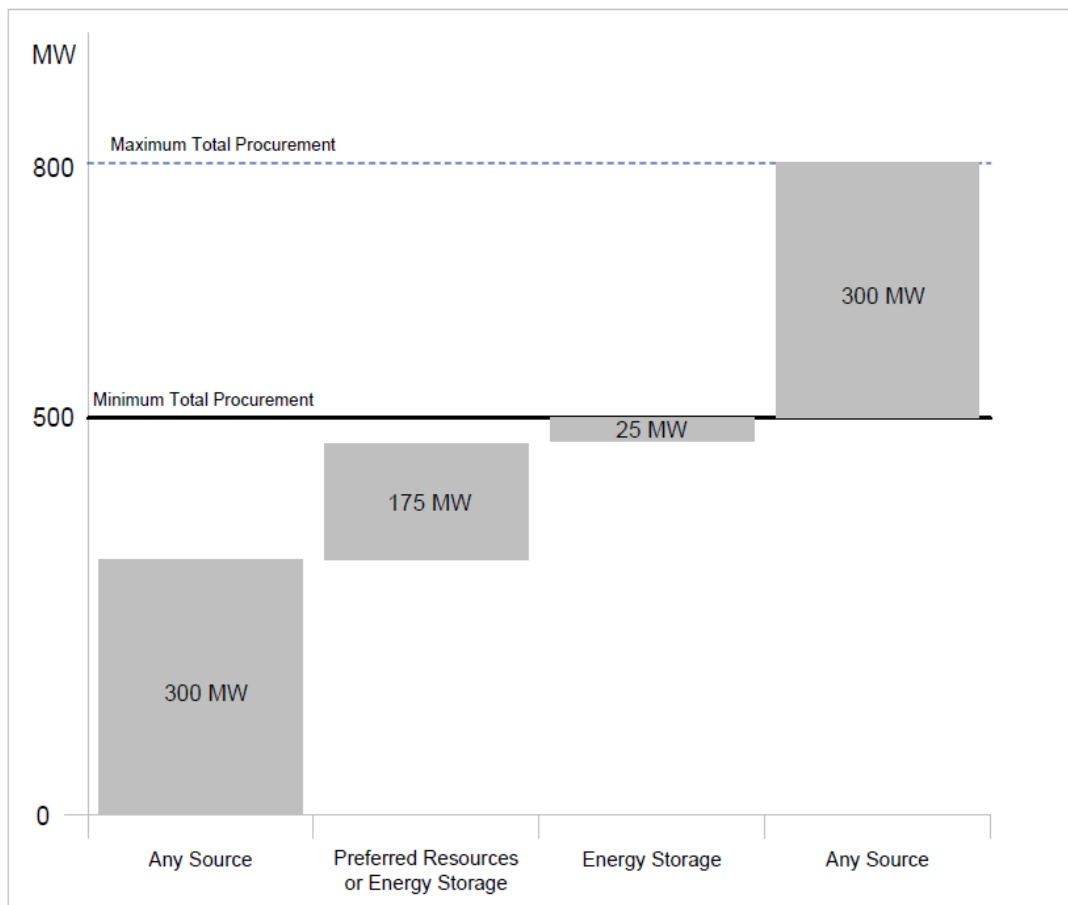
<http://www.sdge.com/all-source-2014-rfo>

Major Sources of Local Power



RFO Need

- SDG&E is authorized to procure:
 - Up to 800 MW of energy storage
 - Up to 775 MW of preferred resources (not including energy storage)
 - Up to 600 MW from ‘any source’, such as conventional resources, or
 - Some combination thereof totaling up to 800 MW
- SDG&E has separately requested Commission approval for the Carlsbad Energy Center (A.14-07-009)
 - If approved, 600 MW of SDG&E’s need will be filled by this contract
- SDG&E is soliciting:
 - Third party-owned, contracted resources for all product types (EE, DR, Renewables, CHP, DG, Energy Storage and Conventional)
 - In addition, SDG&E is soliciting energy storage systems to be owned by SDG&E



RFO Schedule

No.	Item	Date
1	RFO Issued	September 5, 2014
2	Pre-Bid Conference / Bidder Outreach Events	1) September 26, 2014 (All resource types) 2) October 24, 2014 (All resource types - conference call / webinar only), and 3) November 10, 2014 (EE, DR and Energy Storage only)
3	DEADLINE for ESSEPC Respondents to provide a written expression of interest to SDG&E (e-mail to AllSourceRFO@semprautilities.com or other written correspondence) containing company name and contact information	5pm, October 1, 2014
4	DEADLINE TO REGISTER for RFO Website access / to download RFO forms and documents	December 1, 2014
5	DEADLINE TO SUBMIT QUESTIONS Question submittal cut-off date. Answers to all questions will be posted on the website no later than December 1, 2014.	November 14, 2014

RFO Schedule

No.	Item	Date
6	CLOSING DATE: Offers must be uploaded to and received by the RFO Website no later than 1:00 PM Pacific Prevailing Time on January 5, 2015.	January 5, 2015
7	SDG&E Begins Bid Evaluation Process	January 6, 2015
8	SHORTLIST NOTIFICATION SDG&E notifies Shortlisted Bidders	June 5, 2015
9	SHORTLISTED BIDDERS ACCEPTANCE/WITHDRAWAL Letter due from Shortlisted Bidders indicating: a. Withdrawal from SDG&E's solicitation; OR b. Acceptance of shortlisted standing and including Shortlist Acceptance Fee	+10 Days after Shortlist Notification
10	SDG&E issues appreciation notices to unsuccessful Respondents	+3 Weeks after Shortlisted Bidders
11	SDG&E commences with contract negotiations	+11 Days after Shortlist Notification
12	SDG&E submits agreements for CPUC approval	Q1 2016
	* Negotiation time will vary depending on proposal specifics including proposed contract modifications.	

RFO Conformance Requirements

- This solicitation is for Local Capacity Requirements (LCR) as authorized in the Track 4 Decision (D.14-03-004)
- Four main conformance requirements for all resource types:

Location

- Resources must be located / must interconnect within the Local San Diego Subarea
- For programs, customers enrolled must be located within SDG&E's service territory

Resource Adequacy

- The resource must qualify to count for RA / meet the RA counting rules / provide 'RA Value' (energy efficiency / load modifying DR)

Incremental

- The resource must be 'demonstrably incremental' to the assumptions used in the CAISO studies done that underlie the 500 – 800 MW authorization

Contract Term

- SDG&E will consider all contract terms
- SDG&E does have preferences
- some portion of contract term MUST encompass 2022

RFO Conformance Requirements - Location

‘San Diego Local subarea projects are those located in SDG&E’s service territory connecting to SDG&E owned transmission or distribution facilities at a point that is at or electrically west of the Miguel or Suncrest substations and electrically south of the San Onofre Nuclear Generating Station 230 kV switchyard’

