Welcome to SDG&E's Spring 2018 Green Tariff Shared Renewables Request for Offers Bidders' Conference

June 1, 2018 | 2:00 pm to 5:00 pm PDT Hosted by Web Event Services





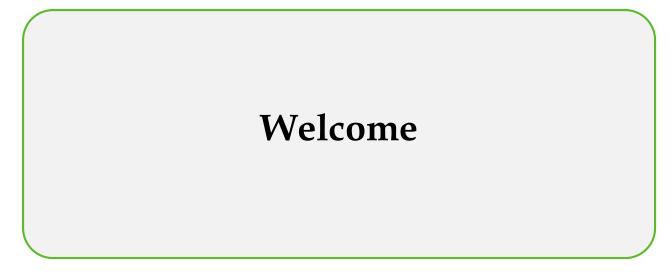
Jennifer Summers | Principal Commercial Energy Policy Advisor



Bidders' Conference Outline

1.	Safety, Welcome and Legal Disclaimer	Jennifer Summers Principal Comm Energy Policy Advisor
	2:00 pm – 2:10 pm	
3.	SDG&E and Supplier Diversity	Steve Taylor E&FP Generation and Supply Manager &
	2:10 pm - 2:15 pm	E&FP Diversity Champion
4.	Role of Independent Evaluator	Harry Judd Independent Evaluator
	2:15 pm – 2:20 pm	
4.	RFO Overview, EcoShare Specifics, and	David Thai Origination Analytics Manager
	Securities Opinion	Mike McConnell Customer Programs Advisor II
	2:20 pm – 2:50 pm	Hollie Bierman Senior Counsel
5.	RFO Scope, Schedule and Evaluation	David Thai Origination Analytics Manager
	2:50 pm - 3:10 pm	
6.	Power Purchase Agreement Overview	Mike Ruzzo Energy Procurement Advisor
	3:10 pm - 3:25 pm	
6.	Bid Submission Process; Q&A	David Thai Origination Analytics Manager
	3:25 pm - 3:45 pm	
7.	Interconnection, Transmission and	Ramsey Ayass Generation Interconnection Lead
	Distribution	Mike Turner Principal Engineer
	3:45 pm - 4:00 pm	





Jennifer Summers | Principal Commercial Energy Policy Advisor



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.

Rejection of Offers:

SDG&E MAKES NO GUARANTEE THAT A CONTRACT AWARD SHALL RESULT FROM THIS RFO EVEN AFTER AN OFFER HAS BEEN SELECTED AS A WINNING BID. SDG&E RESERVES THE RIGHT AT ANY TIME, AT ITS SOLE DISCRETION, TO ABANDON THIS RFO PROCESS, TO CHANGE THE BASIS FOR EVALUATION OF OFFERS, TO TERMINATE FURTHER PARTICIPATION IN THIS PROCESS BY ANY PARTY, TO ACCEPT ANY OFFER OR TO ENTER INTO ANY DEFINITIVE AGREEMENT, TO EVALUATE THE QUALIFICATIONS OF ANY RESPONDENT OR THE TERMS AND CONDITIONS OF ANY OFFER, OR TO REJECT ANY OR ALL OFFERS, ALL WITHOUT NOTICE AND WITHOUT ASSIGNING ANY REASONS AND WITHOUT LIABILITY OF SEMPRA ENERGY, SDG&E, OR ANY OF THEIR SUBSIDIARIES, AFFILIATES, OR REPRESENTATIVES TO ANY RESPONDENT. SDG&E SHALL HAVE NO OBLIGATION TO CONSIDER ANY OFFER.

Document Conflict:

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

Steve Taylor | Generation & Supply Manager



Background on Diverse Business Enterprises (DBE) Program

- SDG&E encourages Women, Minority, Disabled Veteran, Lesbian, Gay, Bisexual and Transgender (LGBT) Business Enterprises ("Diverse Business Enterprises" or "DBE"s) to participate in the Green Tariff Shared Renewables (GTSR) RFO
- General Order (GO) 156
 - GO 156 adopted by the CPUC in 1986, with electric procurement reporting added in 2012
 - Sets rules governing the development of programs to increase participation of DBEs in procurement of contracts from utilities as required by CPUC Code
 - Goal is to promote greater competition among utility suppliers by expanding the available supplier base and to encourage greater economic opportunity for women, minority, service disabled veteran, and LGBT owned businesses historically left out of utility procurement
 - SDG&E encourages developers to utilize DBEs during various stages of project development and construction. SDG&E will require developers to identify and verify their DBE contractors and/or subcontractor spending, if any.



