

Welcome to the SDG&E 2012 Request for Offers of Eligible Renewable Resources Pre-Bid Conference



2012 Request for Offers Eligible Renewable Resources Pre-Bid Conference

January 11, 2013 | 9am-12pm

SDG&E Energy Innovation Center

4760 Clairemont Mesa Blvd. | San Diego, CA 92117

Conference Outline

Agenda	Speaker(s)	Title(s)	Time
1. Safety Debrief, Agenda Review, & Legal Disclaimers	Abby Snyder Maria Boldyreva	Senior Counsel Procurement Advisor	9:00-9:05
2. Welcome & Context	Juancho Eekhout	Director of Origination	9:05-9:15
3. SDG&E Supplier Diversity	Lana Radchenko	Supplier Diversity Manager	9:15-9:20
4. RFO Scope & PPA Terms	Abby Snyder Hillary Hebert Ted Roberts	Senior Counsel Program Manager Origination Manager	9:20-9:40
5. Bid Assessment Methodology	Jonathan Jacobs Maria Boldyreva Patrick Sheats	Independent Evaluator Procurement Advisor Principal Analyst	9:40-10:10
6. How to Prepare a Conforming Bid	Maria Boldyreva Patrick Sheats	Procurement Advisor Principal Analyst	10:10-10:40
7. Break			10:40-10:50
8. Q&A Session I			10:50-11:10
9. Generation Interconnection	Mariam Mirzadeh Mike Iammarino	Transmission Planning Manager Principal Analyst	11:10-11:40
10. Q&A Session II			11:40-12:00

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 2012 RPS 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.