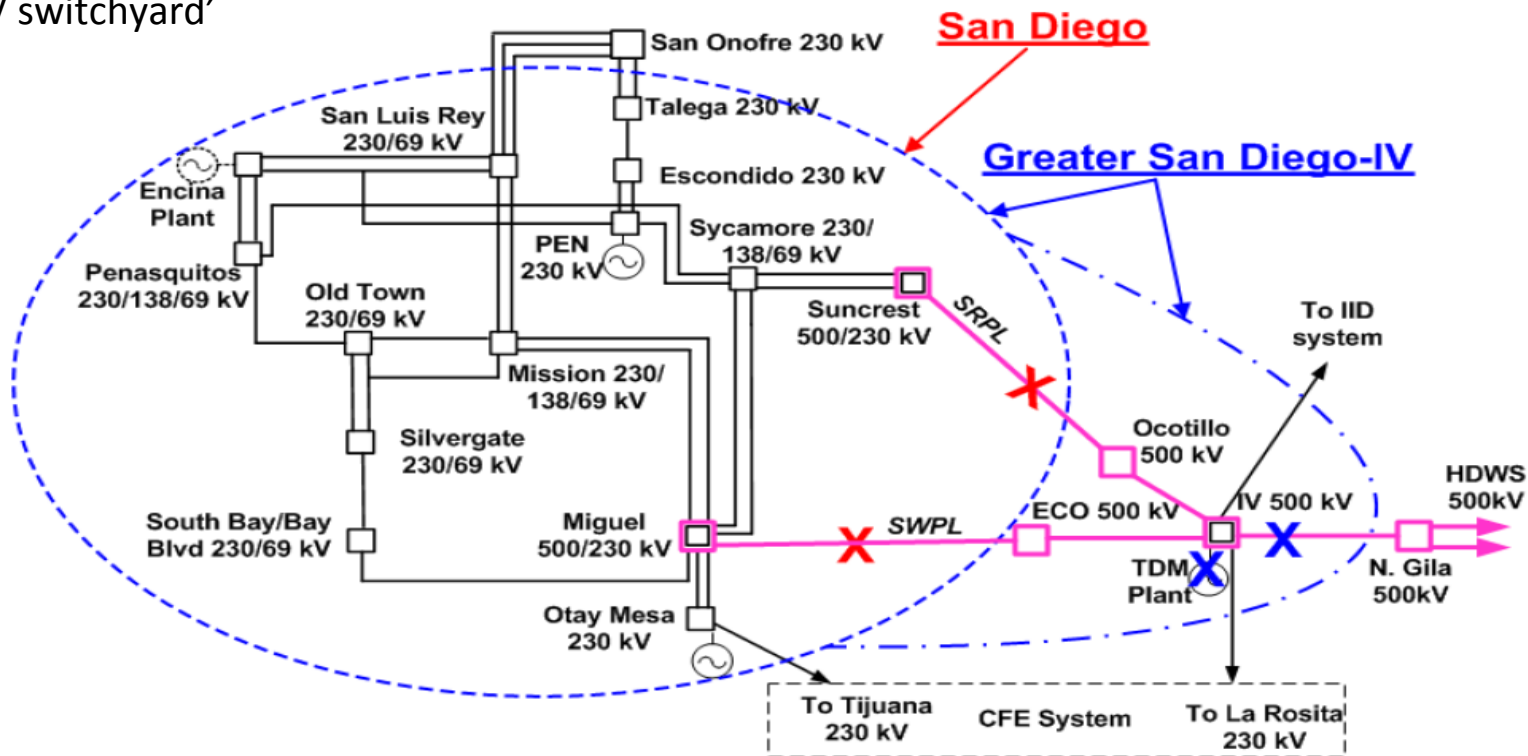


Diagram source: <http://www.caiso.com/informed/Pages/StakeholderProcesses/LocalCapacityRequirementsProcess.aspx>
 See “Presentation – Final 2015 and 2019 Local Capacity Requirement San Diego Local Area”, pg 14

RFO Conformance Requirements – Resource Adequacy (RA)

- IOUs must meet CPUC RA requirements on a monthly basis.
 - RA resources used to meet these requirements have a ‘must offer obligation’ in the CAISO energy markets
- The resources that SDG&E is seeking through this All Source RFO are intended to count toward SDG&E’s RA obligations or are required to provide RA value

Generation or energy storage resources

- must go through the CAISO deliverability study process and receive a non-energy only deliverability status

Use limited resources (such as DR programs or energy storage)

- must be capable of operating / being dispatched for 4 hours on 3 consecutive days

EE and load-modifying DR

- provide RA value by lowering the RA requirement (by reducing load)

- More information is available from the CAISO and the CPUC websites

For example, please see the CAISO Tariff, Section 40 -

http://www.caiso.com/Documents/Section40_ResourceAdequacyDemonstrationForAllSCsinTheCAISOBAA_May1_2014.pdf and the annual CPUC decisions governing the RA program: 2011 RA Requirements: D10-06-036, 2012: D11-06-022, 2013: D12-06-025, 2014: D13-06-024, 2015: D14-06-050

RFO Conformance Requirements – “...demonstrably incremental...”

The Track 4 decision, OP 6 , requires that SDG&E observe the requirements listed in OP 4 of D.13-02-015 – the Track 1 decision

- OP 4, b. “The resource must be demonstrably incremental to the assumptions used in the CAISO studies, to ensure that a given resource is not double counted.”
- CAISO studies for track 4 were ordered via a revised scoping ruling issued 5/21/2013, available here: <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M065/K202/65202525.PDF>
 - Attachment A to the revised scoping ruling includes the Track 4 study assumptions
 - The CAISO study is more fully explained and the results are presented in the testimony of Mr. Robert Sparks, available at: http://www.caiso.com/Documents/Aug5_2013_Track_4_Testimony_RobertSparks_R12-03-014.pdf

See tables on following slides for additional resources

RFO Conformance Requirements –

“...demonstrably incremental...”

<i>Resource</i>	<i>Is your Program or Resource Incremental? Check these resources...</i>
Demand Response (DR)	<p>1) SDG&E's current DR Programs (http://www.sdge.com/business/demand-response-overview)</p> <p>2) SDG&E's proposed 2015-16 DR programs (http://www.sdge.com/regulatory-filing/10486/oir-enhance-role-dr-meeting-state-resource-planning-ops-reqmt); approved via D.14-05-025</p> <p>3) 2013 IEPR DR Forecast: (http://www.energy.ca.gov/2013_energypolicy/documents/demand-forecast_CMF/mid_case/ ; click on SDGE Mid.xls</p>
Energy Efficiency (EE)	<p>1) SDG&E's current EE programs (see http://www.sdge.com/save-money/upgrade-and-save -- gives information on SDG&E's EE rebate programs; CPUC Decision approving SDG&E's current programs: http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M034/K299/34299795.PDF ; and reporting on SDG&E's current EE programs at http://eestats.cpuc.ca.gov/Views/Documents.aspx</p> <p>2) SDG&E's proposal for 2015 EE programs (http://www.sdge.com/regulatory-filing/10501/2015-energy-efficiency-program-portfolio-changes-phase1-rulemaking-13-11-005)</p> <p>3) See "Energy Efficiency Adjustments for a Managed Forecast: Estimates of Incremental Uncommitted Energy Savings Relative to the California Energy Demand Forecast 2012-2022" of September 14, 2012 at http://www.energy.ca.gov/2012_energypolicy/documents/demand-forecast/IUEE-CED2011_results_summary.xls ; See the 'mid savings elec' tab -- as discussed and directed in the revised scoping memo - Att A, p. 4, footnote 10</p>

RFO Conformance Requirements – “...demonstrably incremental...”

<i>Resource</i>	<i>Is your Program or Resource Incremental? Check these resources...</i>
Renewables	See Chart 2 (p. 12) from the Revised Scoping Memo and 'the commercial interest RPS portfolio' - see: http://www.cpuc.ca.gov/PUC/energy/Procurement/LTPP/2012+LTPP+Tools+and+Spreadsheets.htm scroll down to '2012-2013 Transmission Planning Process Portfolios - May Revise (XLSX)'
Comb Heat & Pwr (CHP)	Revised Scoping Memo states that no incremental CHP was assumed; therefore any CHP offered that is currently not already in operation would be incremental
Distributed Generation (DG)	Revised Scoping Memo mentions roof-top PV, but no other DG; therefore any other DG offered, that is not currently in operation, would be incremental
Energy Storage	Revised Scoping Memo is silent on energy storage; therefore any energy storage offered, that is not currently in operation, would be incremental
Conventional	Revised Scoping Memo mentions Wellhead Escondido (45 MW), but no other conventional resources; therefore any other new conventional plants offered - that are not currently in operation - would be incremental

RFO Conformance Requirements – limit on Number of Offers

SDG&E is seeking a reasonable limit on the number offers

- For ESSEPC, DR and EE respondents, six offers is the limit
- For other respondents, limit is six mutually inclusive offers (i.e.: 6 packages or 6 option combinations)
- Multiple combinations of project attributes/locations are allowed
- Each ‘package’ of projects (or ‘option combinations’) would constitute a mutually inclusive offer

Examples:

