

SDG&E 2021-2023 IRP Reliability RFO Bidders' Conference

WEBINAR ONLY

Webinar link:

[Join WebEx Meeting](#)

January 10, 2020

9:00 am to 11:00 pm (PPT)

The logo for San Diego Gas & Electric (SDGE) features the letters "SDGE" in a bold, black, sans-serif font. The letters are slightly slanted to the right. A thick, red, curved bar underlines the letters, starting under the "S" and ending under the "E".The logo for Sempra Energy utility features a stylized red figure holding a blue flame or torch. To the right of the figure, the text "Sempra Energy utility" is written in a blue, sans-serif font, with a registered trademark symbol (®) at the end.

Welcome & Agenda

Brian Elliott
Energy Supply

Agenda

Time	Presenter	Topic
09:00	Brian Elliott	Welcome & Agenda
09:05	Abby Snyder	Procedures and Legal Disclaimers
09:10	David Thai	SDG&E and Supplier Diversity
09:15	Jon Jacobs	Role of the Independent Evaluator
09:20	Brian Elliott	Solicitation Overview (Part 1)
09:30	Dan Wilson	Solicitation Overview (Part 2)
09:40	Brian Elliott	Overview of Bidding Process
10:00	Brian Elliott	Offer Submission Process
10:10	Dan Wilson	Bid Evaluation
10:20	Joanne Wang	Collateral Requirements
10:25	Mike Turner	WDAT and Rule 21 Interconnection Processes
10:30	Darren George	CAISO Interconnection & Deliverability Allocation Procedures



Logistics

Procedure for Questions

- Questions can be submitted during presentation via the following:
 - WebEx messaging feature
 - IRP RFO e-mail - IRPReliabilityRFO@sdge.com
- Questions received during the presentation via above methods will be addressed either
 - At the end of the webinar
 - In the FAQ document available on the IRP Reliability RFO website:
<https://www.sdge.com/2021-2023-irp-reliability-rfo>

Audio

- Microphones will be on mute for all participants for the duration of the webinar



Anti-Trust & Document Conflict

Abby Snyder
Legal

Legal Disclaimer: 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 IRP Reliability RFO documentation. To the extent that there are any inconsistencies between the information provided in this presentation and the requirements in the RFO documentation, the RFO documentation shall govern.

SDG&E and Supplier Diversity

David H. Thai
Energy Supply

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

Background: Diverse Business Enterprises (DBE)

General Order (GO) 156

- History: Adopted by the California Public Utilities Commission in 1986 and with Electric Procurement reporting added in 2012
- Purpose: 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
- Qualitative Metric: In the event of a tie between two offers, SDG&E will consider a Respondent's status as a DBE and or a Respondent's plan to utilize the services of DBEs during project development

California Public Utilities Commission (CPUC) Supplier Clearinghouse

- Register to become a DBE supplier, <http://www.thesupplierclearinghouse.com/>

Questions?

SDG&E Supplier Diversity Team

Email: vendorrelations@sdge.com

Phone: 1 (866) 616-5565

**DBE Reference Websites: <http://www.sempra.com/about/supplier-diversity/> & <http://www.cpuc.ca.gov/puc/supplierdiversity/>*



Role of the Independent Evaluator

Jon Jacobs
PA Consulting

Independent Evaluator Introduction and Role

- Jon Jacobs of PA Consulting Group will be the Independent Evaluators (“IEs”) for this solicitation. Jon has served as the IE for previous SDG&E RFOs (e.g., RPS, all-source RFO, etc.)
 - The IE oversees SDG&E’s Bid Evaluation Team
 - 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 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

Independent Evaluator Contact Information

Any emails sent to SDG&E at
IRPReliabilityRFO@sdge.com
MUST also be cc'd to these addresses:

Jon Jacobs -
jonathan.jacobs@paconsulting.com

Solicitation Overview

Part I

Brian Elliott
Energy Supply

SDG&E's IRP Reliability RFO

- On November 7, 2019, the California Public Utilities Commission (“CPUC”) voted out a revised IRP Procurement Track proposed decision (“PD”) requiring electric system reliability procurement for 2021-2023 in the Integrated Resource Planning proceeding, Rulemaking 16-02-007
- SDG&E is directed to procure 292.9 MW of incremental system resource adequacy capacity
- Energy Storage EPC and BOT bidding will not be covered in this webinar
 - Questions relating to ESSEPC and ESSBOT can be sent to
UtilityDevelopmentTeam@sdge.com