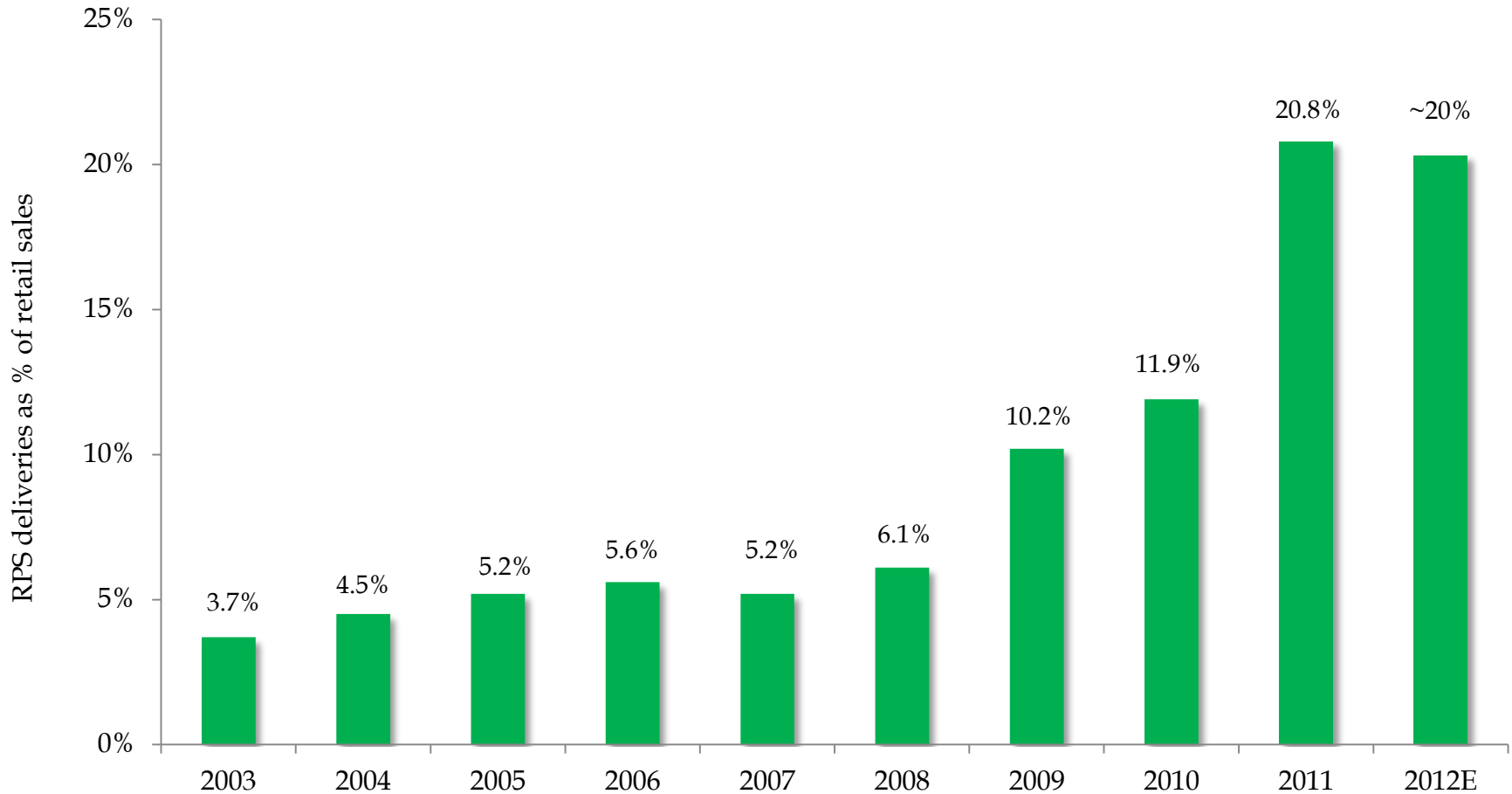
Welcome & Context

Juancho Eekhout | Director of Origination
& Portfolio Design

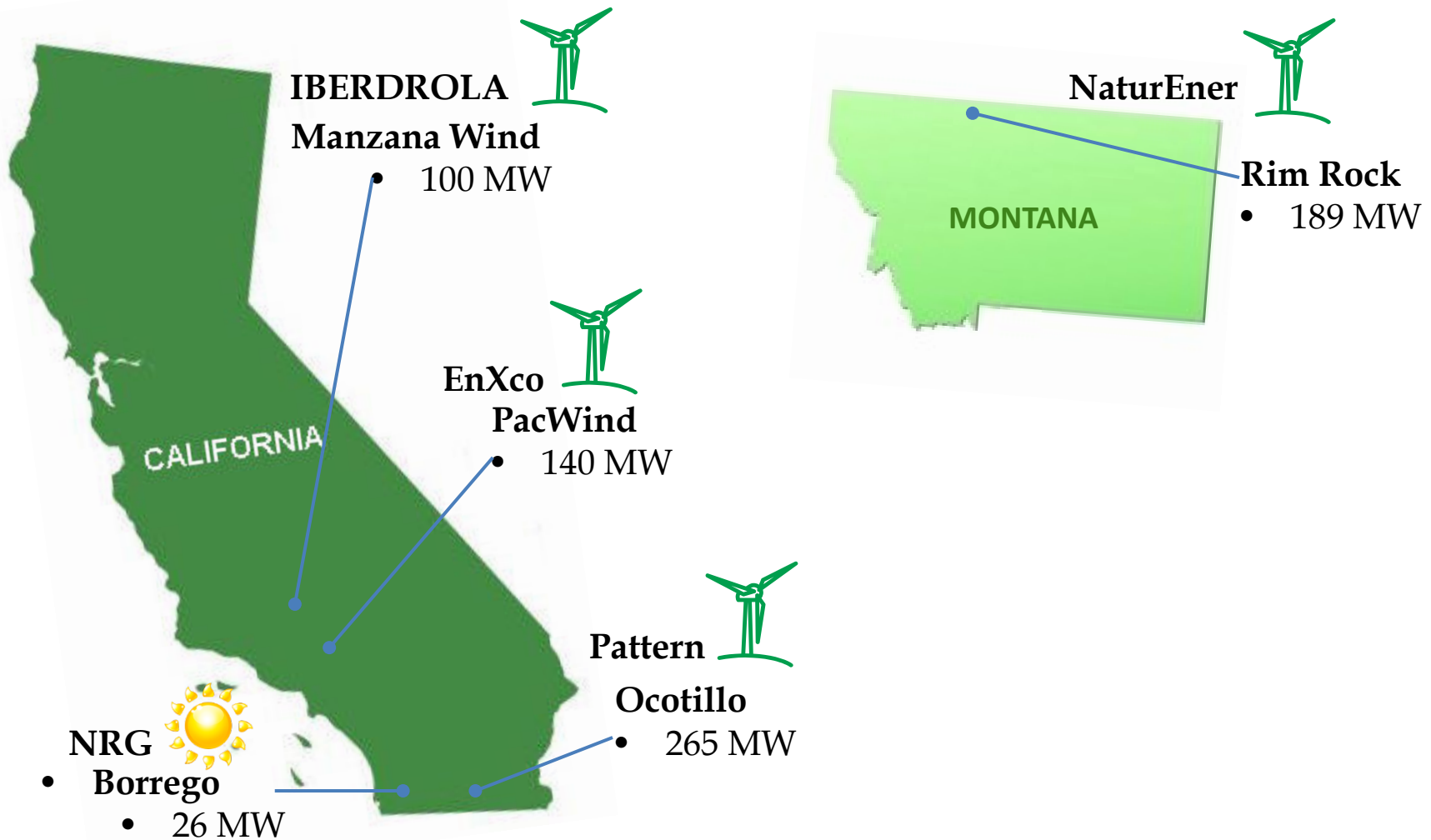
Welcome and Our Values

- We are delighted to have launched this RFO to continue to bring renewable energy to San Diegans and to help us meet our RPS goals.
- We are committed to meeting the State's RPS goals and to continue to be compliant with the RPS regulations.
- In designing this RFO, we have embedded lessons learned and plan to continue to be inclusive in incorporating our Stakeholder's perspectives.
- Assessment and selection transparency is paramount to us, and our Independent Evaluator, Jonathan Jacobs, will be explaining how today.
- Although material progress has been made in the implementation of the SBX1-2 RPS legislation, some regulatory issues continue to be in flux.

Our RPS Performance



2012 Highlights - 5 Projects Began Delivering Energy



Impacts on Our Community

The 5 projects that began deliveries in 2012 together with the 4 that began construction...