- 25 location ESSBOT offer, phased installations over a period of 4 years with 6 pricing combinations depending on on-line date – Acceptable
- 25 location ESSBOT offer, phased installations over a period of 4 years with 10 pricing combinations depending on on-line date – NOT Acceptable (SDG&E would ask the respondent to identify which 6 of the 10 pricing combinations to evaluate)
- 10 location ESSEPC offer, phased installations over 4 years with 2 pricing combinations – Acceptable

Product Type Resource Criterial and Eligibility Requirements (EE and DR)

Participation and Resource Criteria	Resource Type	
	EE	DR
Resource Specific Requirements	Customers enrolled must be within SDG&E's service territory; E3 calculator - Total Resource Cost (TRC) of 0.9 or greater;	Customers enrolled must be within SDG&E's service territory; E3 calculator - Total Resource Cost (TRC) of 0.9 or greater; Supply side resoruces preferred, but load modifying will also be considered
Program size limits	500 kW - 775 MW	500 kW - 775 MW
<u>Preferred</u> Contract Term (Years)	6 years or less	None stated

Product Type Resource Criterial and Eligibility Requirements

Participation and Resource Criteria	Resource Type				
	Renewable	CHP	Energy Storage	Conventional	DG
Resource Specific Requirements	RPS Product Category: Category 1 (bundled products as defined in Public Utilities Code 399.16(b)(1)(A-B))	Definition of cogeneration under California Public Utilities Code (“PUC”) §216.6 and the Emissions Performance Standard established by PUC §8341 (Senate Bill 1368). qualifying cogeneration facility under the Code of Federal Regulations (“CFR”) 18 CFR §292.205 implementing PURPA	As defined by the PUBLIC UTILITIES CODE SECTION 2835	All conventional resources will be considered that meet the other conformance requirements	Interconnect at distribution voltage; GHG emissions must be less than or equal to the CARB default emission factor of .428 metric tons of CO2e per MWh
Type of facility/resource	New, Repowered and Expanded	New, Repowered and Expanded	New, Repowered and Expanded	New, Repowered and Expanded	New, Repowered and Expanded
Project Size/Resource	3 MW -775 MW	5 MW -775 MW	ESSPPTA or ESSBOT: 500 kW –800 MW ESSEPC: 10 MW –787.5 MW	5 MW -600 MW	500 kW –10 MW
<u>Preferred</u> Contract Term (Years)	12 years or less	Up to 7 for Repowered and up to 12 for New and Expanded	3 to 20 years	20 years or less	20 years or less
Interconnection Requirements	Full Deliverability	Full Deliverability	Full Deliverability	Full Deliverability	Full Deliverability
CAISO Deliverability Study	Interconnection/WDAT/Rule 21 or CAISO Phase II Study	Interconnection/WDAT or CAISO Phase I and II Study	N/A	Interconnection/WDAT/Rule 21 or CAISO Phase I Study	Interconnection/WDAT or CAISO Phase I and II Study
Site Control	Direct ownership; a lease or an option to lease or purchase upon PPA approval	Direct ownership; a lease or an option to lease or purchase upon PPA approval	Direct ownership; a lease or an option to lease or purchase upon PPA approval	Direct ownership; a lease or an option to lease or purchase upon PPA approval	Direct ownership; a lease or an option to lease or purchase upon PPA approval

General Q&A (1/3)

- Has SDG&E identified preferred areas?
 - No, SDG&E has not identified preferred areas. Please note that projects interconnecting at the distribution system must be eligible for RA
- Does the project need a physical location before being bid?
 - For ESSEPC bids, SDG&E will identify the locations and bidders will specify which site(s) they intend to bid upon. SDG&E intends to provide additional detail on these locations by the end of October. EE and DR bidders may identify an area within which program participants must be located instead of a specific location. All other projects must identify a particular location that is within SDG&E's service territory
- Can a single offer encompass more than one technology (i.e.: renewable with storage)?
 - Yes. SDG&E is not attempting to limit the possible combinations of technologies. SDG&E will consider combinations of technologies included in a single offer

General Q&A (2/3)

- How much will SDG&E be procuring from this 2014 All Source RFO? Is there a minimum or maximum?
 - SDG&E is soliciting a maximum total capacity of up to 800 MW
 - SDG&E is soliciting a minimum total capacity of:
 - 25 MW of energy storage, regardless of the outcome for the Carlsbad Energy Center
 - If the Carlsbad Energy Center is not approved: 500 MW of all resource types, a minimum of 200 MW of which must come from preferred resources, or
 - If the Carlsbad Energy Center is approved: a minimum of 200 MW of preferred resources
- If the Carlsbad Energy Center is approved, bidders will be notified that 600 MW of SDG&E's need has been filled and SDG&E will be authorized to procure a minimum of 200 MW of preferred resources, including at least 25 MW of energy storage. SDG&E encourages respondents to take this possibility into account and submit Offers with both levels of need in mind (maximum of 800 MW if this application is not approved or 200 MW if approved)
- The actual amounts procured by SDG&E will depend on the outcome of the Least Cost, Best Fit (LCBF) / Net Market Value (NMV) and qualitative analysis. SDG&E will only pursue contracts that represent significant value to ratepayers (this is determined by looking at project benefits relative to project costs)

General Q&A (3/3)

- Is there a bid (or other type of) deposit required?
 - Yes, a ‘shortlist acceptance fee’ will be required from bidders who wish to be accepted on to the shortlist and begin negotiations. No fee is required simply to bid. The shortlist acceptance fee for all resource types is the greater of \$100,000 or \$2 per kW of nameplate (or overall system or program capacity)
- Is there a limit to the number of offers or bids a respondent can provide?
 - Yes. Each Respondent is limited to six bids. Bids may include multiple locations, hybrid technologies, or phased development as long as the package is priced as a single bid. Variations in critical project details, like commercial operation date, contract term, energy deliveries, capacity, interconnection point, or operational constraints, must be submitted as separate bids. For example, a project consisting of multiple 5 MW storage systems sited across San Diego to be installed in phases over the course of 2 years for one all-inclusive price would be considered one bid. However, a project consisting of one solar facility located at a specific substation with six different possible commercial operation dates would be considered 6 different bids
- Are existing resources eligible for this solicitation?
 - Yes, but only if they are incremental to the CAISO studies relied upon in the long term procurement plan proceeding that led to the 500 MW – 800 MW LCR authorization are eligible. Please refer to the RFO document for each product type for additional details regarding the “incremental” requirement

Combined Heat and Power Q&A

- Are CHP fuel cells considered eligible technology?
 - By definition CHP or cogeneration means the sequential use of energy for the production of electrical and useful thermal energy. If a fuel cell meets this definition it will be considered as eligible CHP technology. Additionally, each CHP facility should meet the efficiency performance requirements

Demand Response/Energy Efficiency Q&A

- If there are questions about how to fill out the E3, whom do we ask?
 - Questions about the E3 for this RFO must be submitted via email to AllSourceRFO@semprautilities.com. There will also be additional E3 training session at the upcoming Pre-Bid Conference/Outreach Events in November
- Do you need to have a physical location where customers will be marketed and identified after contract signing and thus will not be known beforehand?
 - SDG&E does not require a physical location where customers will be marketed, but the bidder should describe in their offer the Target Market, how the resource is incremental, as further described in Attachment A Project Description Form in the RFO documents
- When does the collateral have to be posted?
 - The timing of collateral required under the contract is currently under review and a response will be posted shortly. Also note that shortlisted projects will owe a Shortlist Acceptance Fee, which is the greater of \$100,000 or \$2 per kW of project nameplate/aggregate program capacity and shall be required to be paid to SDG&E within ten (10) business days of notification by SDG&E that the offer has been shortlisted

Demand Response Q&A

- Are there any meters in SDG&E's territory that cannot have a KYZ pulse equipment included?
 - Yes, there are meters in SDG&E's territory that cannot have a KYZ pulse equipment, for example the electro-mechanical meter types
- Does each site in an aggregator's bid need to meet the deliverability requirement (4 consecutive hours for 3 consecutive days), or can the aggregator's bid meet the delivery requirement as an aggregated unit?
 - Each individual site does not need to meet the deliverability requirement (4 consecutive hours for 3 consecutive days), but together, as an aggregated unit, the facilities must meet this requirement. See D. 14-06-050 Appendix B, 11.2 and 13.4. Aggregated resources will be granted a composite qualifying capacity and effective flexible capacity, based on both the duration over which the individual facilities can operate and the magnitude of their output