Diverse Supplier Certification and Eligibility

• SDG&E Support of DBE's

- Supplier diversity goals are part of every executives' department goals and are a component of every employee's compensation goals
- 44.6% of SDG&E's goods and services procurement dollars were spent with DBE's in 2017
- \$61 million of our energy procurement dollars were spent with DBE's in 2017
- For certification* and eligibility under GO 156, a DBE firm must meet the following requirements:
 - 1) Must be a business enterprise:
 - a) that is at least 51% owned by a Woman, Minority, Disabled Veteran, or LGBT individual or group(s), or
 - b) if a publicly owned business, at least 51% of the stock of which is owned by one or more DBE individual(s) or group(s), ; and,
 - 2) whose management and daily business operations are controlled by one or more of those DBE owners

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



Diverse Supplier Certification and Eligibility (continued)

- Obtaining Certification*
 - Minority, Woman or LGBT Owned Business
 - California Public Utilities Commission (CPUC) Supplier
 Clearinghouse http://www.thesupplierclearinghouse.com/
 - Service Disabled Veteran Business
 - State of California, General Services Office of Small Business and Disabled Veteran Business Enterprise Services (OSDS) http://www.dgs.ca.gov/pd/Programs/OSDS.aspx
 - Others Offering Certification
 - Regional affiliates of the National Minority Supplier Development Council (NMSDC)
 - 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.



SDG&E Supplier Diversity Team Websites http://www.sempra.com/about/supplier-diversity/ http://www.cpuc.ca.gov/puc/supplierdiversity/

Erica Beal

Diverse Business Enterprise Program Manager

EBeal@semprautilities.com

858-636-5538

Steve Taylor

E&FP DBE Champion / Generation & Supply Manager

SRTaylor@semprautilities.com

858-654-6361



Spring 2018 GTSR RFO Bidders' Conference



Harold Judd | Accion Group



ACCION GROUP (ACCION) is approved by the CPUC as the Independent Evaluator for the RFO.

ACCION was founded in 2001 and has experienced professionals with extensive industry experience in the areas of:

- Evaluation & Dispatch Modeling
- Transmission & Distribution Systems
- Power Plant Construction & Operation
- Risk Analysis
- Legal Services (contracting & contract review)
 - PPA / APSA / Green Field Development / Turnkey Projects

Harry Judd has more than thirty years of experience in regulated industries and emerging markets; His experience includes the following:

- 98 Independent Evaluator engagements over the previous ten years
- Consultant providing crucial guidance to major clients including BPA, PGE, SCE, the Colorado Public Utilities Commission, the Georgia Public Service Commission, and Tucson Electric.



Bid Conformance

- *IE's role in the ECR RAM RFO:*
 - Monitor the Standards of Conduct to
 - Ensure equal treatment of all bids
 - Set separation of the Company's Evaluation Team & Bidders
 - Support clear & consistent Communication & Messaging
 - Create confidence in the Market regarding the Process
 - Review Draft Documents & Process before PUC Filing
 - Provide Independent Contact for Bidders
 - Inform PUC of status, complaints & issues
- Bids should comply with all the requirements of the RFO
 - Any bids that are rejected because of conformance issues will be discussed with the IE
 - Any bids that are accepted that may have minor conformance issues will also be discussed with the IE
 - The goal is to ensure all bidders are treated in a fair manner





David Thai | Origination Analytics Manager



- SDG&E is committed to the State's RPS goals and to continue to be compliant with RPS regulations.
- SDG&E worked together with the CPUC and other IOUs to develop a successful auction process. We have tried to incorporate lessons learned from the prior RAM RFOs and will continue to watch closely and learn from these solicitations.
- SDG&E is issuing this auction-style RFO for the purpose of implementing its Green Tariff Shared Renewables Programs:
 - EcoShare <u>http://www.sdge.com/environment/connected-to-the-sun/ecoshare</u>
 - EcoChoice <u>http://www.sdge.com/environment/connected-to-the-sun/ecochoice</u>
- Assessment and selection transparency is paramount to us. Our Independent Evaluator, Harry Judd, will be involved in every step of the process.



General Q&A Guidance

- SDG&E will post questions and answers on the solicitation website at: <u>http://www.sdge.com/procurement/Spring2018GTSRRFO</u>
- Questions can be submitted to either:
 - <u>ECRRAMSolicitation@semprautilities.com (EcoShare)</u>
 - <u>RAMSolicitation@semprautilities.com (EcoChoice)</u>
- Respondents <u>MUST</u> copy the IE on all communications
- Questions received and answers will be posted to the website periodically
- Deadline to submit questions is **June 21**
- Offers are due by **July 6**



Enhanced Community Renewables Customer Participation and Marketing Requirements

Mike McConnell | Customer Programs Advisor II



Marketing Materials

• Developer must have marketing materials successfully reviewed by SDG&E prior to submitting a bid into the EcoShare solicitation.

Community Interest:

• EcoShare applicant must demonstrate fulfillment of its Community interest requirement within 60 days of acceptance of shortlist position.