Investments
~\$3.3b



Construction
Jobs ~ 4,100



~200,000 cars
off the road



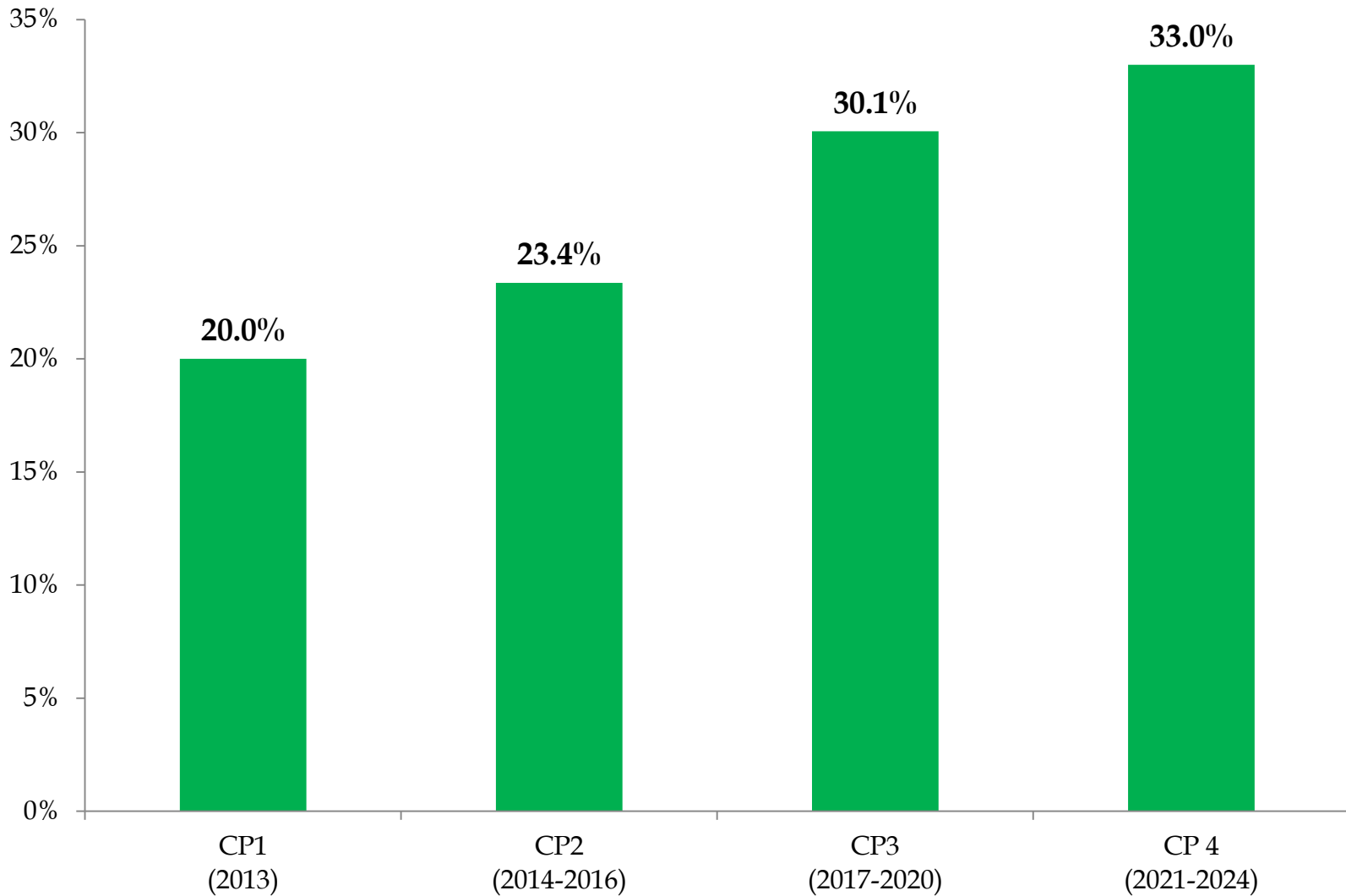
Powering
~500,000
homes

Soitec
Local Solar
Manufacturing
Facility

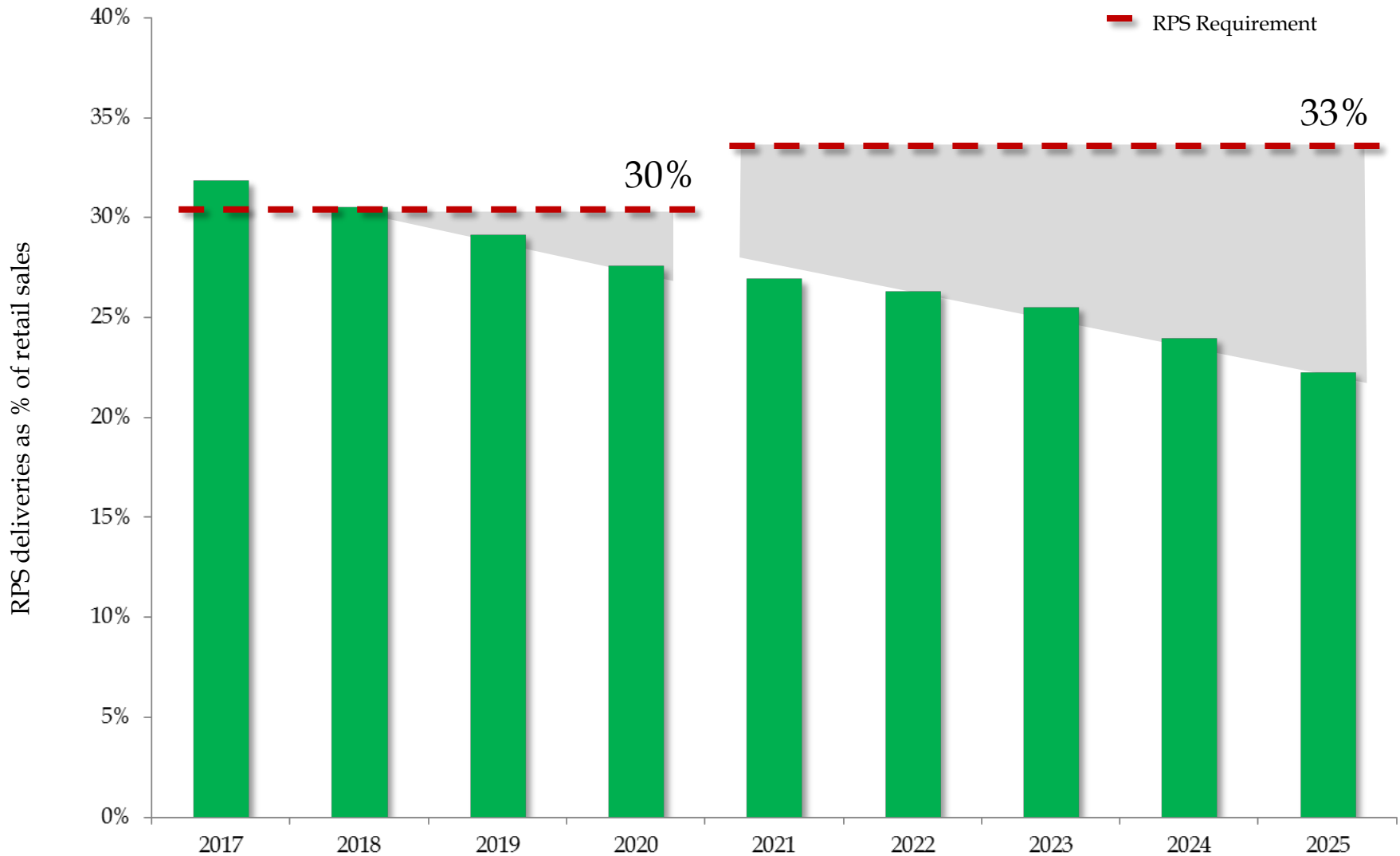


... and focusing on DBE participation

RPS Requirements Going Forward



Our Need



Preferred Products

- **Bundled Products:** term of 10, 15 or 20 years and CODs no earlier than December 2016 and no later than December 2020, with a preference for 2018 and 2019 CODs
- **Firmed & Shaped Products:** term of 10, 15 or 20 years, with CODs no earlier than January 2018 and no later than December 2020, with a preference for 2018 and 2019 CODs
- **Unbundled Products:** RECs that will be generated no earlier than December of 2013 with a preference for those generated in 2015 and later

SDG&E is interested in bids from existing, repowered, and new facilities

Some Areas of Regulatory Uncertainty & Impact on RFO Need

- Full clarity regarding
 - Procurement process improvements (PD anticipated Q1 2013)
 - Procurement expenditure limitations (PD anticipated Q3 2013)
 - LCBF reform (PD anticipated Q4 2013)
 - TOD adjustment
- SDG&E is and will continue to work in the CPUC OIR effort to bring clarity to the above as soon as possible

RFO Schedule... aiming to complete PPAs by Mar/Apr 2014

Dec

- RFO Issued on December 7, 2012

Jan

- Bidders Conference in San Diego on January 11, 2013
- Deadline to Submit Questions is January 18

Feb

- Offer Deadline: entire bid package emailed to RFO inbox by 12 PM on February 6

Apr

- Prelim. shortlist reviewed by PRG, CPUC and Independent Evaluator before April 5
- Shortlist respondents notified by April 5 and acceptance/withdrawal due by April 12
- Development Period Security fee due by April 15 for shortlisted bidders who accepted
- Final shortlist submitted by SDG&E to the CPUC and the PRG on April 17

May

- Appreciation letters to unsuccessful bidders sent by May 10
- LCBF report together with preliminary IE report due to the CPUC by May 17

***Contracts expected to be executed and filed for approval no later than April 16, 2014**

SDG&E Supplier Diversity

Lana Radchenko | Supplier Diversity Manager

Background on Diverse Business Enterprises (DBE) Program

General Order (GO) 156

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

Currently 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 every executive’s department goals and are a component of every employee’s compensation goals
- **38%** of our goods and services procurement dollars went to diverse business enterprises (DBEs) in 2011
- **34%** of our gas procurement dollars went to diverse business enterprises (DBEs) in 2011

GO156 Electric Procurement Reporting Progression

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

2013 - *for this RFO (Reference Section 1.E)*

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



Supplier Diversity Resources

SDG&E Supplier Diversity Team (contact info is on next slide)

Websites (Per Section 1.E of RFO)

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

Local SDG&E Power Supplier Advisory Panel (PSAP)

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

Statewide IOU Supplier Diversity Roundtable (SDR)

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

Supplier Diversity - Various Certification Types*

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

Lana Radchenko

Supplier Diversity Manager, SDG&E

Lradchenko@semprautilities.com

858-654-0268

Erica Beal

DBE Program Manager

EBreeden@semprautilities.com

858-636-5538

RFO Scope & PPA Changes

Hillary Hebert | Programs & Partnerships Manager

Ted Roberts | Origination Manager

Abby Snyder | Senior Counsel

Summary of Products Solicited

Product	High-level Description
Content Category 1	<ul style="list-style-type: none">• First point of interconnection (“POI”) with a California Balancing Authority (“CBA”) or with distribution facilities used to serve end users within a CBA; or• Scheduled from the eligible renewable resource (“ERR”) into a CBA without substituting electricity from another source; or• Have an agreement to dynamically transfer electricity to a CBA
Content Category 2	<ul style="list-style-type: none">• Firmed and shaped ERR products providing incremental electricity and scheduled into a CBA• Incremental electricity is defined as not in the portfolio of the retail seller prior to the firmed and shaped transaction• Energy and RECs must be sold simultaneously to SDG&E• Substitute energy contract must be the shorter of five years or the contract term
Content Category 3	<ul style="list-style-type: none">• ERR products, or any fraction of the electricity generated, including unbundled RECs, that do not qualify as Category 1 or 2

Products for 2017 – 2020 Compliance Period

Product	Size	COD	Term
Content Category 1	<p>≥ 20 MW up to 250 MW <i>SDG&E encourages limiting project capacity to 150 MW (400 GWh/year)</i></p>	<p>No earlier than December 2016 and no later than December 2020, with a preference for 2018 and 2019 CODs</p>	<p>10, 15, or 20 years</p>
Content Category 2	<p>≥ 20 MW up to 250 MW <i>SDG&E encourages limiting project capacity to 150 MW (400 GWh/year)</i></p>	<p>No earlier than January 2018 and no later than December 2020, with a preference for 2018 and 2019 CODs</p>	<p>10, 15, or 20 years</p>
Content Category 3	<p>Up to 1,500 GWh <i>(preferably through transactions smaller than 200 GWh each)</i></p>	<p>SDG&E will accept offers for RECs that have been generated no earlier than December 2013, with a preference for 2015 and later (to accommodate 36 month shelf life for unbundled RECs), must be in-state until 2018</p>	<p>Up to 5 years</p>

- SDG&E encourages those facilities with contracts expiring within the specified COD periods above to bid into this solicitation