Energy Efficiency Q&A

- Are payments based on net or gross?
 - Payments will be based on verified Gross Savings
- How will savings be “counted”? M&V, Deemed?
 - Determination of Savings will be defined in the approved M&V Plan. Seller must submit an M&V Plan with their bid. The final M&V plan will be negotiated between Seller and Buyer and included in the final Agreement
- Can one customize when the savings are available?
 - Seller should propose when energy savings and load drop will be delivered. SDG&E will consider all contract terms, but it prefers a contract term of 6 years or less. SDG&E also prefers EE programs that start delivering capacity as early as 2017 (subject to CPUC approval), but some portion of the Delivery Period must encompass calendar year 2022
- Is there a value to kWh saved in addition to kW saved?
 - Yes, kWh is valued as an energy benefit for DR and EE but it is minor compared to the capacity value in the evaluation process. Also, kWh is valued as an input in the E3 Calculator to meet the required 0.9 TRC

Energy Storage Q&A

- Can you explain SDG&E's Counting rules for energy limited resources (like energy storage) that requires four hours of discharge for three consecutive days? Does this mean that a storage facility needs to be able to have 12 hours of dispatch over three days with no charging?
 - SDG&E's understanding of the RA counting rules for use limited resources is as follows: the resource must be available for four (4) hours on three (3) consecutive days. This means that the storage facility must be able to discharge for four (4) consecutive hours on three (3) consecutive days. There can be charging in between the discharges on each of those days
- Will ES output prior to 2017 be modeled or just included as cash flows?
 - SDG&E will model deliveries as described in the offer documents. As a practical matter, SDG&E believes it would be very difficult to get the application associated with the All Source RFO contracts approved by the CPUC in time to support deliveries beginning in 2016
- Does ES need to obtain a CAISO deliverability study prior to bidding?
 - No, but SDG&E does require that the developer pursue and obtain such a deliverability study to ensure that the resource counts for RA
- How will SDG&E value energy to charge ES?
 - SDG&E will value energy to charge ES based on the best forecast of such costs available at the time that it evaluates bids

Renewables Q&A

- What will the energy forecast be based on (for deemed deliverable)?
 - The energy forecast for economic dispatch down periods is based on the Deemed Delivery Forecast. This forecast of the energy that would have been produced by the project is the last such forecast prepared by the CAISO that does not reflect curtailed production as a result of economic dispatch down periods. Refer to Section 3.4(c)–Economic Dispatch Down and related defined terms in Article 1-General *Definitions* of the Renewables PPA Proforma document for further explanation
- Is it possible to aggregate several projects in the same location/area to achieve the minimum projects size requirement of 3MW?
 - The aggregated projects need to be contiguous and will require a single interconnection point in order to meet the minimum project size requirement
- How do you get a forward curve that results in a TOD of 1?
 - The contract TODs of 1 are not related to a forward price curve, they denote flat pricing, meaning that SDG&E will pay the developer the same rate during every hour
- Will this All-Source RFO be replacing SDG&E’s annual end of year (beginning of 2015) RPS solicitation or running concurrently?
 - SDG&E has the option to hold an RPS RFO as a part of its annual RPS Plan filing, but is not required to. The All-Source RFO is separate from any RPS RFO that may occur via the annual RPS Plan process

Overview of Bidding Protocol

Maria Boldyreva
Origination Advisor

Scot Rolfe
Principal Business Analyst

RFO Documentation Requirements

Required Documents	Resource/ RFO Type						
	EE	DR	Renewable	CHP	Energy Storage	Conventional	DG
Offer Form	X	X	X	X	X	X	X
Project Description Form	X	X	X	X	X	X	X
Electric Interconnection Information	N/A	N/A	X	X	X	X	X
Credit Application	X	X	X	X	X	X	X
Supplier Diversity Information	X	X	X	X	X	X	X
Redline forms of the Applicable Contract	TBD	TBD	X	X	X	X	To be provided by SDG&E after completion of the evaluation
Other	1. E3 Calculator; 2. Workpaper(s) associated with MW reductions per EE unit; 3. Measurement and Verification Plan.	E3 Calculator	N/A	CEC-2843 Application Form	N/A	N/A	N/A

Offer Form Overview

- Excel-based offer(bid) forms
- Spreadsheets are protected(locked) so only data entry fields should be editable
- DO NOT try to add rows, columns, sheets, or in any way change the layout of your offer form
- If you find any errors, or have any problems using the offer forms, please contact us at allsourceRFO@semprautilities.com immediately

Instruction Sheet and Form Color Key

Distributed Generation Products Offer Form

2014 All Source LCR RFO

San Diego Gas and Electric Company ("SDG&E") is issuing this 2014 All Source LCR RFO to meet the Local Capacity Requirement outlined in the LTPP Track 4 decision. As part of this requirement, this RFO solicits offers for Distributed Generation within the Local Capacity Area for SDG&E.

Form Field Key:

- Free Form Field
- Pull Down Menu
- Calculated Field
- Comment Field

Instructions:

- Follow instructions as they appear in each fields' comments or pop-up messages
- Complete all fields in the "Contact Information" and "Project Information" worksheets
- Fill out all fields in the units requested
- Do not add, change, or move any cells, rows, columns or worksheets in the workbook

Offer Forms

- Fill out EVERY applicable field. Failure to do so could result in non-conformance
- Abundant free-form fields to describe any aspects of your project/program that don't fit exactly within our entry fields, please use them

The image shows a spreadsheet interface with a grid of cells. On the left side, row numbers 65 through 89 are listed. Row 67 is highlighted in orange and contains the text 'Additional pricing details'. A large, empty green rectangular area covers the cells from row 68 to row 87, indicating a free-form field for additional information. A yellow callout box at the bottom right of the grid contains the text: 'Please include any other pricing or capacity details that cannot be described in the other entry fields'.

Offer Forms

Operational Constraints					
Dispatchable Range Constraints		Minimum	Maximum	Average	
Total Capacity (MWh)					
Total Useable Capacity (MWh)					
Minimum Storage Level sMIN (MWh)					
Maximum Storage Level sMAX (MWh)					
Discharge Rate(MW/hr)					
Discharge Time from sMAX to sMIN (hours)					
Max Charge Rate(MW/hr)					
Charge Time from sMIN to sMAX (hours)	#DIV/0!				
Annual Capacity Degredation (% if applicable)					
System Efficiency Range (%)					
Annual Efficiency Degredation (% if applicable)					
Notification Time (minutes)					
Minimum run time per charge (minutes)					
Minimum run time per discharge (minutes)					
Minimum down time between charge/discharge crossover (minutes)					
Blackstart Availability					

Enter the total capacity (amount of stored energy) of the proposed project in MWh.

1. Instructions 2. Contact Information 3. Project Description 4. Operational Constraints 5. ESSPPTA Cap-Price 5. ES

Bid Details - ESSPPTA, TOLLING AGREEMENTS ONLY					
Bid Number					
Bid Structure Description					
Contract Start Date					
Contract End Date					
Contract Term (years)	0.0				
Variable O&M (\$/MWh)				VOM annual escalation	

Year of Term	Year	Average Annual Contract Capacity (MW)	Capacity Payment (\$/kW-yr)	Variable O&M (\$/MWh)
1				
2				
3				
4				
5				
6				
7				
8				
9				
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34				
35				
36				

1. Instructions 2. Contact Information 3. Project Description 4. Operational Constraints 5. ESSPPTA Cap-Price 5. ES



Bid Submission Process

Amanda White
Senior Origination Analyst

Registration and Logging On

Ways to Register:

1. Receive an invitational email from SDG&E followed by a link to access PowerAdvocate®
2. Register as a first-time user on www.PowerAdvocate.com
 - Request for access using the Referral Information

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: *

* Required Field

3. Request for access using the PowerAdvocate® link provided in the RFO documents

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:

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 RFP Event and Submitting Documents

How to Access the RFP Event from Dashboard:

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

- RFO Document
- Project Description
- Pricing/Offer Form
- Credit Application
- PPA Document
- Other forms

2. To upload documents, click  or select 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

- Project Description Form (.doc or .docx)
- Pricing Form (.xls or .xlsx)
- Interconnection Documents (.pdf)
- Site Control Documentation (.pdf)

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



Event Dashboard

Event	Msg	Open	Close	Download Documents	Upload Documents	Fill-In Data Sheets		
						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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Top Eight Mistakes

8. Inconsistent contract terms between worksheets

- Prices and deliveries should start at the same date as the contract start date. Deliveries and prices should stop in the final contract year. Pricing forms for contracts of 15 year terms that only have 10 years of pricing and deliveries, or any other mismatch that is not explained in the pricing form, may be declared non-conforming and rejected

7. No specific project location

- At the very least, a bid must have a fixed physical location. Entering vague information such as “Anywhere in Southern California” or “Any location in conformance with CEC regulatory guidelines and California Public Utilities Code” will result in the bid being declared non-conforming and rejected. Does not apply to ESSEPC.