Marketing Requirements

- Developers are responsible for marketing their ECR project and recruiting interested customers
- All marketing materials produced by participating developers must:
 - Be reviewed by SDG&E prior to use or publication
 - Comply with SDG&E's branding guidelines
 - Comply with all Green-e Energy communications guidelines and requirements
- Please allow 30 days for the marketing review process
- Evidence of SDG&E marketing material review is required <u>prior to</u> <u>submitting a bid into the ECR solicitation</u>
- References:
 - Submit marketing materials to <u>CTTS@sdge.com</u>
 - Marketing requirements are outlined at: <u>http://www.sdge.com/developer-marketing-requirements-and-review-process</u>



Community Interest

- Bidders will have 60 days from the date of acceptance of shortlist position to fulfill the ECR community interest requirements
 - If community interest requirements are not met, the awarded capacity will be assigned to the next highest ranking least-cost best-fit (LCBF) ECR project in the solicitation
 - "Community" is defined as customers living within 10 miles of the project site, or within the same municipality or county as the project site
 - After the PPA is executed, customers can come from anywhere within SDG&E's service territory
- Interest Type 1 Expression of Interest: A signed document or submission of an online form using digital e-signature technology is required for each customer indicating interest in the project. Information required in the document includes customer name, service address, and subscription amount.
- Interest Type 2 Commitment to Enroll: requires the same information as an expression of interest, and also requires that the SDG&E service account number for the customer be provided.



Community Interest - 2

- To satisfy the community interest requirement:
 - Residents or businesses meeting the applicable location requirements must have **committed to enroll in at least 30**% of the facility's capacity, or have provided **expressions of interest in the project sufficient to reach 51**% of the proposed facility's capacity.
 - Customers providing community interest must meet all eligibility requirements outlined in <u>Schedule ECR</u>.
 - At least three (3) individual customers must have committed to enroll or provided the necessary expressions of interest. This requirement increases with project size (i.e. a 20 MW project would require commitments to enroll or expressions of interest from at least 20 individual customers).
 - At least 50% (by number of customers) and at least 1/6th (by load) of the demonstrated community interest in the project must come from residential customers.
 - A guarantee of subscription levels from a third-party institutional customer, such as a municipality working to develop an ECR Project in its community, satisfies the community interest requirement.
- More information, including applicable forms, is available at <u>http://www.sdge.com/environment/ecoshare-for-developers</u>



Securities Opinion

Hollie Bierman | Senior Counsel



Securities Opinion:

Prior to or upon the Execution Date, Seller shall deliver to Buyer an original legal • opinion, in form and substance acceptable to Buyer, and addressed to Buyer. The legal opinion shall state that the transactions between the Customers and Seller: either (x) do not involve the offer or sale of "securities" under California or federal law, or, (y) to the extent that such transactions involve the offer or sale of securities under California or federal law, the transactions (i) involve the offer or sale of securities that are registered under federal securities law and exempt from qualification under California securities law, (ii) involve the offer or sale of securities that are registered under federal securities law and are qualified under California securities law, (iii) involve the offer or sale of securities that are exempt from registration under federal securities law and are qualified under California securities law, or (iv) involve the offer or sale of securities exempt from registration under federal securities law and exempt from qualification under California securities law, as applicable. The legal opinion may not contain any exceptions or qualifications unacceptable to Buyer in its reasonable discretion. The Seller must submit to Buyer an attestation from an officer of Seller that the fact certificate provided by an officer of the Seller to the law firm issuing the legal opinion is true and complete and that Seller's business model with Customers is, and throughout the Delivery Term will be, as described in the legal opinion.



Securities Opinion Req'm:

- (i) The lawyer primarily responsible for the issuance of the opinion has, within the last eight (8) years, practiced federal and California securities law as a significant portion of their practice (meaning at least five (5) full time years), and such experience included registering or qualifying offerings or sales of securities, effecting private placements of securities, and/or advising issuers or sellers of securities with respect to exemptions from qualification and registration requirements;
- (ii) The lawyer primarily responsible for issuance of the opinion is licensed to practice law in California and the lawyer's license is active and not under suspension; and
- (iii) The law firm issuing the opinion carries a minimum of \$10 million in professional liability insurance coverage that includes coverage for securities practice.



Overview of Schedule, Product, Procurement Targets and Eligibility Requirements

David H. Thai | Origination Analytics Manager



Green Tariff Shared Renewables Program

• Program was passed into law by Senate Bill 43 and implemented by the CPUC in D.15-01-051 and D.16-05-006

GTSR program is intended to:

- Make clean, renewable energy available to bundled utility customers, whether or not they own a home and/or can afford a significant capital investment;
- Increase the overall volume of renewable energy in the San Diego area; and
- Increase options for institutional, commercial and residential customers to meet their renewable energy goals.

Solicitation Targets

- 0.5 16 MW for EcoShare
- 0.5 29 MW for EcoChoice
- 0.5 10 MW for Environmental Justice (EJ) projects. Can be either EcoShare or EcoChoice