Other Potential RPS Programs & Solicitations

Product	High-Level Description
Renewable Market-Adjusting Tariff (Re-MAT) Feed-In Tariff	<ul style="list-style-type: none">• Standard offer with no RFO• Project capacity of up to 3 MW permitted• CPUC approval of the PPA will not be required• Program is under revision, final decision approving IOU Tariffs and Joint IOU PPA anticipated Q1 2013
Share the Sun	<ul style="list-style-type: none">• Solar projects apply under Re-MAT FiT, but sell facility capacity directly to customers• Project size limit is 1 MW until 80% of the facility is subscribed, then developer may build out to 3 MW total• SDG&E will purchase unsubscribed capacity• Application Filed: January 17, 2012• Workshop Schedule: January 28-30 (San Francisco), February 11-12 (San Diego)
Renewable Auction Mechanism (RAM) RFO	<ul style="list-style-type: none">• RAM project capacity must be greater than 3 MW, with a maximum of 20 MW permitted• Next RAM RFO anticipated late Q2 2013

PPA Overview (Material Changes From 2011)

Nature of Change	PPA Section
<p>Utility right to terminate PPA if Network Upgrade costs exceed a pre-determined cap</p> <p>Seller ability to make PPA adjustments in order to avoid termination for excessive Network Upgrade Costs</p>	Section 2.3(b)(ii)
Differing TOD Factors for “energy only” vs. “full capacity deliverability” status	See tables in section 4.2(b)
<p>Seller responsible for CAISO Non-Availability charges <u>or other CAISO charges related to the Project not providing sufficient Resource Adequacy</u></p>	Sections 3.3(b)(ii), 3.3(b)(v)
<p>Seller may not, without Buyer’s consent, request changes to its interconnection plan that are inconsistent with the original plan of interconnection after the condition precedent in section 2.3(b) has been satisfied</p>	Section 3.9(a)(ii)
<p>At SDG&E’s request, Seller will provide information on the use of diverse business entities in the construction of the Project</p>	Section 3.9(a)(viii)

Other Material Changes From 2011 adopted by the CPUC

Nature of Change	Source
<p>Utility shortlists “expire” 12 months after the final shortlist is submitted to the CPUC. If a PPA with a shortlisted bid is not executed within this 12 month period, the offer automatically terminates, and no bilateral agreement with the same project may be executed until after initiation of a subsequent RPS solicitation. The project may, however, be submitted in a subsequent RFO.</p>	<p>See CPUC Decision No. 12-11-016, section 4.3.2</p>
<p>New form PPA for REC-only transactions</p>	<p>See new EEI Confirm for REC-only transactions on the RFO website</p>

CPUC Non-modifiable Standard Terms and Conditions

Term	PPA Section: Regular/REC-Only
Appear highlighted in red in regular SDG&E pro forma	
Definition of "CPUC Approval	Section 1.1 Definitions/ Article 2 Definitions
Definition of "Green Attributes"	Section 1.1 Definitions/ Article 2 Definitions
3.2 Seller conveyance of Green Attributes	Section 3.1(i)/ Section 3.1(a)
Seller Representation that project is a certified renewable resource	Section 10.2(a)/ (not applicable)
Applicable law	Section 13.8/ Section 8.2
(REC-only contract) Seller representation that RECs meet regulatory requirements for RPS compliance	Section 10.2(b)/ Section 6.1(a)
(REC-only contract) Seller warrant that all necessary steps to track RECs in WREGIS will be taken prior to the first deliveries under the contract	Section 3.1(l)/ Section 6.1(b) and 6.1(c)(iv)

Credit Provisions

Collateral to Support Long Term PPAs	From	To	Category 1 and 2 Security Amount	Category 3 Security Amount
Bid Acceptance Fee	within 5 business days from formal notification of shortlisting	Contract Execution	\$100,000	10% of contract value
CPUC Approval Security	Contract Execution	CPUC Approval Date	\$2.50/MWh multiplied by 2 times expected annual generation	Security amount, reflecting credit exposure, to be posted by the seller within 30 days following final, non-appealable CPUC approval. The amount of credit exposure is determined by SDG&E based on its internal models using available market data and/or best estimates.
Development Period Security	CPUC Approval Date	Date on which all Conditions Precedent are satisfied or waived	\$5.00/MWh multiplied by 2 times expected annual generation	N/A
Construction Period Security	Date on which all Conditions Precedent are satisfied or waived	COD	\$10.00/MWh multiplied by 2 times expected annual generation	N/A
Delivery Term Security	COD	End of Term	\$20.00/MWh multiplied by 2 times expected annual generation	N/A

Updated TOD Factors

TOD Period	Period Days and Hours	Energy Only Time of Day Factor	Full Capacity Deliverability Status Time of Day Factor
Winter On-Peak	Nov 1 - Jun 30 Weekdays 1 pm to 9 pm PST (HE 14 to HE 21)	1.192	1.089
Winter Semi-Peak	Nov 1 - Jun 30 Weekdays 6 am to 1 pm PST (HE 7 to HE 13) Weekdays 9 pm to 10 pm PST (HE 22)	1.078	0.947
Winter Off-Peak	Nov 1 - Jun 30 All Weekend Hours, NERC Holiday Hours, and Weekday Hours not already considered On-Peak or Semi-Peak	0.774	0.679
Summer On-Peak	Jul 1 - Oct 31 Weekdays 11 am to 7 pm PST (HE 12 to HE 19)	1.531	2.501
Summer Semi-Peak	Jul 1 - Oct 31 Weekdays 6 am to 11 am PST (HE 7 to HE 11) Weekdays 7 pm to 10 pm PST (HE 20 to HE 22)	1.181	1.342
Summer Off-Peak	Jul 1 - Oct 31 All Weekend Hours, NERC Holiday Hours, and Weekday Hours not already considered On-Peak or Semi-Peak	0.900	0.801

Bid Assessment Methodology: Checks & Balances, LCBF

Jonathan Jacobs | Independent Evaluator, PA Consulting

Maria Boldyreva | Procurement Advisor

Patrick Sheats | Principal Analyst

Assessment Methodology; PPA Bids

Each bid will be evaluated through Least Cost, Best Fit process using the Commission's Net Market Value (NMV) methodology.

Bids will be evaluated on net of contract benefits less contract costs. Contract costs are composed of three quantitative elements:

- Levelized Contract Cost (TOD-adjusted)
- Transmission upgrade cost
- Congestion cost estimate

Contract benefits are composed of two quantities, Energy Benefit and Capacity Benefit.

- Energy Benefit (TOD-adjusted MPR value specific to the project less Deliverability Benefit)
- Capacity Benefit (60% to 100% of Deliverability Benefit for FCDS project, zero for energy-only projects)

Qualitative Analysis; PPA Bids

For bids that have similar Bid Ranking Prices, SDG&E will evaluate qualitative factors, including:

- Project Viability
 - Project viability is an important criterion
 - Viability calculations are subject to SDG&E review and revision
- Contract Term
 - Up to 20 years (>20 years are not eligible. Shorter may be better.)
- Project Size
 - SDG&E prefers projects that exceed the RAM's 1-20 MW range, unless outside the CAISO balancing authority
 - Prefer projects < 150 MW with < 400 GWh per year (projects >250 MW will be rejected)
- COD
 - No earlier than December 2016, with a preference for CODs in 2018 or later
- DBE Component
 - Either through ownership or material subcontracting

Assessment Methodology; REC Bids

Each bid will be evaluated through Least Cost, Best Fit process using the Commission's Net Market Value (NMV) methodology.