Solicitation Q&A

- SDG&E has posted questions and answers on the solicitation website (<https://www.sdge.com/2021-2023-irp-reliability-rfo>)
- Questions from today will be documented and all questions and their associated answers will be posted on the RFO website
- Questions can be submitted to IRPReliabilityRFO@sdge.com (please cc the IE) at any time until the question submittal deadline
- Respondents are encouraged to submit questions as soon as possible
- Deadline to submit questions: January 24, 2020
 - SDG&E will post answers to questions as they are received. The final set of answers will be shared no later than January 31, 2020

IRP Reliability RFO Authorization and Online Dates

- SDG&E is directed to procure 292.9 MW of incremental system resource adequacy capacity. Resources procured must be incremental to the baseline resource assumptions identified for the analysis that led to the adoption of the Preferred System Plan in Decision 19-04-040
- COD Requirements
 - 50% (146.5MW) online by August 1, 2021
 - 75% (219.7MW) online by August 1, 2022
 - 100% (292.9MW) online by August 1, 2023

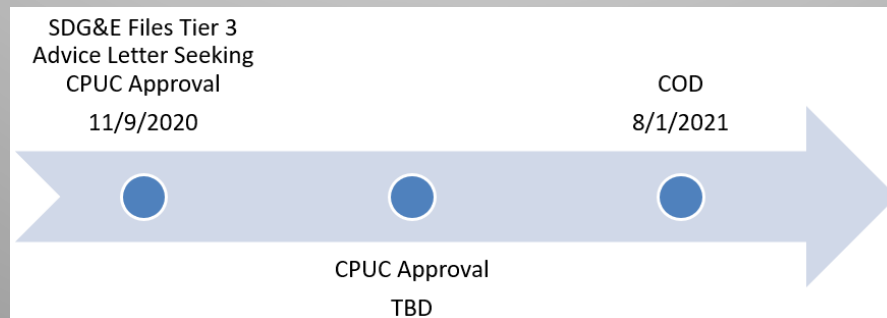
IRP Reliability RFO Solicited Technologies

- The State of California has set ambitious policy goals relating to carbon emission. To assist meeting these statewide goals, preferred resources will be given priority per the following loading order:
 - 1) Demand Response
 - 2) Energy Efficiency
 - 3) Energy Storage/Hybrid Renewable
 - ▶ PPA, EPC, BOT
 - 4) Renewable-Only
 - 5) Gas-Fired Generation/CHP

IRP Reliability RFO Timeline

	Event	Dates*
1	Launch IRP Procurement Track RFO	Fri-Dec-13-2020
2	RFO Pre-Bid Conference	Fri-Jan-10-2020
3	Deadline to submit any questions	Fri-Jan-24-2020
4	Answers to all questions will be posted	Fri-Jan-31-2020
5	Deadline for RFO bid submissions	Fri-Feb-07-2020
6	SDG&E Begins evaluation process	Mon-Feb-10-2020
7	PRG Review of Shortlist	Fri-Jun-05-2020
8	Notify Offerors of selection	Mon-Jun-08-2020
9	Shortlist acceptance/withdrawal	Mon-Jun-15-2020
10	Notify appreciation notices to unsuccessful respondents	Fri-Jul-03-2020
11	Contract Execution	Mon-Oct-26-2020
12	Collateral Posted	Fri-Oct-30-2020
13	IOU files Tier 3 advice letter seeking CPUC approval of contracts	Mon-Nov-09-2020

* Dates subject to change



Solicitation Overview

Part II

Dan Wilson
Energy Supply

RFO Requirements

- This solicitation is system resources as authorized in the IRP Procurement Track Decision (D.19-11-016)
- Requirements for all resource types:

Location

- Resources must be located within the CAISO or dynamically transferred or pseudo tied to CAISO
- EE and DR must be within SDG&E service territory

Resource Adequacy

- Must qualify to contribute to system RA requirements

Incremental

- The resource must be ‘demonstrably incremental’ to the baseline resource assumptions identified for the analysis that led to the adoption of the Preferred System Plan in Decision 19-04-040