RFO Schedule / PPA Execution and Approval

EcoShare Schedule

EcoChoice Schedule

NO.	ITEM	DATE	NO.	ITEM	DATE		
1.	RFO Issued and SDG&E Begins Accepting Bids	May 25, 2018	1.	RFO Issued and SDG&E Begins Accepting Bids	May 25, 2018		
2.	Bidder's Conference; 2:00 PM to 5:00 PM	June 1, 2018	2.	Bidder's Conference; 2:00 PM to 5:00 PM	June 1, 2018		
3.	DEADLINE TO SUBMIT QUESTIONS	June 21, 2018	3.	DEADLINE TO SUBMIT QUESTIONS	June 21, 2018		
4.	Answers to all questions will be posted on SDG&E's website	June 29, 2018	4.	Answers to all questions will be posted on SDG&E's website	June 29, 2018		
5.	DEADLINE TO SUBMIT OFFERS/CLOSING DATE Offers must be uploaded to PowerAdvocate® by no later than 12 P.M. (i.e. NOON) Pacific Daylight Time	July 6, 2018	5.	DEADLINE TO SUBMIT OFFERS/CLOSING DATE Offers must be uploaded to PowerAdvocate® by no later than 12 P.M. (i.e. NOON) Pacific Daylight Time	July 6, 2018		
6.	NOTIFICATION TO SHORTLISTED and CONTINGENT BIDDERS	August 22, 2018	6.	NOTIFICATION TO SHORTLISTED AND CONTINGENT BIDDERS	August 22, 2018		
7.	 SHORTLISTED BIDDERS ACCEPTANCE/WITHDRAWAL LETTER due from Bidders indicating: a) Withdrawal from SDG&E's solicitation; OR b) Acceptance of position on shortlist; withdrawal from participating in any other solicitation and evidence of withdrawal notice to all other solicitors 	August 29, 2018	7.	 SHORTLISTED BIDDERS ACCEPTANCE/WITHDRAWAL LETTER due from Bidders indicating: a) Withdrawal from SDG&E's solicitation; OR b) Acceptance of position on shortlist; withdrawal from participating in any other solicitation and evidence of withdrawal notice to all other solicitors 	August 29, 2018		
8.	Deadline for shortlisted and contingent bidders to demonstrate fulfillment of customer participation requirements (60 days from Bidder's acceptance)	October 29, 2018	8.	SDG&E issues appreciation notices to unsuccessful Respondents	September 10, 2018		
9.	SDG&E issues appreciation notices to unsuccessful Respondents	October 29, 2018	9. 10.	Execute PPAs SDG&E submits Tier 2 Advice Letter with PPAs to CPUC for	September 10, 2018 September 10,		
10.	Execute PPAs	December 3, 2018		approval Anticipated CPUC approval	2018 November 13,		
11.	SDG&E submits Tier 2 Advice Letter with PPAs to CPUC for approval	December 3, 2018	11.		2018		
12.	Anticipated CPUC approval	January 30, 2019	*Note: SDG&E has no control over CPUC approval, these date are approximate				



Eligibility Requirements

Resource:

- Resources must be CEC-certifiable as an eligible renewable resource;
- Resources must utilize a commercially proven technology;
- Resources must be new facilities;
- Resources must be located in SDG&E service territory or the Imperial Valley
- Resources must sell entire output to SDG&E (full buy/sell) or all output in excess of onsite load to SDG&E (excess sales);
- Project shall comply with the CARB's Voluntary Renewable Electricity (VRE) Program
- Project must meet Green-e[©] Energy eligibility criteria throughout the Delivery Term of the ECR PPA
- To qualify as an Environmental Justice project, the generating facility must be located in one of the census tracts listed on SDG&E's website

Project Capacity:

- Resources must be a minimum of 500 kW and a maximum of 20 MW installed nameplate capacity
- ECR-EJ Resources must be a minimum of 500 kW and a maximum of 1MW installed nameplate capacity
- All capacity ratings specified in this RFO must be nameplate capacities for **alternating current** ("**ac**") generation as provided to the bulk power transmission or distribution system unless otherwise noted.



Location/Site Control:

- Projects must be located within the service territory of SDG&E or located in the Imperial Valley and either directly connected or dynamically transferred via pseudo-tie into SDG&E's service territory at the Imperial Valley substation by the CAISO
- The Respondent must demonstrate, at time of bidding, the ability to provide full site control for the duration of the 10, 15, or 20-year power purchase agreement, as applicable, evidenced by documentation of:
 - Direct ownership
 - o Lease
 - Option to lease or purchase upon PPA approval. The option must be an exclusive option to the Bidder effective until the completion of the RFO cycle.

Note: If shortlisted, Respondent's interconnection documents must be: 1) in the name of the same entity that will execute the ECR PPA, or 2) shall have been assigned to such entity by the time Respondent accepts its position on the shortlist.



Interconnection:

- Respondents must: (i) have a completed Phase II interconnection study, or have an interconnection agreement; and (ii) provide a copy of the most recent completed Phase II study or interconnection agreement must be included in the offer.
- For projects dynamically transferred via pseudo-tie into SDG&E's service territory, Respondents must: (i) provide a completed Phase II interconnection study or interconnection agreement, and (ii) provide documentation certifying the existence of dynamic transfer arrangements with a sufficient level of detail for SDG&E to determine conformance with Category 1 content specifications, RFO requirements, and to ensure that the dynamic transfer arrangement conforms with all other California state laws and decisions issued by the California Public Utilities Commission, the California Energy Commission, and any other regulatory authorities with jurisdiction over utility procurement in California.