Contract cost is composed of one quantitative element:

- REC price*

Qualitative Analysis; REC Bids

For bids that have similar Bid Ranking Prices, SDG&E will evaluate qualitative factors, including:

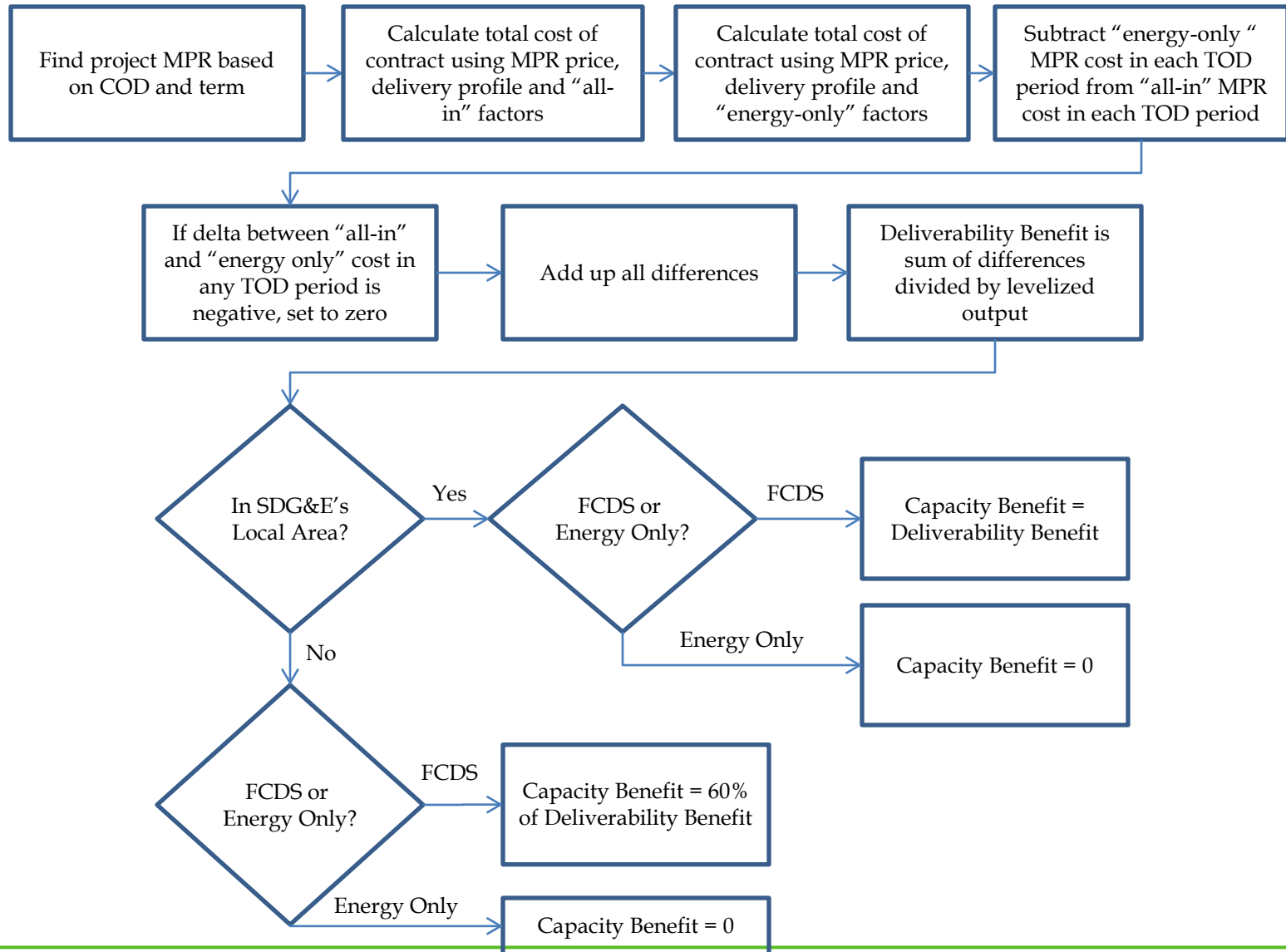
- Contract Term
 - Up to 5 years
- Offer Size
 - Up to 1,500 GWhs
- REC Shelf Life (36 months)
 - Prefer projects in 2015 and later, but not early than December 2013
- DBE Component
 - Either through ownership or material subcontracting

Renewable Energy Credit (REC)

Lowest cost RECs that SDG&E can verify are valid under CPUC rules will be chosen

Verification will require that bidder provides documentation of the source(s) of the RECs, the period of time when the RECs were generated, and (if not connected to CAISO) where in California the energy was delivered

Capacity Benefit Calculation



Deliverability

2012 Capacity Benefit	
Source	Proxy for cost of building new generation
Method	Value derived from the difference between the MPR calculated with energy only TOD factors and capacity adjusted TOD factors
Scope	Values all capacity attributes

	LOCATION			
INTERCONNECTION TYPE	IN SDG&E AREA	IN CALIFORNIA ISO; OUTSIDE SDG&E AREA	IMPORTS TO CAISO FROM WITHIN CALIFORNIA	IMPORTS TO CAISO FROM OUTSIDE CALIFORNIA
CAPACITY BENEFIT FOR FULLY DELIVERABLE PROJECTS	100% of Deliverability Benefit	60% of Deliverability Benefit	60% of Deliverability Benefit	Zero (dynamic transfers into CAISO get 60% of Deliverability Benefit)
CAPACITY BENEFIT FOR ENERGY-ONLY PROJECTS	Zero	Zero	Zero	Zero

AVERAGE DELIVERABILITY BENEFITS	SOLAR PV	SOLAR THERMAL	WIND	BASELOAD
LOCAL	\$19.14	\$21.03	\$7.65	\$9.73
SYSTEM	\$11.48	\$12.62	\$4.59	\$5.84

How to Prepare a Conforming Bid: Required Forms and Common Mistakes

Maria Boldyreva | Energy Procurement Advisor

Patrick Sheats | Principal Analyst

Required Forms – Category 1 Offers

- 1) **Participation Summary**
- 2) **Project Description Form** – *Submit one per project.*
- 3) **Pricing Form** – *Respondents may submit up to three pricing options per project.*
- 4) **Credit Application**
- 5) **Model PPA** – *Required for offers that include energy deliveries. Respondents shall populate and redline the Model PPA.*
- 6) **Project Viability Calculator** – *Respondents must self assess the viability of the proposed project using the CPUC's Project Viability Calculator.*
- 7) **Interconnection Documents** – *Respondents must provide an electronic copy of project's completed CAISO GIP Phase I or equivalent study, or if the facility is existing, must provide the facility's interconnection agreement.*

The Participation Summary, Project Description Form, Credit Application, redlines to the Model PPA and Additional Narrative Form must be in Word format (not in PDF). The Pricing Form and Project Viability Calculator must be in Excel format (not in PDF). Interconnection Documents in PDF.

Required Forms – Category 2 Offers

- 1) Participation Summary**
- 2) Project Description Form** – *Submit one per project.*
- 3) Pricing Form** – *Respondents may submit up to three pricing options per project.*
- 4) Credit Application**
- 5) Model PPA** – *Required for offers that include energy deliveries. Respondents shall populate and redline the Model PPA.*
- 6) Project Viability Calculator** – *Respondents must self assess the viability of the proposed project using the CPUC's Project Viability Calculator.*
- 7) Interconnection Documents** – *Respondents must provide an electronic copy of project's completed CAISO GIP Phase I or equivalent study (Electric Reliability Corporation Transmission Operator), or if the facility is existing, must provide the facilities' interconnection.*
- 8) Firming and Shaping/Substitute Energy Agreement** – *Respondents must provide evidence of the proposed project's firming and shaping agreement (draft or executed version if completed)*

The Participation Summary, Project Description Form, Credit Application, redlines to the Model PPA and Additional Narrative Form must be in Word format (not in PDF). The Pricing Form and Project Viability Calculator must be in Excel format (not in PDF). Interconnection documents and Firming and Shaping Agreement (if completed) in PDF.

Required Forms – Category 3 Offers

- 1) **Participation Summary**
- 2) **Project Description Form** – *Submit one per project.*
- 3) **REC Pricing Form** – *Respondents may submit up to three pricing options per project.*
- 4) **Model REC Agreement** – *Required for offers for unbundled RECs only. Respondents shall populate and redline the Model REC PPA.*

The Participation Summary, Project Description Form, redlines to the Model REC Agreement must be in Word format (not in PDF). The Pricing Form must be in Excel format (not in PDF).

Top Ten Mistakes on Pricing Forms

10. **Entering prices in cents/kWh and deliveries in kWh instead of \$/MWh and MWh**

Pricing form entries that are inconsistent with the units shown at the top of the pricing form column may require corrections. If time constraints in the RFO processing are too great, the bid may be declared non-conforming and rejected.