Contract Term

- Pursuant to the IRP Procurement Track Decision: minimum (3) three-year contracts for existing resources and (10) ten-year contracts for new
- Energy Efficiency terms must be a minimum of 5-years but no greater than the Effective Useful Life of the EE measure

RFO 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 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

All Resources

- Must be capable of delivering capacity for 4 hours on 3 consecutive days

Energy Efficiency/
Demand Response

- Provide RA value by offering load reduction conforming to RA guidelines

RFO Requirements - General

Conventional and CHP

- Prohibition against new fossil-fuel only facilities at sites which have not previously hosted electric generation
- Repowered and expanded facilities qualify
- Project size: 10 MW to 300 MW

Energy Storage

- As defined by Public Utilities Code Section 2835
- New, repowered or expanded facilities qualify
- Project size: 10 MW to 300 MW

RFO Requirements - General

Hybrid

- New, repowered or expanded facilities qualify
- Project size: 10 MW to 300 MW
- Use Energy Storage offer form
- Include charging source in Project Description

Renewable

- RPS Product Category 1 (bundled products as defined by Public Utilities Code 399.16(b)(1)(A-B))
- New, repowered or expanded facilities qualify
- Project size: 10 MW to 300 MW

RFO Requirements - General

Energy Efficiency

- EE resources will be evaluated based on their ability to deliver Resource Adequacy
- Minimum project size is 5 MW
- Energy Efficiency bids must have a minimum term of five years, per D.19-11-016, OP 10
- Resources must be within SDG&E service territory
- End-of-year annual M&V report will be required and include:
 - The forecasted annual energy savings for the following year based on measures installed at the time of the report
 - The actual annual energy savings for the year just passed

RFO Requirements – General

Demand Response

- Products provide Resource Adequacy benefits to SDG&E
- Minimum project size is 5 MW
- Resource must be dispatchable
- Resources must be within SDG&E service territory
- Fossil-fuel emergency back-up generation resources will not qualify
- Qualifying Capacity estimates will be due at time of bid

https://www.sdge.com/sites/default/files/Qualifying_Capacity_%28QC%29_Assessment_r1.xlsx

RFO Requirements – “Incremental”

Overview

- The IRP Procurement Track Decision, OP 6 , requires that resources be incremental to the baseline resource assumptions identified for 2022 in the analysis that led to the adoption of the Preferred System Plan adopted by the Commission in Decision (D.) 19-04-040
- Baseline list of resources available at CPUC IRP Procurement Track webpage: <https://www.cpuc.ca.gov/General.aspx?id=6442463413>

RFO Requirements – “Incremental”

Energy Efficiency

- Resources must be demonstrably incremental
- Clear and specific definition of program customer segment
- EE measures to be demonstrated as not part of existing programs
- Ensure that customers do not ‘double dip’ (collect incentives under EE Preferred Resources and through another EE Program)
- See SDG&E EE website for information on existing EE programs:

<https://www.sdge.com/businesses/savings-center/energy-management-programs/energy-efficiency-programs>

RFO Requirements – “Incremental”

Demand Response

- SDG&E would not consider bids with resources that are already being subsidized under another CPUC-regulated program or rate schedule.
- Contracted resources may not participate in DRAM solicitations
- Proposals must not overlap with existing DR programs

<https://www.sdge.com/businesses/savings-center/energy-management-programs/demand-response>

RFO Requirements – Offer Limits

A MAXIMUM OF SIX (6) OFFERS PER RESPONDENT WILL BE ACCEPTED.

- Fill out separate offer forms for each offer.
- If the respondent has questions or concerns regarding bid limits, please contact SDG&E at IRPReliabilityRFO@sdge.com and cc the IE at jonathan.jacobs@paconsulting.com

Overview of Bidding Process

Brian Elliott
Energy Supply

RFO Offer Documents Required

Required Documents	Resource Type				
	EE	DR	Renewable	Energy Storage	Conventional / CHP
Offer Form	X	X	X	X	X
Project Description Form	X	X	X	X	X
Electric Interconnection Information	N/A	N/A	X	X	X
Credit Application	X	X	X	X	X
DBE documents	if applicable	if applicable	if applicable	if applicable	if applicable
Pro Forma redline	X	X	N/A	X	TBD
Other	1. Workpaper (s) associated with energy savings profile (EE measures) 2. M&V Plan	N/A	PVSyst Files (Solar only) and fuel resource plan	N/A	TBD