Note: If shortlisted, Respondent's interconnection documents must be: 1) in the name of the same entity that will execute the ECR PPA, or 2) shall have been assigned to such entity by the time Respondent accepts its position on the shortlist.



Developer Experience:

- The Respondent and/or members of the project development team must have experience. Respondents must provide evidence of having completed, or begun construction, of a project using a technology similar to the offered technology, that is at least 500 kW nameplate capacity.
- The Respondent will maintain contractual control of the facilities and be responsible for development, land acquisition, permitting, financing and construction for the facilities. Respondents must provide a description of how operational control will be maintained.

Project Start Date:

• Offers must provide an anticipated delivery start date that is **within 36 months after final and non-appealable CPUC approval** of the PPA.

Other Incentives Not Permitted:

• Respondents shall not have sought Small Generator Incentive Program (SGIP) benefits, California Solar Incentives (CSI) or Net Energy Metering (NEM) Program benefits for the projects being offered and shall not plan to seek or participate in such programs for the entire term of the PPA.



Overview of the ECR Offer Evaluation Process

David H. Thai | Origination Analytics Manager



Evaluation process for the ECR RAM RFO

Once the bids are received and the relevant data is identified and extracted to a database, the evaluation process for the RFO will consist of the following steps:

- 1. Screen the bids for conformance with the eligibility requirements
- 2. Analyze the bids using SDG&E's Least-Cost / Best-Fit (LCBF) evaluation methodology to create an initial quantitative ranking, and a subsequent final ranking which may modify the initial ranking based on qualitative criteria
- 3. Select shortlisted bids for projects based on the final ranking



Pricing Options - FCDS or Energy Only

Full Capacity Deliverability Status (FCDS):

- 1. FCDS projects are capable of providing resource adequacy, and generally have a higher value than energy-only projects.
- 2. Projects which are located in SDG&E's local area are capable of providing local resource adequacy under CPUC and CAISO resource adequacy programs. Projects outside of SDG&E's local area are capable of providing system resource adequacy, which is less valuable than local resource adequacy.
- 3. FCDS projects capable of providing local resource adequacy are valued higher than FCDS projects capable of providing system resource adequacy.
- 4. FCDS projects must commit to achieve FCDS as close to COD as possible, but no later than the end of 2028.
- 5. Bidders may submit flat offers or seasonal offers, but seasonal offers will be multiplied by the FCDS TOD factors as shown below for deliveries in each TOD period:

FCDS TIME OF DAY PRICE MULTIPLIERS							
Location	Summer On-Peak	Summer- Semi-Peak	Summer Off-Peak	Winter On- Peak	Winter Semi-Peak	Winter Off- Peak	
Local	1.943	0.819	0.963	2.638	0.541	0.823	



Energy-Only Status:

- 1. All renewable resources are valued based upon their ability to displace other forms of generation. Projects which cannot provide resource adequacy are unable to displace a capacity-related attribute provided by other forms of generation, and may require SDG&E to procure additional resource adequacy to make up for the shortfall.
- 2. Bidders may submit flat offers or seasonal offers, but seasonal offers will be multiplied by the FCDS TOD factors as shown below for deliveries in each TOD period:

ENERGY ONLY TIME OF DAY PRICE MULTIPLIERS							
Summer On-Peak	Summer- Semi- Peak	Summer Off-Peak	Winter On-Peak	Winter Semi- Peak	Winter Off-Peak		
1.714	0.758	0.971	2.641	0.562	0.864		



LCBF Overview

- 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





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



Transmission Adder

- 1. Transmission costs from a project's latest transmission study will be used to calculate a transmission adder that will be applied to the project's Bid Ranking Price.
- 2. Only transmission costs <u>that are reimbursable to the bidder</u> will be used to compute the transmission adder. Amounts paid by the bidder for distribution interconnections and transmission-level upgrades that are not reimbursed will not be used in calculating the transmission adder. Those should be included in the respondents bid price.
- 3. In all cases, the reimbursable costs shown in the transmission studies submitted by the bidder will be used for adder computation.



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
- Other attributes
 - Contribution to other procurement targets (CHP, RPS, Energy Storage)
 - Portfolio fit
 - Technology risk
 - Proximity to High Hazard Fuel Zone and ability to exceed the minimum fuel requirements from these zones
 - Start Date and Term, SDG&E has a preference for smaller projects and projects that can come online as soon as possible



Power Purchase Agreement Overview

Mike Ruzzo | Energy Procurement Advisor



Standard PPA Terms - Applicable to GTSR Programs

Term	Description
Contract Document	SDG&E non-modifiable, standard RAM Power Purchase Agreement (PPA)
Contract Duration	• 10, 15, or 20 contract years
Product Type	Baseload or as-available intermittent resources
Commercial Operation Deadline	 Must achieve Commercial Operation within 36 months of CPUC approval. One, 6 month extension allowed for certain delays related to permitting, interconnection or force majeure, in the aggregate
Performance Security	 <u>CPUC Approval Security (Execution to CPUC Approval</u>): The greater of \$100,000 or \$2.50/MWh multiplied by 2 times expected annual generation <u>Development Period Security (CPUC Approval to CP Satisfaction Date</u>): \$5.00/MWh multiplied by 2 times expected annual generation <u>Construction Period Security (CP Satisfaction Date to COD</u>): \$10.00/MWh multiplied by 2 times expected annual generation <u>Delivery Term Security (COD to End of Term</u>): \$20.00/MWh multiplied by 2 times expected annual generation