6. Using incorrect units

- Offer form entries that are inconsistent with the units shown at the top of the pricing form column may require corrections. For example: \$/MWh vs. cents/kWh

Top Eight Mistakes

5. Bidding DC capacity and energy instead of AC capacity and energy

- Important for solar PV developers. Utilities do not sell DC electricity to retail customers. Bidding DC megawatts and megawatt-hours will cause inaccurate contract evaluations, and such bids may be declared non-conforming and rejected

4. Adding or renaming worksheets

- If the bid has multiple options for pricing/COD/deliveries/etc., fill out separate pricing forms for each option. Adding worksheets, or renaming worksheets, create problems with interpretation and processing, and the bid may be declared non-conforming and rejected

3. Wrong project technology

- Make sure that the Project Information form describes the technology as “Solar PV” if it is solar photovoltaics, “Wind “ if the project is wind, etc. For projects that are a combination of technologies, enter “Hybrid”

2. Pricing form data inconsistent with project description form

- The Project Description Form and the Pricing Forms should describe the same project and pricing options. If options are submitted that are inconsistent with the Project Description Form, the options may be declared non-conforming and rejected. If none of the submitted pricing forms match the Project Description Form, the entire bid may be rejected

Top Eight Mistakes

1. Making the utility fill out your bid form

- Bidders must be evaluated fairly, and the utility must demonstrate that bidders have been treated equally in an RFO. Creating ambiguities in a pricing form that forces the utility to “fill out” critical sections, either as additions or corrections, is not only a time-consuming process that can lead to inaccuracies, but can also be construed as special treatment of bidders, creating conflict of interest and jeopardizing the integrity of the RFO process
- If you have made mistakes in your pricing forms, you can notify us by email (allsourcerfo@semprautilities.com), but you must make the corrections yourselves and submit them separately, with a notice to us that the revised form replaces the form previously submitted. Please include the name of the form to be replaced and the date of the original submission. All corrections must be submitted before the bid closing deadline. Failure to submit corrected bid forms may result in a bid being declared non-conforming and rejected

***Please submit your questions by
November 14, 2014
to
AllSourceRFO@SempraUtilities.com***

Break

RFO Evaluation Overview

Scot Rolfe
Principal Business Analyst

RFO Evaluation Topics

- Valuation and Selection Process
 - Least-Cost/Best-Fit (LCBF)
- Quantitative Evaluation
 - Net Market Value (NMV)
 - Each conforming offer is valued using this discounted cash flow analysis
- Qualitative Evaluation
 - Used to differentiate similarly valued offers
- Shortlisted Offers

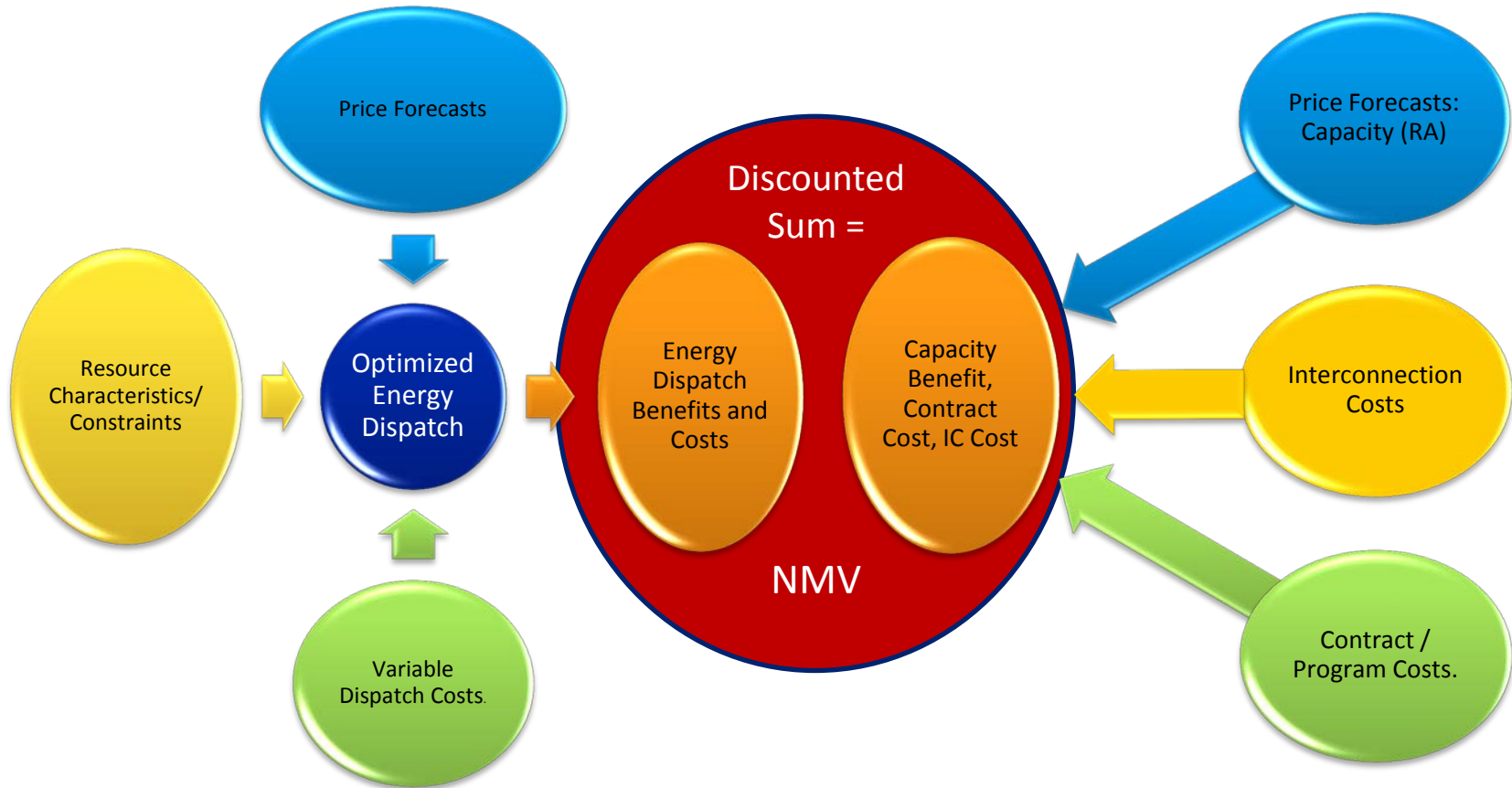
Quantitative Valuation Process: NMV



NMV: Typical Benefits and Costs

Typical Benefits		Typical Costs
Energy		Contract Payments
Ancillary Services (A/S)		Variable Energy Costs (Fuel, VOM, GHG Compliance)
Capacity (RA)		Transmission Interconnection
Renewable Energy Credits (REC's)		

High-Level Overview, Quantitative Valuation Process



NMV: Optimized Dispatch

- Must-Take Resources (Non-Dispatchable)
 - Expected generation profile valued against energy forward price curves
- Dispatchable Resources
 - Conventional and Storage Resources modeled with dispatch optimization models valuing resource operating characteristics against energy forward price curves