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 IRPReliabilityRFO@sdge.com (please cc the IE) immediately

Instruction Sheet and Form Color Key

Energy Efficiency Products Offer Form

2021-2023 IRP Reliability RFO - Energy Efficiency

San Diego Gas and Electric Company ("SDG&E") is issuing this 2021-2023 IRP Procurement Track RFO to meet the System Capacity Requirement outlined in the 2019 IRP Procurement Track Decision. As part of this requirement, this RFO solicits offers for Incremental Energy Efficiency Resources.

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", "Program Description", and "Capacity and Price" 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
- Please use free-form fields to describe any aspects of your project/program that don't fit exactly within our entry fields

Offer Submission Process

Brian Elliott
Energy Supply

Registration and Logging-on

Ways to Register:

1. Register as a first-time user on www.PowerAdvocate.com

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

https://www.poweradvocate.com/publicRegistration.do?companyKey=NOm%2FdNfGppk%3D&okey=99625&pubEvent=true&locale=en_US

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**

More Information and Help

PowerAdvocate Support

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

Online Help

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

PowerAdvocate®

Dashboard Profile Company **Help** Logout

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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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 RFO Events and Submitting Documents

How to Access the RFO Event from Dashboard:

1. 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

- Credit Form (.doc or .docx)
- Offer Form (.xls or .xlsx)
- Interconnection Documents (.pdf)
- Site Control Documentation (.pdf)

Common mistakes to avoid

- Inconsistent contract terms between worksheets or documents
 - Prices and deliveries should start at the same date as the contract start date. Deliveries and prices should stop in the final contract year. Offer forms for contracts of 10-year terms that only have 5 years of pricing and deliveries, or any other mismatch that is not explained in the offer form, may be declared non-conforming and rejected
- Missing documents
 - Any of the required documents that are not submitted before the RFO closing date could be declared non-conforming
- 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

Common mistakes to avoid

- Adding or renaming worksheets
 - If the bid has multiple options for pricing/COD/deliveries/etc., fill out separate offer 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
- Pricing form data inconsistent with project description form
 - The Project Description Form and the Offer 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 offer forms match the Project Description Form, the bids may be rejected