Standard PPA Terms - Applicable to GTSR Programs

Term	Description
Energy Price Adjustments	 Deliveries exceeding the Contract Capacity in each hour are paid \$0/MWh, and Seller is responsible for negative real-time LMP in any settlement interval Energy deliveries exceeding 115% of expected annual Contract Quantity and 115% of the TOD Delivery Cap in any period are paid 0% of the energy price for excess energy, and Seller is responsible for negative LMP for the remainder of the period
Guaranteed Deliveries	 Minimum annual net energy production: 90% for baseload projects, based on sum of one-year rolling production 80% for peaking projects, based on sum of two-year of rolling production
Economic Curtailment	 SDG&E shall curtail energy deliveries from the project for the economic purposes Seller is be paid for amounts the project is deemed to have been able to deliver
Resource Adequacy/Full Capacity Deliverability Status	 Seller must apply for deliverability as soon as possible (but not required as part of bid) if bidder is selecting FCDS pricing. Seller must receive FINAL deliverability studies (e.g. Final Phase II deliverability studies) FCDS is not a condition precedent to commercial operation For FCDS projects, the PPA TOD factors include the value of FCDS. The TOD adjusted price will be reduced by a Deliverability Value until the project achieves FCDS. Once the project achieves FCDS, the Deliverability Value will be added back to the TOD-adjusted price. FCDS projects must achieve FCDS by no later than Jan. 1, 2028 For Energy Only projects, the PPA TOD factors do not include the value of FCDS



PPA Terms Specific to the EcoShare Program

Term	Description
Documents	 EcoShare PPA documents consist of the non-modifiable standard RAM PPA, <u>and</u> either a PPA Rider for EcoShare <u>or</u> EcoShare for DERP participation
Minimum Subscription Requirement	 1st Contract Year: 50% of Project's Contract Capacity 2nd Contract Year: 75% of Project's Contract Capacity 3rd Contract Year: 95% of Project's Contract Capacity Remaining Years: 95% of Project's Contract Capacity * A five percent (5%) margin is reasonable to account for Subscription changes in the normal course of business if the Project is below the Minimum Subscription Requirement.
Energy Payments	 Seller to be reimbursed by Customers who are Subscribed to the Project Capacity (Subscribed Capacity) When Unsubscribed Capacity is above the Minimum Subscription Requirement, Seller is paid Contract Price for deliveries from Unsubscribed Capacity, adjusted by TOD Factors based on when energy is delivered When Unsubscribed Capacity is below the Minimum Subscription Requirement, Seller is paid for deliveries from Unsubscribed Capacity the lesser of (i) the TOD- adjusted Contract Price and (ii) the DLAP Price, as determined by CAISO, plus the REC Price which currently is \$10/MWh pursuant to D.16-05-066, as may be amended from time to time.
Customer-Seller Agreement (CSA)	 Between Customer and Seller for Customer Subscription to Seller's Facility. Buyer shall not be a party to, and is prohibited from requesting pricing information contained in, the CSA



Overview of Bidding Protocols

David H. Thai | Origination Analytics Manager



Required Bid Forms

- *Offer Form* There is no limit on the number of Forms that can be submitted. Therefore, respondents are encouraged, but not required, to submit additional offers for our consideration with shorter tenors or with escalators.
- Interconnection Agreement or Phase II Interconnection Study (or distribution level equivalent) and / or Fast Track Documentation – Submit a copy of the most recent completed interconnection agreement, Phase II interconnection study or equivalent Fast Track documentation. For Projects located in Imperial Valley and dynamically transferred via pseudo-tie into SDG&E's service territory by the CAISO, submit copies of a completed Phase II interconnection study and provide documentation certifying the existence of the dynamic transfer arrangements.
- *Site Control Documentation Submit copies of site control documents demonstrating: a) direct ownership; b) a lease; or c) an option to lease or purchase upon PPA approval (must be an exclusive option to the Bidder that will last until the completion of the RFO cycle).*
- *Site Maps – Submit copies of all project maps showing location, facilities, layout, Interconnection, etc. and the Project single line diagram.*
- Resource Report please submit a verifiable fuel resource plan
- *Full PVSyst Model (Solar Only)* the full PVSyst file must be submitted by exporting the entire project that contains the prj, met, inv, pan, etc. files.