NMV: Market Price Forecasting

- Energy Price
 - Market Based Forecast, SP15
- A/S Prices
 - Spin, Non-spin, regulation
- Natural Gas Prices
 - Market Based Forecast, SoCal Delivered
- GHG Allowances
 - Market Based Forecast

Qualitative Evaluation

Criteria may be considered in the Qualitative Evaluation:

- Project development status:
 - Electrical interconnection status
 - Permitting status
 - Fuel and water interconnections
 - Site control
- Developer attributes
 - Project financing
 - Development experience
 - Project viability
- Diverse Business Enterprise (“DBE”) status
- Loading Order Ranking
- Other attributes
 - Contribution to other procurement targets (CHP, RPS, Energy Storage)
 - Non-quantifiable flexibility and curtailment options
 - Portfolio fit (Capacity, energy, term, etc.)
 - Technology risk

Evaluation Q&A

- Are submittals limited to SDG&E forms only?
 - Yes, SDG&E will not be able to pull data via our automated process from other forms. If a bidder would like to provide additional information, this can be added to the available open fields. If that is insufficient please email the RFO inbox
- How will SDG&E balance the loading order with the LCBF / NMV results?
 - SDG&E will rank conforming offers based on the outcome of the LCBF / NMV modeling. SDG&E may use these factors to determine advancement onto the short list or evaluate tie-breakers, if any
- Please explain the energy benefit calculation
 - The energy benefit is equal to the market value of the expected generation profile for the resource/program. For example, a profile of 100 MWh and a corresponding market price of \$50/MWh would provide an energy benefit of \$5,000
- Does the valuation start at 2017, or at COD? Will a project with COD in 2017 be evaluated differently than one with COD in 2019?
 - The valuation will start at COD, and the results of the valuation depend on the project attributes and forward price curves applicable over the term of the proposed contract

Contractual Requirements - PPA Terms and Credit Requirements

Remi Raphael

Quantitative Risk & Controls
Manager

Judy Delgadillo

Major Markets Credit & Collection

Ted Roberts

Origination Manager

Initial Collateral Requirement

Initial Collateral Requirement is the amount of SDG&E's exposure, at the time of the execution of the transaction, to the Seller's default or non-performance

- Held constant throughout the term of the contracts

Ongoing Collateral requirement is based on Mark to Market basis (may vary by product type)

- May change subject to changes in market data

Initial and on-going Collateral requirements can be satisfied by the combination of:

- Unsecured Credit: granted by SDG&E to the Seller based on credit worthiness (credit application)
- Secured Credit: Cash posted by the Seller or letter of credit posted by the Seller

Ongoing Collateral requirement

A positive Current Mark-to-Market Value implies Buyer has the potential for realization of market gains and thus has exposure to Seller's default or non-performance

Throughout the term of the contract, the Current Mark-to-Market (MtM) value is calculated based on market data (forward prices, volatilities, correlations, penalties, replacement cost, etc.) and by taking the sum of the positive exposure for each remaining full month in the Term of the Transaction

The requirement to post additional collateral to satisfy ongoing collateral requirement will follow a standard margining model, set up for one-way margining (Buyer margining the Seller)

Calculation of mark to market may vary by product type (EE, DR, Renewables, CHP, DG, Conventional, Energy Storage)

Credit Requirements Q&A

- Should credit be included in the bid price?
 - In order to fairly evaluate bids and compare them against each other, we ask bidders not to include credit costs within their bid price. However, the seller is required to fill out a credit form which provides the added cost of collateral per \$100,000 increment to satisfy the initial collateral requirement if SDG&E decides not to extend unsecured credit. We are therefore asking for pricing without the credit cost and then with the cost of collateral per \$100,000 increment
- Should bidders provide a price that assumes SDG&E will extend credit?
 - Offers are firstly valued and ranked based on the assumption that unsecured credit will be granted for the full collateral requirement amount. If SDG&E decides not to extend unsecured credit to the bidder, it will use the cost of collateral provided in the credit form to estimate the incremental cost of credit to the original offer and then re-rank bids with this incremental cost in mind
- Will the credit requirement be higher the lower the price?
 - Intuitively, the lower the price offered, the higher SDG&E's exposure is to a counterparty default. However, offers will be firstly valued and ranked based on the assumption that unsecured credit will be granted for the full collateral requirement amount
- Will the credit requirement be different for different products at the same price?
 - The credit collateral requirement depends on the risk profile and the product type. Some products provide only capacity while others have additional benefits and therefore the credit collateral exposure would be higher

Overview of Credit Application

General Information

Legal Company Name _____

Doing Business As (DBA) _____

Credit Support Provider (Legal company name of Guarantor) _____

Street Address _____

City _____

State _____

Zip Code _____

Federal Tax ID # _____

Organized & existing under the laws of: (State) _____

Year Incorporated/Established _____

Primary Contacts:

Credit Issues Contact:

Name _____ Title _____ Phone _____ FAX _____ E-Mail _____

Business Issues Contact:

Name _____ Title _____ Phone _____ FAX _____ E-Mail _____

Please provide the following information with this application:

- **Most recent three (3) fiscal years', CPA-audited, financial statements including notes to the financial statements.**
- **When using a credit support provider, include most recent three (3) fiscal years', CPA-audited, financial statements of the credit support provider.**
- **No need to attach financial statements when they are available on the web, provide address: _____**

Overview of Credit Form

	A	B	C	D	E	F	G	
1						Page 1		
2								
3		Credit-RFO Offer Form						
4		2014 All Source LCR RFO						
5								
6								
7		General Information						
8								
9		Primary Contact Information:						
10		Legal Company Name:						
11		Street Address:						
12		City:						
13		State:						
14		Zip Code:						
15		Doing Business As (DBA):						
16		Credit Support Provider:						
17		Cost of Credit per \$100,000 of requested security :						
18		Federal Tax ID #:						
19		Organized & existing under the laws of:						
20		Year Incorporated/Established:						
21								
22		Primary Contacts:						
23		Credit Issues Contact:						
24		Name:						
25		Title:						
26		Phone Number:						
27		FAX:						
28		E-Mail:						
29								
30		Business Issues Contact:						
31		Name:						
32		Title:						
33		Phone Number:						
34		FAX:						
35		E-Mail:						
36								
37								
38								

DO NOT INCLUDE CREDIT COSTS IN YOUR BID PRICE ON THE PRIMARY OFFER FORM, ENTER THE CREDIT COSTS HERE.

This amount will be integrated into the projects' quantitative valuation, to determine its credit-adjusted Net Market Value.

PPA Overview

Subject and Contract Section Number(s)	Description
Renewables pro forma PPA	
Economic Dispatch Down: Definitions, (As Available, Deemed Bundled Green Energy, Deemed Delivery Forecast, Dispatch Down Period, Economic Dispatch Down, Force Majeure, System Dispatch Down, Unit Firm), 3.1(e), 3.1(h)(ii), 3.2(a), 3.2(b), 3.3(b)(i), 3.3(b)(iii), 3.3(e), 3.4, 4.1.	SDG&E's or CAISO's ability to decrease project output in response to negative energy prices. This includes the project having the ability to be controlled by CAISO and respond to the CAISO's 5-minute energy prices.
Time of Day pricing for electric generation: 4.2.	TOD factors have been set to 1.0 for all periods
Limits on energy production above the contract capacity: 4.2.	Eliminates gaming energy payments by overbuilding of generating capacity (renewables).
Payment Netting: 6.3.	PPA allows for netting of contracts across settlements if SDG&E has more than one agreement with the same counterparty.
CPUC Approval Security: 8.4(a)	Buyer must post performance security upon execution of the agreement.
CPUC-mandates Standard Terms and Conditions	For RPS Agreements ONLY; the non-modifiable terms are highlighted in magenta in the pro forma agreement, and the modifiable terms are highlighted in green.