9. **No project location**

At the very least, a bid must have a fixed physical location. Entering vague information such as “Anywhere in 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.

8. **Inconsistent contract terms between worksheets**

Prices and deliveries should start at the same date as the COD. Deliveries and prices should stop in the final contract year. Pricing forms for contracts of 25 year terms that only have 20 years of pricing and deliveries, or any other mismatch that is not explained in the pricing form, may be declared non-conforming and rejected.

Top Ten Mistakes on Pricing Forms

7. **Forgot to specify Time-of-Day or Flat Pricing**

Contracts that sell under Time-of-Day (“TOD”) Pricing have different costs and benefits than contracts with Flat (“non-TOD”) Pricing. Bids that offer TOD Pricing that are then declared Flat Pricing by bidders may be declared non-conforming and rejected.

6. **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.

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.

Top Ten Mistakes on Pricing Forms

4. 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.

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. Out-of-ISO projects priced “at the busbar”

The RFO states that bid prices should be as delivered to SDG&E. Projects that do not interconnect with CAISO must be “wheeled” to CAISO under the appropriate Open Access Transmission Tariff for the host balancing authority, and all other balancing authorities between the project and the CAISO. Bids that do not incorporate these costs, or other factors such as transmission losses and expected curtailments, may be declared non-conforming and rejected.

Top Ten Mistakes on Pricing Forms

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 (renewablerfo@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. Failure to submit corrected bid forms may result in a bid being declared non-conforming and rejected.

How to Prepare a Conforming Bid

First, remember the basics

- Fill -in ALL Required Forms
- 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 percentages of maximum capacity expected in the hour
 - Don’t overlook the drop-down boxes, or put text in numeric fields
- Check to see that the data in the pricing 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 renewable RFO requires processing hundreds of bids. There will be little time to check with bidders regarding inconsistencies on pricing forms.

How to Prepare a Conforming Bid

Second, make sure you have a complete and conforming bid

- ALL required forms and documents should be submitted
- A “bid” consists of one project and at least one option
 - Projects are specific plants at specific locations to be developed by the bidder (“developer”)
 - Options are the contractual terms including commercial operation date, term, energy deliveries, maximum capacity, point of interconnection, point of delivery, and price
- Bids should include all of the terms above at a minimum
 - Alternate locations for projects are not options, they are separate projects
 - Fill out separate Pricing Forms for each project/option combination
 - Do not add worksheets or change worksheet names
 - Project description forms do not have to be filled out for separate project/option combinations, but all Pricing Forms should conform with information in the Project Description Form

How to Prepare a Conforming Bid

Third, do the homework and live with the bid

- Make sure that bid pricing is sufficient to cover required returns
 - Pricing should be consistent with pricing assumptions in project's proforma financial model
 - The simpler, the better
- Have a reasonable build-out schedule for the project
 - COD should be consistent with project schedule
 - Project schedules should include reasonable assumptions for negotiations, regulatory approvals and transmission interconnections
- Deliveries and profiles should be consistent with resource and equipment
- Make sure that costs, capacities and deliveries incorporate effects of expected outages, transmission tariffs, line losses and curtailments up to and including the point of delivery

How to Prepare a Conforming Bid: Pricing Form (PPA)

Basic Bid Information



2012 RPS Solicitation
Eligible Renewable Resources

Company Information		Company Representative	
		Primary Contact	Secondary Contact
Company Name Submitting Offer:		Contact Name:	
Company Name on Potential Contract:		Contact Title:	
Company Address:		Office Number:	
		Cell Number:	
		Email:	
Project Name:		Company is Women/Minority/Disabled Veteran owned Business Enterprise as per CPUC General Order 156? <input type="checkbox"/>	
Project Letter:		<div style="background-color: #4a7ebb; color: white; padding: 5px; text-align: center;">Please insert all required information and ensure consistency among all required forms</div>	
Offer Type:	PPA		
Technology/Fuel:		<div style="background-color: #4a7ebb; color: white; padding: 5px; text-align: center;">Check that technology is correct</div>	
Resource origin:			
Resource Location:		<div style="background-color: #4a7ebb; color: white; padding: 5px; text-align: center;">Insert Interconnection point</div>	
Interconnection Point (Or Point of Entry Into California):			
Nearest 230 kV Substation:		<div style="background-color: #4a7ebb; color: white; padding: 5px; text-align: center;">Fully deliverable or not?</div>	
Balancing Authority (and Transmission Operator):			
Interconnection Class:		<div style="background-color: #4a7ebb; color: white; padding: 5px; text-align: center;">Delivery Point (not always the same as interconnection point)</div>	
Proposed CAISO Delivery Point:			
Facility Nameplate Capacity: _____ MW		<div style="background-color: #4a7ebb; color: white; padding: 5px; text-align: center;">Guaranteed COD</div>	
Net Contract Capacity: _____ MW			
Guaranteed Commercial Operation Date:		<div style="background-color: #4a7ebb; color: white; padding: 5px; text-align: center;">Insert no more than 20 years</div>	
PPA Term: _____ years from Guaranteed COD, above			

How to Prepare a Conforming Bid: Pricing Form

Delivery Profile



2012 RPS Solicitation
Eligible Renewable Resources

Instructions:

Populate the table below with the hourly capacity factor from the project. Hourly capacity factor should be the ratio of expected generation in the hour to project nameplate capacity in AC as reported on the "PROJECT INFORMATION" worksheet, cell D29.

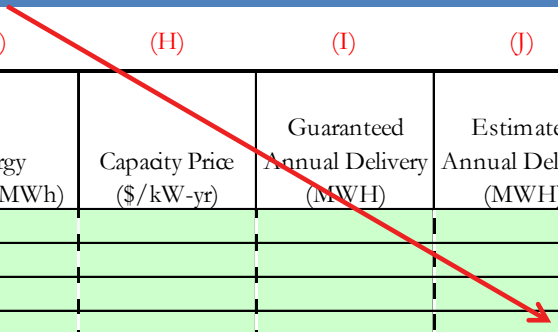
Numbers in profile are all percentages of maximum output per MW of capacity

		GENERATION AS PERCENT OF NAMEPLATE CAPACITY (%)													
		WINTER						SUMMER				WINTER			
		January	February	March	April	May	June	July	August	September	October	November	December		
Weekday	Hour Beginning	Hour of Day	Hour of Week												
Monday	12:00 AM	1	1												
Monday	1:00 AM	2	2												
Monday	2:00 AM	3	3												
Monday	3:00 AM	4	4												
Monday	4:00 AM	5	5												
Monday	5:00 AM	6	6												
Monday	6:00 AM	7	7												
Monday	7:00 AM	8	8												
Monday	8:00 AM	9	9												
Monday	9:00 AM	10	10												
Monday	10:00 AM	11	11												
Monday	11:00 AM	12	12												
Monday	12:00 PM	13	13												
Monday	1:00 PM	14	14												
Monday	2:00 PM	15	15												
Monday	3:00 PM	16	16												
Monday	4:00 PM	17	17												
Monday	5:00 PM	18	18												
Monday	6:00 PM	19	19												
Monday	7:00 PM	20	20												
Monday	8:00 PM	21	21												
Monday	9:00 PM	22	22												
Monday	10:00 PM	23	23												
Monday	11:00 PM	24	24												

How to Prepare a Conforming Bid: Pricing Form

Deliveries are consistent with calculated deliveries from Profile worksheet

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)
Contract Year	Start Date	Stop Date	Net Contract Capacity (MW)	Forecast Index Price (\$/MWh)	Fixed Energy Price (\$/MWh)	Energy Price (\$/MWh)	Capacity Price (\$/kW-yr)	Guaranteed Annual Delivery (MWH)	Estimated Annual Delivery (MWH)
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									



How to Prepare a Conforming Bid: Project Viability Calculator (PVC)