**The Pricing Forms must be in Excel or Excel-compatible format (not in PDF). Copies of the completed interconnection agreement, interconnection study and site control documentation must be in PDF format.*



www.sdge.com/procurement/Spring2018GTSRRFO



- Critical information missing
- Entering information incorrectly: i.e. prices in cents/kWh and deliveries in kWh instead of \$/MWh and MWh
- Adding or renaming worksheets
- Making the utility fill out your bid form
- SDG&E reserves the right to request clarification on any aspect of a bid, which will not be an opportunity to re-price



Bid Submission Process

David H. Thai | Origination Analytics Manager



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 <u>www.PowerAdvocate.com</u>
 - 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: *	RAMSolicitation@semprautilities.com			
Name of that individual's company: *	San Diego Gas & Electric			
Name or description of the Event: *	78719 : SDGE 2018 Spring GTSR Solicitation			

3. Request for access using the PowerAdvocate® link located at: https://www.poweradvocate.com/pR.do?okey=78719&pubEvent=true

How to Log On:

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



What information is displayed on my Dashboard?

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



Power Advocate, Inc. CONFIDENTIAL

DewerAdvocate



Spring 2018 GTSR RFO Bidders' Conference

PowerAdvocate Support

- <u>Support@poweradvocate.com</u>
- (857) 453-5800

Online Help

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

DowerAdvocate®					Dashboard	l Profile C	Company Hel	p Logout
Event Dashboard						Fill-	In Data Sheets	
Event	Msg	Open	Close	Download Documents	Upload Documents	Commercial	Technical	Pricing
35697 : 2013 SDGE Energy RFP Sempra Energy		05/02/13 5:00 PM EDT	05/14/13 4:00 PM EDT	1	2	3	4	5

Copyright 2001-2013 Power Advocate, Inc. All rights reserved.
 Terms of Use



Spring 2018 GTSR RFO Bidders' Conference

Please submit your questions by June 29th



2018 CAISO Generator Interconnection & Deliverability Allocation Procedures (GIDAP)

Ramsey Ayass | Generation Interconnection Team Lead



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

• **Cluster Windows:** April 1 – April 30 of each year (If any date is not a Business Day, then the applicable date shall be the next Business Day.)

GIDAP PROCESS

- Interconnection Request (IR)
- Scoping Meeting
- Project Grouping
- Phase I Interconnection Study
- Phase II Interconnection Study
- Posting of Financial Security
- ✤ Large/Small Generator Interconnection Agreements (LGIA/SGIA)