RFO Evaluation Overview

Dan Wilson
Energy Supply

RFO Evaluation Topics

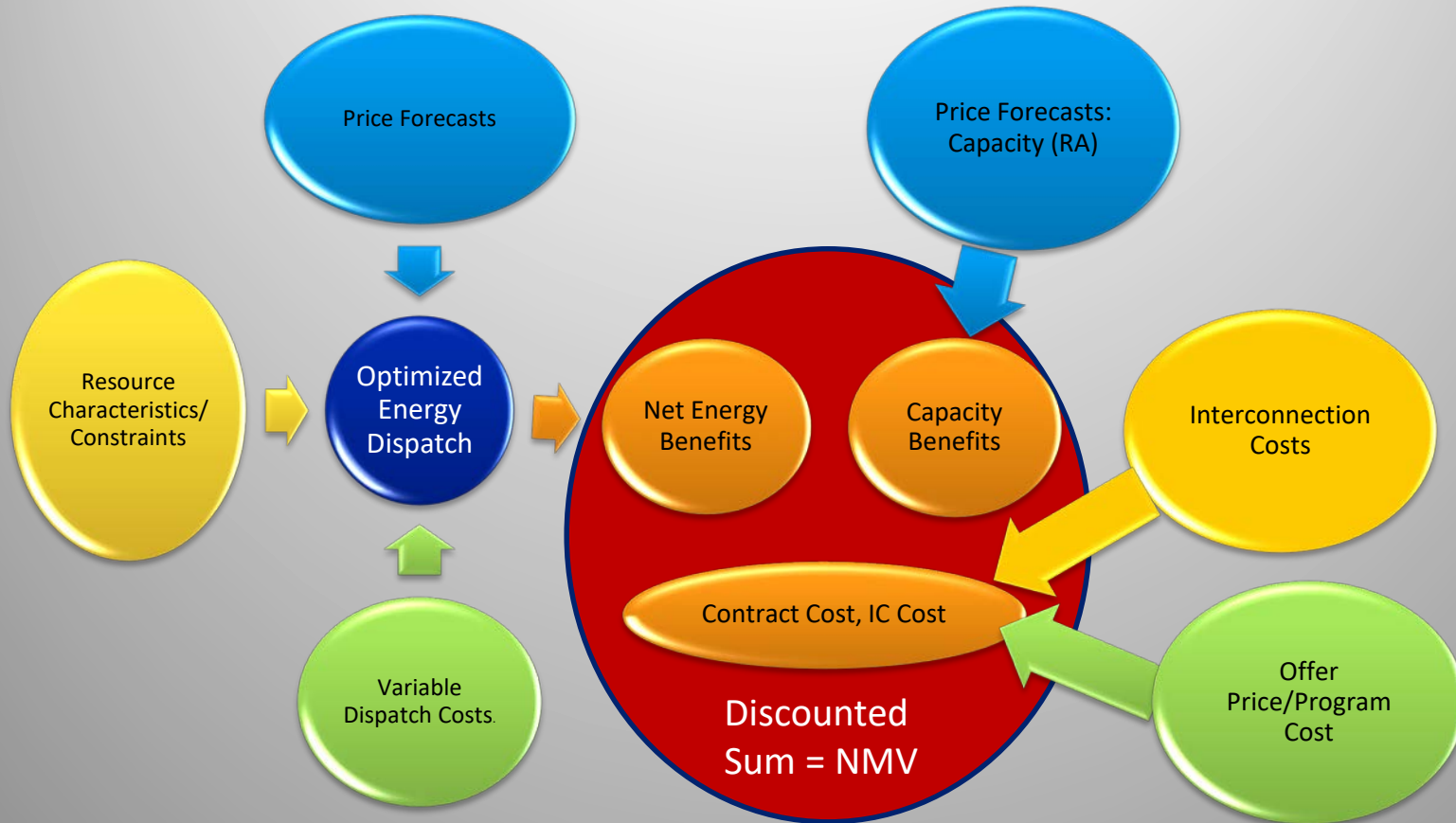
- Valuation and Selection Process
 - Least-Cost/Best-Fit (LCBF)
- Quantitative Evaluation
 - Net Market Value (NMV)
 - Each conforming offer is valued using this discounted cash flow analysis
- Qualitative Evaluation
 - Used to add value or cost to offers based on qualitative criteria (best-fit)
- Shortlisted Offers

Quantitative Valuation Process: NMV

- Net Market Value = Benefits - Costs

Typical Benefits	Typical Costs
Capacity (RA)	Contract Payments
Renewable Integration	Variable Energy Costs (Fuel, VOM, GHG Compliance)
Ancillary Services (A/S) – Spin, Non-Spin, Reg Up, Reg Down	Transmission Interconnection
Energy	

High-Level Overview, Quantitative Valuation Process



For illustrative purposes - Other inputs may be applied

Qualitative Evaluation

Criteria that may be considered in the Qualitative Evaluation:

- Project development status:
 - Electrical interconnection status
 - Site control
 - Permitting status, fuel and water interconnections
- Developer attributes
 - Project financing
 - Development experience
 - Project viability
- Diverse Business Enterprise (“DBE”) status
- Other attributes
 - Non-quantifiable flexibility and curtailment options
 - Portfolio fit (Capacity, energy, term, etc.)
 - Technology risk

Collateral Requirements

Joanne Wang
Energy Risk Management

Collateral Requirements

Shortlist Acceptance Fee: higher of \$100K or \$2/kW * Highest Delivered Capacity

- Pay in 10 business days after shortlisted

Pre-COD collateral requirements are the amount of SDG&E's exposure to Seller's default or non-performance from Effective Date to project COD

- Including potential Development Period Security and Construction Period Security

Collateral requirement during delivery period is based on the potential market exposure that SDG&E may have if Seller defaults or fails to perform

- May vary by product type

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 or letter of credit posted by the Seller

Wholesale Distribution Open Access Tariff (WDAT) and Rule 21 Generator Interconnection Processes