- score card -

Project Scoring		range 0 - 10		Utility	IE
weight					
25%	Company / Development Team				
4	Project Development Experience				
1	Ownership / O&M Experience				
	<i>Total Category</i>	0		0	
	<i>Weighted Criteria</i>	0		0	
	<i>Normalized Category</i>	0.00		0.00	
	<i>Weighted Category</i>	0.00		0.00	
25%	Technology				
4	Technical Feasibility				
2	Resource Quality				
3	Manufacturing Supply Chain				
	<i>Total Category</i>	0		0	
	<i>Weighted Criteria</i>	0		0	
	<i>Normalized Category</i>	0.00		0.00	
	<i>Weighted Category</i>	0.00		0.00	
50%	Development Milestones				
4	Site Control				
4	Permitting Status				
4	Project Financing Status				
4	Interconnection Progress				
3	Transmission Requirements				
3	Reasonableness of COD				
	<i>Total Category</i>	0		0	
	<i>Weighted Criteria</i>	0		0	
	<i>Normalized Category</i>	0.00		0.00	
	<i>Weighted Category</i>	0.00		0.00	
Total Weighted Score		0.00		0.00	

- Project Viability Calculators are required by the CPUC.
- Scoring must be done according to the criteria guidelines described in the workbook.
- Criteria weighting is set by the CPUC. SDG&E will correct any adjustments made by bidders to the criteria weighting
- If the bidder cannot provide documentation to validate the entries in the PVC, or the bidder has values that do not follow the CPUC guidelines, SDG&E may modify entries to conform to CPUC specifications.

*Please submit your questions by
January 18, 2013
to
renewablerfo@semprautilities.com*

2013 CAISO Generator Interconnection Process

Mariam Mirzadeh | Transmission Planning Manager

Generation Interconnections to SDG&E

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 due to the high number of small projects Interconnection Requests through SGIP.
 - Large Projects > 20MW (2 Studies)
 - Small Projects < or = 20MW (2 Studies)
- 2012 CAISO Transmission Planning Process (TPP) - Generator Interconnection Procedures (GIP) Integration (resulted in the new Generation Interconnection Procedures: GIDAP)

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 Procedures (GIP) Summary

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

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

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

- CAISO Tariff Appendix DD (Integration of Transmission Planning Process (TPP) and GIP) applies to interconnection requests starting with Cluster 5

http://www.caiso.com/Documents/TariffAppendixDD_Nov5_2012.pdf

- Cluster Windows *- one each year (Cluster 5 ended March 31, 2012) (Cluster 6 will end April 30, 2013, and Cluster 7 will end April 30, 2014)

- **Interconnection Request (IR)**

- **Scoping Meeting**

- **Project Grouping**

- **Phase I Interconnection Study**

- **Phase II Interconnection Study**

- **Posting of Financial Security**

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

Cluster Study Windows and IR

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

A completed IR includes:

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

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

* CAISO Tariff Appendix DD

Scoping Meeting and Project Grouping

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

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

Phase I Interconnection Study

- Commences April/May 1st each year – Completed and Final Phase I Study report issued by year-end (~ 170 Days).
- SDG&E - Reliability Network Upgrade (RNU) studies (a short circuit, stability, and power flow analysis including off-peak analysis)
- CAISO - Delivery Network Upgrade (DNU) studies (an On-Peak and Off-Peak (for information only) Deliverability Assessment for FC projects, required to receive Resource Adequacy (RA) qualification for PPA).
- Preliminary identification of the Interconnection Facilities and Network Upgrades required for each IR. Assess the POI and potential alternatives.
- Establish max. cost responsibility for RNU 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, and/or modify the interconnection configuration.

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*
- The Deliverability Assessment will consist of two rounds, the first of which will identify any transmission constraints that limit the Deliverability of the Generating Facilities in the Group Study and will identify LDNUs to relieve the local constraints, and second of which will determine ADNUs to relieve the area constraints.
 - *LDNU – “Local” Deliverability Network Upgrades*
 - *ADNU – “Area” Delivery Network Upgrades*

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.*

Between Phase I and Phase II Interconnection Studies (con't)

Between Phase I study results and prior to the start of Phase II study:

- CAISO to provide latest comprehensive transmission plan and establish resource portfolios to be used in the new TPP cycle,
 - CAISO 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, **Conformed fifth replacement California ISO Tariff as of Nov 5, 2012 - Appendix DD**

http://www.caiso.com/Documents/TariffAppendixDD_Nov5_2012.pdf

Phase II Interconnection Study

- Commences May 1st each year – Completed and Final Phase II Study report issued November 30th each year (~ 205 Days)
- Updates analyses performed in the Phase I studies to account for changes, i.e. changes to IRs, withdrawal of IRs as applicable
- Identifies final Network Upgrades (RNU, LDNU, ADNU) needed to physically interconnect the Generating Facilities and assigns responsibility for financing the identified final Network Upgrades
- Identifies 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

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	<p>Lesser of</p> <ul style="list-style-type: none"> • 15% of phase I study estimated network upgrade costs • \$20,000 per MW <p>(but not less than the lesser of \$50,000, or the estimated cost of network upgrades)</p>	<p>Lesser of</p> <ul style="list-style-type: none"> • \$1 million • 30% of lower of phase I or phase II study estimated network upgrade costs <p>(but not less than the lesser of \$100,000, or the estimated cost of the network upgrades)</p>	100% of lower of phase I or phase II study estimated network upgrade costs
Greater than 20MW	<p>Lesser of</p> <ul style="list-style-type: none"> • \$7.5 million • 15% of Phase I estimated network upgrade costs • \$20,000 per MW <p>(but not less than the lesser of \$50,000, or the estimated cost of network upgrades)</p>	<p>Lesser of</p> <ul style="list-style-type: none"> • \$15 million • 30% of lower of phase I or phase II study estimated network upgrade costs <p>(but not less than the lesser of \$500,000, or the estimated cost of the network upgrades)</p>	100% of lower of phase I or phase II study estimated network upgrade costs

Generator Interconnection Agreements (LGIA & SGIA)