PPA Overview (Continued)

Subject and Contract Section Number(s)	Description
Combined Heat and Power pro forma and CHP Utility Prescheduled Facility (UPF) pro forma	These agreements are part of the global CHP settlement and are modifiable by agreement of the Parties
Energy Storage (Third Party Owned) Tolling Agreement	
Condition Precedent: Section 2.4.	Be sure to add any condition(s) precedent that is essential to the successful completion of your project.
Insurance: Article 4	Be sure you have or can acquire all of the listed coverages.
Costs and Payments: Article 9	Be sure to complete the relevant appendices for each category of cost or charge.
Security Interests: Sections 11.4 and 11.5	Take note of SDG&E required security interests in performance assurance and project assets
Operating Restrictions: Section 18.4 and Appendix 1.1	Be sure to provide all required information
Conventional	
See notes under Renewable PPA and Energy Storage Tolling Agreement	

Utility Owned Storage

Frank Thomas

Manager - Elect Project Dev Business Planning

Utility Owned Energy Storage - Bid/Contract Requirements

- Non-Disclosure Agreement
 - Two-way for ESSEPC, ESSBOT per terms of RFP
- Technical Specifications
 - Required for all ESS utility ownership bids, possibly more stringent than ESSPPTA
- Commercial Viability
 - Must be commercially proven technology
- Credit
- ESSEPC Deposit Fee
 - None will be required
- Warranty and Capacity Guarantees per RFO
- Bidder to provide O&M pricing as part of bid, SDG&E to validate
- O&M Contract
 - Desired but not mandatory
 - Desired for duration of warranty and/or capacity guarantees or longer

Utility Owned Energy Storage - Pre-Bid Schedule - Completed Tasks

	ESSEPC	ESSBOT
Last Day for Bidder to submit expression of interest	October 1, 2014	October 17, 2014
Commercial viability metrics sent out	October 10	October 20
Executed non-disclosure agreement received	October 17	N/A
Technical info/commercial viability support submitted	October 20	

Utility Owned Energy Storage - Pre-Bid Schedule - Remaining tasks

	ESSEPC	ESSBOT
Respondents to submit technical /commercial viability info	n/a	October 31
SDG&E sends out tech specs and Respondents notified of commercial viability pass/fail	October 28	November 7
SDG&E sends out land information (w/expression of permitting difficulty)	October 31	n/a
Deadline to register in Power Advocate & access/download forms	November 4	November 11
Deadline to submit questions	November 11	November 11
Deadline for Respondents to identify sites & project size (MW)!	November 14	n/a
Respondent provides conceptual design info	December 1	n/a
Life of plant O&M cost estimates from Respondents NOT offering life of plant warranty	December 10*	December 10*
Bids due (Bidder inserts O&M costs for life of plant)	January 5, 2015!	January 5, 2015

* SDG&E validates O&M costs !SDG&E prepares & submits costs for environmental permitting & interconnection (hi side of step-up to grid)

Utility Owned Energy Storage - ESSBOT vs. ESSEPC

- ESSBOT same requirements as ESSEPC except:
 - ESSBOT is complete turnkey,
 - Asset ownership transfer after performance testing completed
- If contracted, both will require and be bound by:
 - Design Review and Factory Acceptance Tests
- If contracted, both may require:
 - Factory qualification survey for new manufacturing facilities

Utility Owned Energy Storage - Pre-Bid Bidder - SDG&E Interaction

- Communication
 - Utility owned questions by bidders and answers by SDG&E will be public to ESSBOT and ESSEPC bidders respectively
 - SDG&E questions to bidders
 - If to all, posted on Q&A website
 - If to bidder, then electronically with IE copied on all communication
 - Prior to bid submittal, no meetings or individual contact between SDG&E utility owned cost development team and bidder
- Responsibilities
 - ESSEPC: SDG&E lead on interconnection and permitting with pricing to be combined with ESSEPC bid. SDG&E responsible for cost and construction of interconnection from high side of step-up transformer

***Please submit your questions by
November 14, 2014
to
AllSourceRFO@SempraUtilities.com***

General Q&A Session

Appendix

Interconnection Overview

Distribution System Interconnection Processes

Distribution Interconnections

- SDG&E's distribution voltage is defined as facilities operating at 12.47 kV LL or below
All interconnection requests (IR) applications must be submitted to SDG&E's Customer Generation group
- IR - All Applicants (Rule 21 and WDAT)
 - Completed and valid Interconnection Request
 - Applicable interconnection request fees/deposits
 - Site exclusivity documentation
- Rule 21
 - Governed by CPUC
- Wholesale Distribution Open Access Tariff (WDAT)
 - Governed by FERC

SDG&E's Rule 21 – Interconnection Process

- Used for Net Metering Systems, Self Served Load and CPUC Wholesale export program projects
- Primary Components:
 - Pre-Application Report (option)
 - Fast Track Review Process
 - Simplified Interconnection
 - Initial/Supplemental Reviews
 - Detailed Study Process
 - Independent Study
 - Group Study

Rule 21 Highlights

- Single Rule 21/WDAT interconnection queue
- Pre-Application Report option - \$300 fee
- Fast Track review process for projects ≤ 1.5 MW
- \$800 non-refundable IR fee; \$2500 Supp. Review fee
- Detailed Study Process-Independent/Group Study
- Clearly defined Study Timelines
- Financial Security must be posted (Detailed Study)
- Proof of Site Control/Site Exclusivity required
- Formal Dispute Resolution Process
- SDG&E Ombudsman: initial point of contact for disputes

Rule 21 Review Process

- Pre-Application Report
 - High level feasibility review
 - Performed with readily available information; no studies
 - 10 BD completion from valid request
- Fast Track Process – Screening Process
 - Initial Review (13 screens) – 15 BD from receipt of valid IR
 - Pass Initial Review:
 - Upgrades Required - Cost Estimates; Draft Generator Interconnection Agreement (GIA)
 - No Upgrades Required – Draft GIA
 - Fail Initial Review: Request Supplemental Review/Withdraw IR
 - Supplemental Review (3 add'l screens) - 20 BD from receipt of add'l information
 - Pass Supplemental Review:
 - Upgrades Required - Cost Estimates; Draft Generator Interconnection Agreement (GIA)
 - No Upgrades Required – Draft GIA
 - Fail Supplemental Review: Request Detailed Study/Withdraw IR

Rule 21 Detailed Study Process

- Applicability
 - Failed Fast Track Process; \$10,000 study deposit
 - Projects: $>1.5 \text{ MWs} \leq 5 \text{ MWs}$; \$10,000 study deposit
 - $> 5 \text{ MWs}$; \$50,000 study deposit + \$1000/MW
- Electrical Independence Tests
 - Transmission System – Screen Q
 - Pass – Electrical Independence Test for Distribution System
 - Fail – Transmission Cluster Study (WDAT)
 - Distribution System – Screen R
 - Pass – Independent Study Process
 - Fail – Distribution Group Study Process

Rule 21 Detailed Study Process (Continued)

- Independent Study Process - Includes: 1) Interconnection System Impact Study (SIS) and 2) Interconnection Facilities Study (IFS)
 - Interconnection System Impact Study
 - Scoping Meeting Scheduled (5 BD after passing Screens Q & R)
 - Provide Detailed Study Agreement (DSA) to Applicant (15 BD)
 - Commence SIS from receipt of DSA from Applicant (30 BD)
 - Final SIS report (60 BD to completion)
 - Schedule Results Meeting if requested by applicant (10 BD from SIS report)
 - Tender Draft GIA (assumes **IFS waived**).
 - Post financial security as required
 - Interconnection System Facilities Study (if required)
 - ≤ 5 MW: Requires additional \$15,000 deposit; additional information
 - Commence IFS, issue final report (60 BD if upgrades/45 BD no upgrades)
 - Schedule Results Meeting if requested by applicant (5 BD from request)
 - Tender Draft GIA (30 CD from results meeting)
 - Post financial security as required

Rule 21 Detailed Study Process (Continued)