Michael Turner | Customer Generation

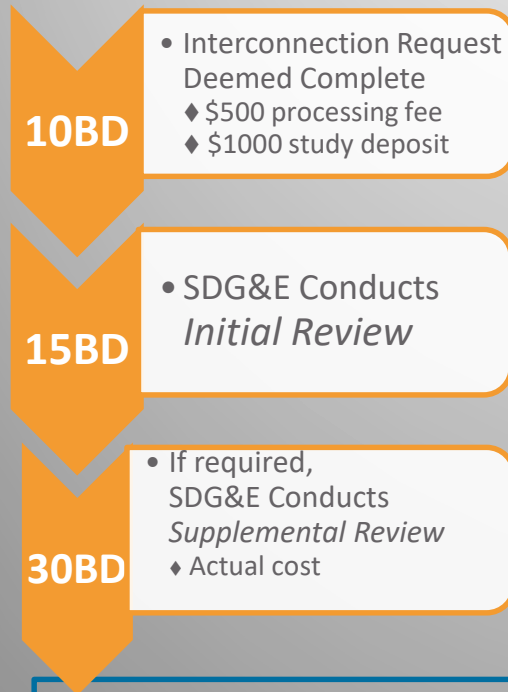
Safety

- Safety is a core value at SDG&E.
- The generator interconnection studies are intended to ensure no adverse impacts to the safety and reliability of the electric grid.
- Generator interconnection customers are expected to comply with all applicable federal, state, and local laws, ordinances and regulations, and to ensure the safety of their employees, SDG&E employees, and the public.

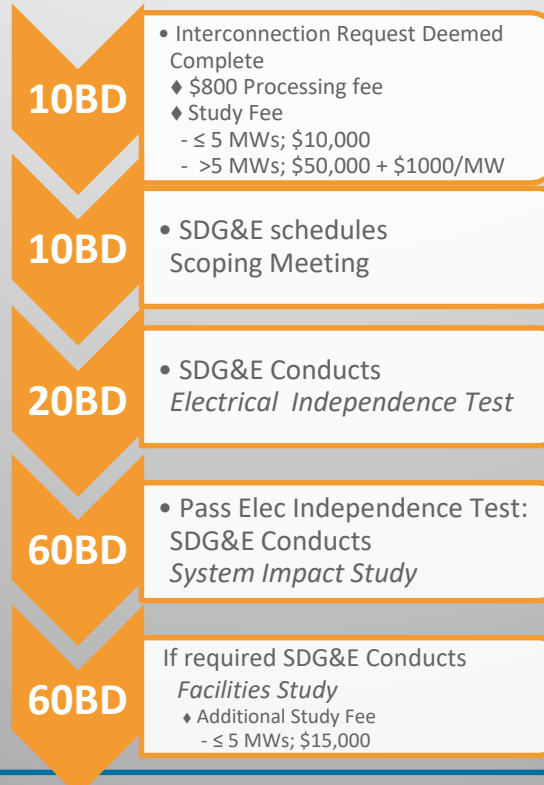
WDAT Flow Charts & Timing

Fast Track

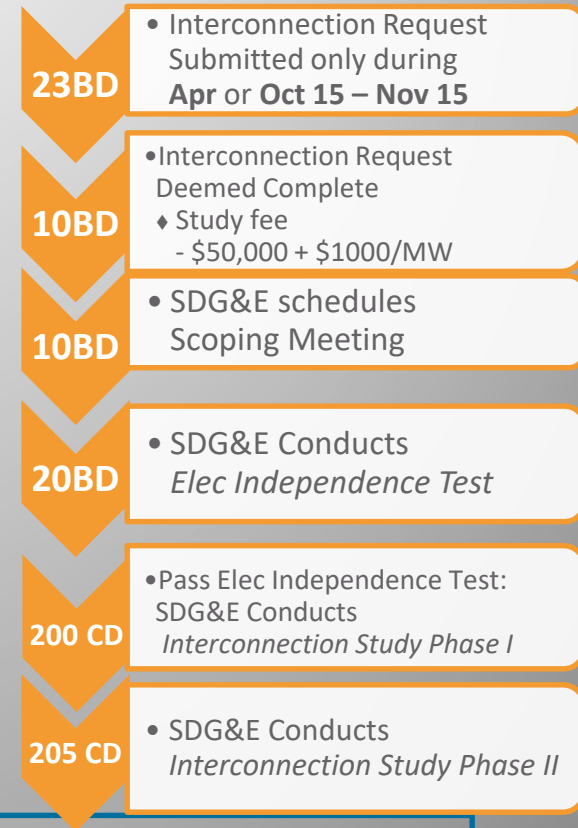
2 MW or less: any location
3 MW or less: 2.5 mi from sub and feeder conductor