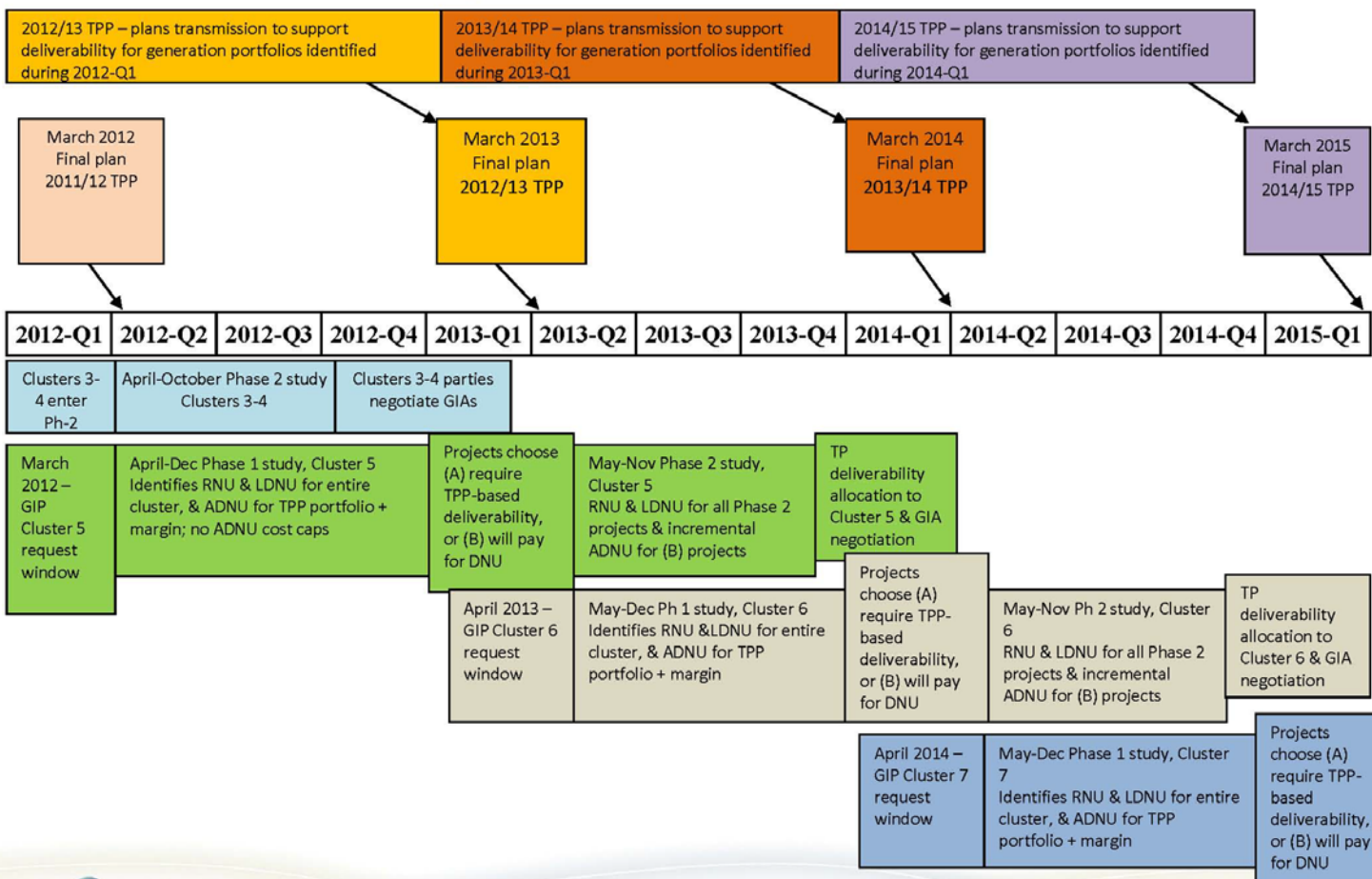
- Three-party agreement between the CAISO, SDG&E, and IC
- SDG&E to provide Draft GIA to IC within 30 Days of final Phase II Study report
- IC written comments/indication of no comments to the SDG&E and CAISO due within 30 Days of receipt of the Draft GIA
- Negotiations to be completed and GIA executed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

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

Timeline for Integrated TPP and GIP

Timeline for Integrated TPP and GIP



Generation Interconnection Information

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

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

CAISO Generation Interconnection Process Contact:

- Lead Interconnection Specialist : Judy Brown (916) 608-7062
JBrown@caiso.com

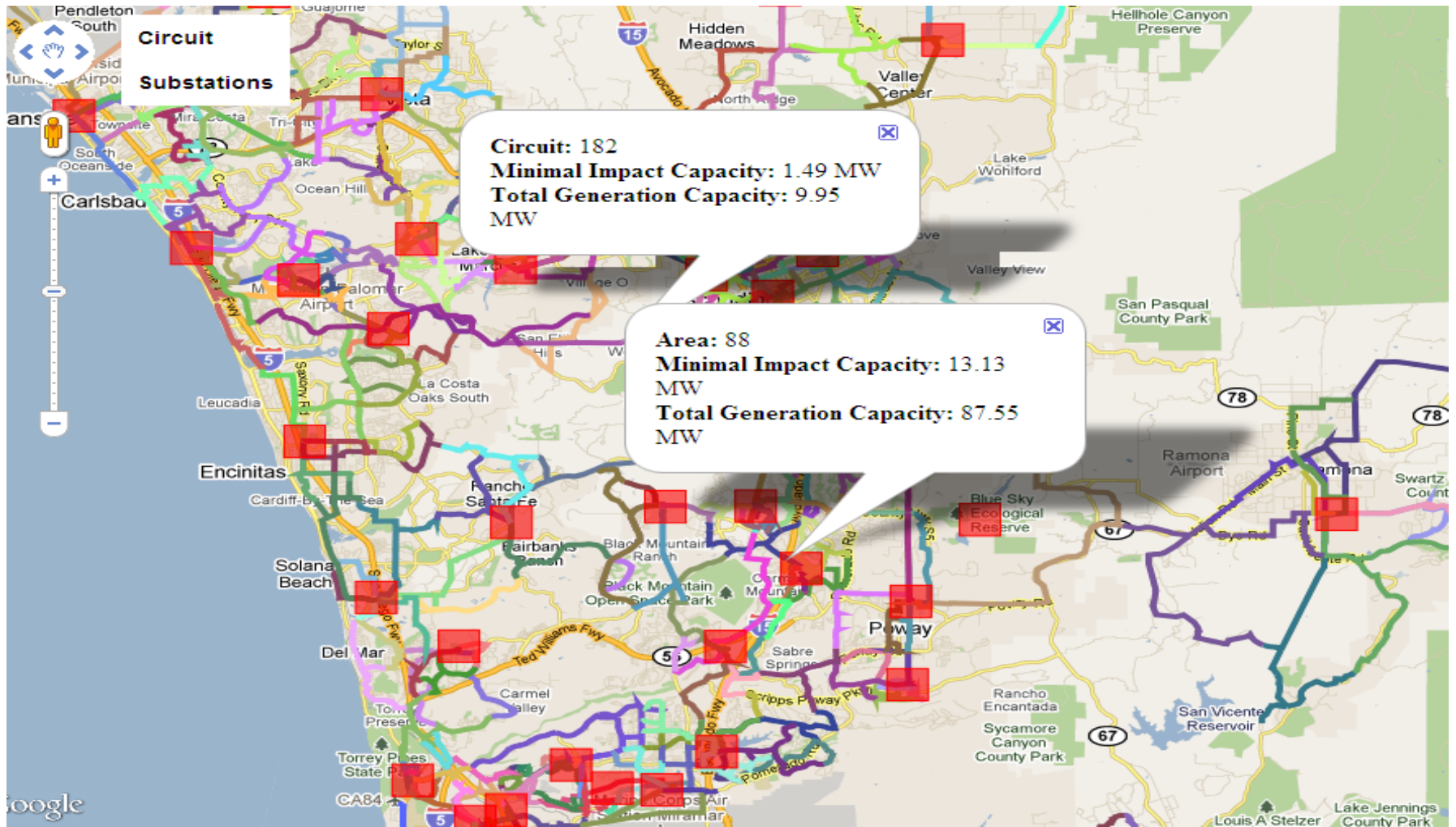
SDG&E Contacts:

- Transmission Planning Manager: Mariam Mirzadeh (858) 654-1673,
MMirzadeh@semprautilities.com;
- Generation Interconnection Process Manager: Marlene Mishler (858) 654-8640,
Mmishler@semprautilities.com; or
- Energy Administrator: Khoang Ngo (858) 637-7905, KNgo@semprautilities.com

2013 WDAT LGIP/SGIP Interconnection Process

Mike Iammarino | Principal Business Analyst

Distribution Generation Interactive Map



Registration Form for access: <http://sdge.com/builderservices/dgmap/>

Fast Track & Study Process

Fast Track – approximately six months

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

Study Process – approximately 18 months

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

Study Process & Scoping Meeting

Scoping Meeting

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

Study Process

Study	Timing	Study Procedures	Study Deposit
Feasibility Study	50 BD	<ul style="list-style-type: none"> • Steady State Analyses • Initial Interconnection Cost estimates 	\$10,000
System Impact Study	90 BD	<ul style="list-style-type: none"> • Dynamic Analyses • Updated Interconnection Cost estimates 	\$25,000
Facilities Study	80 BD	<ul style="list-style-type: none"> • Electrical switching configuration • Cost of equipment, engineering, procurement and construction work • Time required to complete construction and interconnect • Final Interconnection Cost estimates 	\$25,000

SDG&E WDAT Contact:

Ken Parks

Customer Generation Manager:

(858) 636-5581

www.sdge.com/wdat

*Please submit your questions by
January 18, 2013
to
renewablerfo@semprautilities.com*