- Distribution Group Study Process - Includes: 1) Phase I Interconnection Study and Phase II Interconnection Study
 - Phase I Interconnection Study (Phase I)
 - Applicant must send notification to participate to SDG&E prior to close of study window; 2 study windows annually: **March** and **September**
 - Scoping Meeting Scheduled (5 BD - after Elec. Independence Test)
 - Provide Detailed Study Agreement (DSA) to Applicant (15 BD)
 - Conduct Phase I study and issue final study results report (60 BD from start of study)
 - Results meeting upon Applicant request (optional; 5 BD to schedule meeting)
 - Tender Draft GIA (30 CD after results meeting assumes **Phase II study waived**).
 - Post financial security as required
 - Phase II Interconnection Study (Phase II) (if required)
 - ≤ 5 MW: Requires additional \$15,000 deposit; additional information
 - Phase II study begins (60 CD after Phase I final study results report)
 - Final Phase II study results report completed (60 BD from start of Phase II study)
 - Results meeting upon Applicant request (optional; 5 BD to schedule meeting)
 - Tender Draft GIA (30 CD after results meeting)
 - Post financial security as required

SDG&E's WDAT– Interconnection Process

- Primary Components:
 - Pre-Application Report (option)
 - Fast Track Review Process
 - Simplified Interconnection
 - Initial/Supplemental Reviews
 - Detailed Study Process
 - Independent Study
 - Cluster Study

SDG&E's WDAT Highlights

- WDAT interconnection queue
- Pre-Application Report option - \$300 fee
- Fast Track review process for projects ≤ 2 MW
- Applicable processing fees/deposits
- Independent Study/Cluster Study Process
- Defined Study Timelines
- Financial Security must be posted (Ind/Cluster Study)
- Proof of Site Control/Site Exclusivity required

WDAT Review Process

- Pre-Application Report
 - High level feasibility review
 - Performed with readily available information; no studies
 - Timely completion from valid request
- Fast Track Process – Screening Process
 - Applicability
 - Projects \leq 2 MW
 - Nonrefundable \$500 processing fee and \$1000 study deposit
 - Initial Review (10 screens) – 15 BD from receipt of valid IR
 - Pass Initial Review: Tender Draft Generator Interconnection Agreement (GIA) – 15 BD
 - Fail Initial Review: Request Supplemental Review/Withdraw IR
 - Supplemental Review - 20 BD from receipt of add'l information
 - Pass Suppl. Review: Tender Draft Generator Interconnection Agreement (GIA) – 15 BD
 - Fail Supplemental Review: Request Independent/Cluster Study or Withdraw IR

WDAT Independent/Cluster Study Process

- Applicability
 - \$800 processing fee (Ind. Study)
 - Failed Fast Track and Ind. Study Projects $>2 \text{ MWs} \leq 5 \text{ MWs}$; \$10,000 study deposit
 - Ind. Study Projects $> 5 \text{ MWs}$ and Cluster Study; \$50,000 study deposit + \$1000/MW
- Electrical Independence Tests for CAISO Grid
 - Transmission System
 - Pass – Electrical Independence Test for Distribution System
 - Fail – Transmission Cluster Study (WDAT)
 - Distribution System
 - Pass – Independent Study Process
 - Fail – Cluster Study Process

WDAT Independent Process

- Independent Study Process - Includes: 1) Interconnection System Impact Study (SIS) and 2) Interconnection Facilities Study (IFS)
 - Interconnection System Impact Study
 - Scoping Meeting Scheduled (10 BD after valid IR)
 - Provide SIS Study Agreement to Applicant (15 BD after Scoping Meeting)
 - Conduct SIS from receipt of SIS study agreement from Applicant (30 BD)
 - Final SIS report (Timely completion)
 - Schedule Results Meeting if requested by applicant – (10 BD from SIS report)
 - Tender Draft GIA (assumes **IFS waived**).
 - Post financial security as required
 - Interconnection System Facilities Study (if required)
 - ≤ 5 MW: Requires additional \$15,000 deposit; additional information
 - Conduct IFS, issue final report (Timely completion)
 - Schedule Results Meeting if requested by applicant (5 BD - from request)
 - Tender Draft GIA (30 Calendar Days (CD) from Results Meeting)
 - Post financial security as required

WDAT Cluster Study Process

- Cluster Study Process - Includes:1) Phase I Interconnection Study and Phase II Interconnection Study
 - Applicability
 - All generating facilities classified as Cluster
 - Phase I Interconnection Study (Ph I)
 - Applicant must send notification to participate to SDG&E prior to close of study window; 2 study windows annually: **April** and **October 15 – November 15**
 - Scoping Meeting Scheduled (10 BD – after receipt of valid IR)
 - Provide Applicant Generator Interconnection Study Agreement (GISA) (30 CD after close of study window)
 - Commence Ph I study June 1 issue final study results report (200 CD from start of study)
 - Results meeting (30 CD after issue of final Ph I report)
 - Applicant submits GSIA Attachment B information
 - Post financial security as required
 - Phase II Interconnection Study (Ph II)
 - Commence Ph II study by May 1
 - Final Ph II study results report completed (205 CD from start of study)
 - Conduct results meeting (30 CD after Ph II final report)
 - Tender Draft GIA (30 CD after Ph II final report)
 - Post financial security as required

Interconnection Process Contact Information

Ken Parks

Customer Generation Manager
8316 Century Park Court, CP52F
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Office: (858) 636-5581
www.sdge.com/nem
KParks@semprautilities.com

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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 DD (GIDAP tariff) applies to interconnection requests starting with Cluster 5 http://www.caiso.com/Documents/AppendixDD_GeneratorInterconnectionAndDeliverabilityAllocationProcess_Aug1_2014.pdf
- **Cluster Windows:** Cluster 8 - April 1 to April 30, 2015
GIDAP PROCESS (Approximately 20 Months)

-
- **Interconnection Request (IR)**

 - **Scoping Meeting**

 - **Project Grouping**

 - **Phase I Interconnection Study (170 days)**

 - **Phase II Interconnection Study (205 days)**

 - **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 Full Capacity or Energy Only

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

Interconnection Q&A (1/2)

- Do projects have to obtain a deliverability study in order to be eligible for this solicitation?
 - SDG&E intends that proposed projects count towards SDG&E's RA obligations. In order to become RA eligible, a new project must apply for a deliverability study to be conducted by the CAISO. Respondents with winning offers must demonstrate that: (1) the project has been assessed for deliverability, (2) an assessment is underway, or (3) the Respondent will request a deliverability assessment through the next available CAISO cluster window. This condition must be met for winning offers that will interconnect at either the distribution or transmission level. For winning bids that result in an executed and approved agreement, during the project development process, the project is required to obtain final interconnection studies
- Who performs the FCDS study, and how does it relate to the Fast Track process?
 - The CAISO performs the FCDS study to determine costs to ensure that a project is deliverable. The Fast Track process determines the costs for a project to interconnect to the grid. SDG&E has a Fast Track process for distribution level interconnections and the CAISO has a Fast Track process for transmission level interconnections
- For smaller projects, is there a Fast Track CAISO process for the deliverability study?
 - No. For any proposed interconnection of a new Generating Facility with a Generating Facility Capacity of 20 MW or less wherein the Interconnection Customer desires the CAISO to perform a Deliverability Assessment, the Interconnection Customer shall submit an Interconnection Request to the CAISO under the Generator Interconnection Procedures

Interconnection Q&A (2/2)

- What is the relationship between Rule 21, WDAT, and GIDAP?
 - A Rule 21 application is a request for the interconnection of a Generating Facility to SDG&E's Distribution System, over which the California Public Utilities Commission (CPUC) has jurisdiction
 - A WDAT application is a request for the interconnection of a Generating Facility to SDG&E's Distribution System, over which the Federal Energy Regulatory Commission (FERC) has jurisdiction
 - GIDAP is the CAISO's Generator Interconnection and Deliverability Allocation Procedures. As these relate to SDG&E's system:
 - Transmission System – Projects connecting at 69kV and above
 - CAISO Generator Interconnection and Deliverability Allocation Procedures (GIDAP)
 - Large Projects greater than 20MW (2 studies)
 - Small Projects Less than or equal to 20MW (2 studies)
 - Distribution System – Projects connecting at 12.47kV and below
 - WDAT Large Generator Interconnection Procedures (LGIP)
 - Large Projects greater than 20MW
 - WDAT Small Generator Interconnection Procedures (SGIP)
 - Small Projects less than or equal to 20MW and greater than 1.5MW
 - SDG&E Rule 21