Independent Study Process (Deliverability requires CAISO approval)



Cluster Study Process (Deliverability → CAISO approval)



Interconnection Agreement



WDAT Application Form and Location

WDAT tariff: <https://www.sdge.com/node/6991>

The Interconnection Request is located in the WDAT tariff in Appendix 1 on pages 329-345

Send the completed interconnection request to:
[***DGAPPLICATIONS@semprautilities.com***](mailto:DGAPPLICATIONS@semprautilities.com)

Or mail hardcopy application package to:

Customer Generation – CP52F

San Diego Gas & Electric

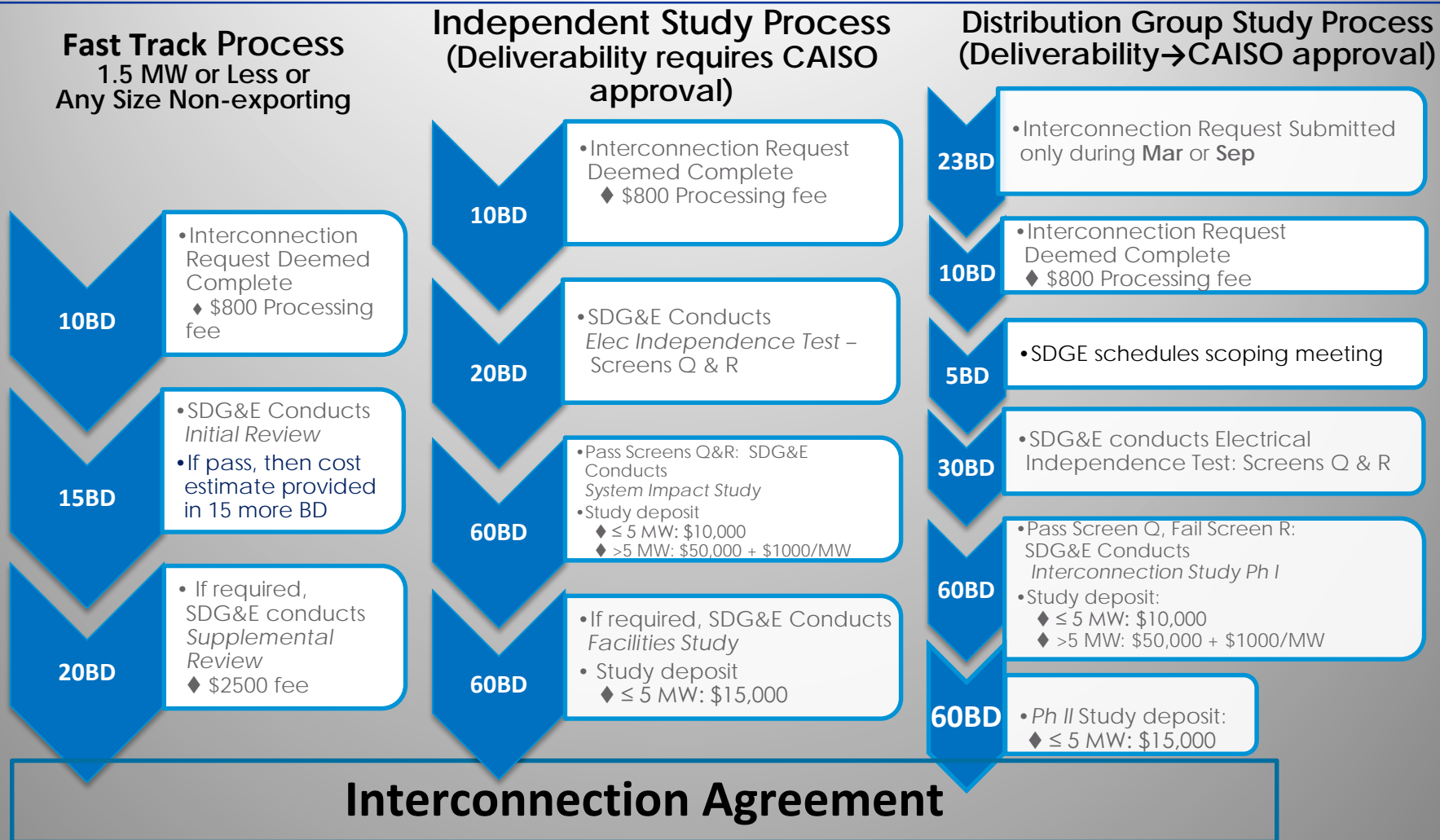
8316 Century Park Court

San Diego, CA 92123-1582

SDG&E will review the interconnection request and provide instructions where to send the application fee.



Rule 21 Study Process Timelines



Rule 21 Application Form and Location

Rule 21 Application Location:

<https://www.sdge.com/more-information/customer-generation/electric-rule-21/apply-rule-21-behind-meter>

Rule 21 Interconnection Package can be submitted to:

DGAPPLICATIONS@semprautilities.com

Or mail hardcopy application package to:

Customer Generation - CP52F

San Diego Gas & Electric

8316 Century Park Court

San Diego, CA 92123-1582

SDG&E will review the interconnection request and provide instructions where to send the application fee.



SDG&E Distribution Interconnection Process

Additional resources listed below are available at www.sdge.com/more-information/customer-generation

- Pre-Application Report (\$300)
- SDG&E WDAT and Rule 21 Interconnection Queue
- WDAT tariff
- Rule 21 tariff
- Interconnection Interactive Map (shows line capacity and available capacity after existing and queued generators)
- Generator Interconnection Handbook

SDG&E Distribution Interconnection Process

Questions:

Ken Parks - Customer Generation Manager

kparks@sdge.com

858-636-5581

Mike Turner - Principal Engineer

mturner@sdge.com

858-654-8326

2020 CAISO Generator Interconnection & Deliverability Allocation Procedures

Darren George
Transmission Planning

CAISO Generator Interconnection and Deliverability Allocation Procedures

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

- CAISO Tariff Appendix Y (GIP tariff) applies to interconnection requests as of 11-27-2018
<http://www.aiso.com/Documents/AppendixY-GIPForInterconnectionRequests-asof-Nov27-2018.pdf#search=appendix%20y>
- CAISO Tariff Appendix DD (GIDAP tariff) applies to interconnection requests as of 8-12-2019
<http://www.aiso.com/Documents/AppendixDD-GeneratorInterconnection-DeliverabilityAllocationProcedures-asof-Aug12-2019.pdf#search=appendix%20dd>
- **Cluster Windows:** As of Cluster 12, April 1st to April 15th of each year.

GIDAP PROCESS

-
- Phase I Interconnection Study
-
- Phase II Interconnection Study
-
- Posting of Financial Security
-
- ❖ Large/Small Generator Interconnection Agreements (LGIA/SGIA)

Phase I Interconnection Study

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

Phase I Interconnection Study

- GIDAP Phase I results provide each project with cost cap for its RNU and LDNU
 - *Retains GIP provisions on security postings*
 - *LDNU cash reimbursement to align with TP deliverability allocation*
- ADNUs
 - *Costs have no cap*

Between Phase I and Phase II Interconnection Studies

- To continue to Phase II, IC must elect either Option (A) or Option (B)
- **Option (A)**
 - *Project requires TP deliverability to continue to commercial operation, also meaning the IC chooses to not fund ADNU(s).*
 - *Project posts security for RNU and LDNU*
- **Option (B)**
 - *Project is willing & able to pay for all Network Upgrades without cash reimbursement by ratepayers*
 - *Project posts security for RNU, LDNU, and ADNU*
 - *ADNU security posting equals \$/MW cost rate determined in Phase I Study, times project MW deliverability*
 - *ADNU no cash reimbursement, treated as merchant transmission, eligible for Congestion Revenue Rights (CRRs)*

Phase II Interconnection Study

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

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

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

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

Generator Interconnection Agreements (LGIA & SGIA)

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

Reimbursement of LDNU postings

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

Generation Interconnection Information

SDG&E Interconnection Website: <https://www.sdge.com/more-information/customer-generation>

- 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

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Intermission/ Question Review

Question Responses

Thank you for attending