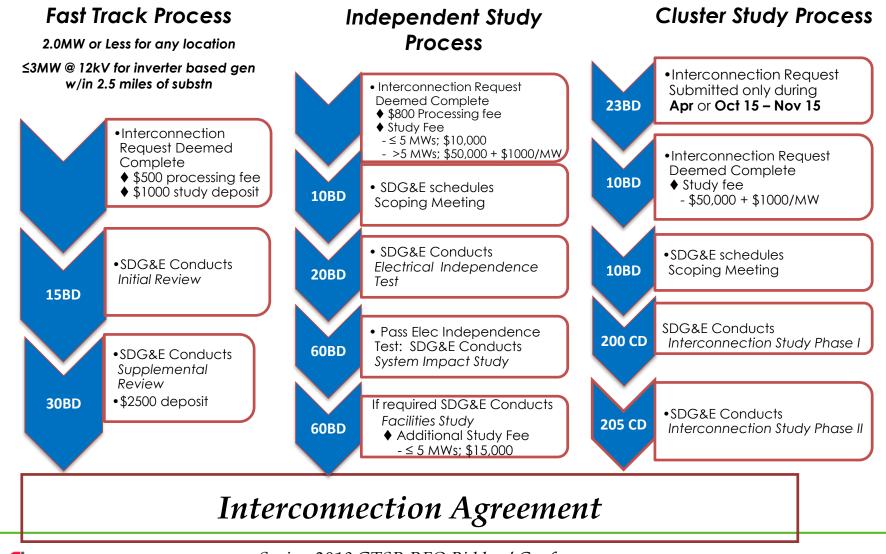


SDG&E Interconnection Procedures to Connect to the Electric Distribution System

Mike Turner | Customer Generation



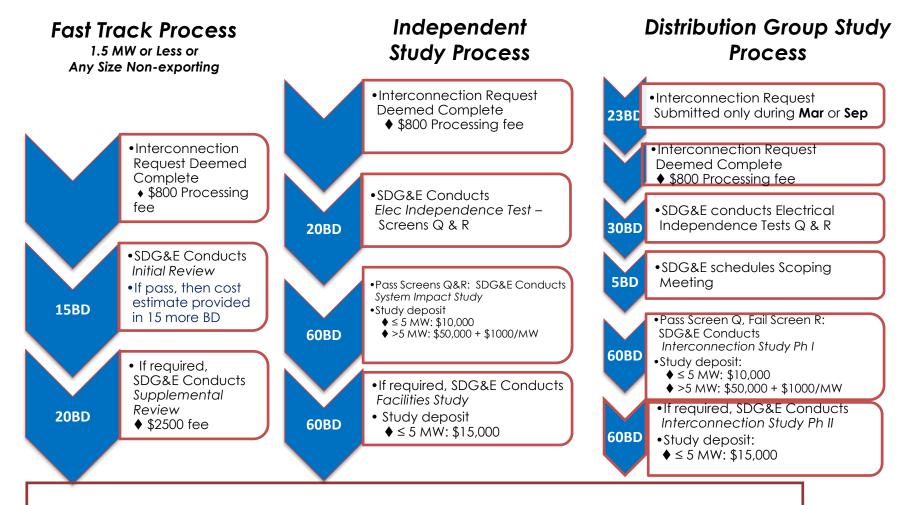
WDAT Study Process Timelines



SDGE

Spring 2018 GTSR RFO Bidders' Conference

Rule 21 Study Process Timelines



Interconnection Agreement

Spring 2018 GTSR RFO Bidders' Conference









SDG&E Interconnection Procedures to Connect to the Electric Distribution System

Mike Turner | Customer Generation





Distribution Interconnections

- The process to interconnect to SDG&E's distribution system is managed by the Customer Generation group in the Transmission & Distribution Engineering Department
- SDG&E's nominal distribution voltage is 12kV with limited 12.47 kV and 4 kV
- All Applications must be submitted to SDG&E's Customer Generation group
- Two application processes:
 - WDAT Wholesale Distribution Open Access Tariff (FERC)
 - Rule 21 SDG&E Electric Rule 21 (CPUC)



Application Package (WDAT and Rule 21)

Distribution Interconnection Application Package (for WDAT and Rule 21) Includes:

- Complete Interconnection Request
- Site Control Evidence
- Site Plan Diagram
- Single Line Diagram

An Invoice will be sent to Interconnection Customer (IC) and payment must be made before the application is considered complete:

- WDAT Application Fee: \$1,500
- Rule 21 Application Fee: \$800



WDAT Wholesale Distribution Open Access Tariff (FERC)



WDAT Application Form and Location

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

WDAT Interconnection Package submitted to: *WDATSGIPAPPLICATIONS@semprautilities.com*

Or mail hardcopy application package to: **Customer Generation – CP52F San Diego Gas & Electric 8316 Century Park Court San Diego, CA 92123-1582**

Application fee to be submitted to: *Customer Payment Services – CP61C San Diego Gas & Electric PO Box 129831 San Diego, CA 92112-9831*



WDAT Application Process Timeline: (Fast Track & Study Process)

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

Sec 6.1 Reasonable Efforts

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



WDAT Fast Track Study Process

Fast Track

- Eligibility:
 - i) \leq 2 MW regardless of location on the circuit
 - ii) \leq 3 MW if located on mainline (3 φ and >4/0 or 336) and
 - 2.5 circuit miles from substation
- \$1500 non-refundable fee (\$500 processing + \$1,000 study deposit)
- Must Pass Fast Track Screens in Section 2
 - Initial Review
 - Supplemental Review (if needed) Cost: typically \$2500
- Small Generator Interconnection Agreement (SGIA)



Independent Study Process:

- \$800 non-refundable interconnection fee + study deposits:
- Eligibility: Pass Electrical Independence Test
- System Impact Study:
 - ≤5 MW: \$10,000
 - >5MW: \$50,000 and \$1000/MW
- Facilities Study: \$15,000
- Follow Study Process in WDAT Section 3
- Small Generator Interconnection Agreement (SGIA)



Cluster Study Process - approximately 18 months

- Generator Project (≤20MW) grouped in a cluster with other projects
- 2 Application Windows:
 - April 1-30
 - October 15 November 15
- Follow Study Process in Section 4
- Study deposit: \$50,000 + \$1,000/MW
- Small Generator Interconnection Agreement (SGIA)



Study	Timing	Study Procedures	Study Deposit
System Impact Study	60 BD	 Dynamic Analyses Updated Interconnection Cost estimates 	≤ 5 MW: \$10,000 > 5 MW: \$50,000 + \$1000/MW
Facilities Study	45/60 BD	 Electrical switching configuration Cost of equipment, engineering, procurement and construction work Time required to complete construction and interconnect Final Interconnection Cost estimates 	≤ 5 MW: \$15,000 > 5 MW: \$50,000 + \$1000/MW



Study	Timing	Study Procedures	Study Deposit
Phase I (Start June 1)	200 CD	 Dynamic Analyses Updated Interconnection Cost estimates 	\$50,000 + \$1,000/MW
Phase II (Start May 1)	205 CD	 Electrical switching configuration Cost of equipment, engineering, procurement and construction work Time required to complete construction and interconnect Final Interconnection Cost estimates 	



Process	Duration	Responsible Party
Following the Facilities Study/Phase II	30 CD	SDG&E
•IC executes SGIA; or •IC fails to execute SGIA; or		Interconnection Customer (IC)
•IC has not requested to file unexecuted SGIA; or	120 CD	SDG&E
•IC has not initiated Dispute Resolution; + Interconnection Request Deemed Withdrawn		SDG&E & IC



Rule 21 SDG&E Electric Rule 21 Generator Facility Interconnections (CPUC)



Rule 21 Application Form and Location

Rule 21 Application Location:

http://regarchive.sdge.com/tm2/pdf/ELEC_ELEC-SF_142-05203.pdf

WDAT Interconnection Package submitted to: <u>DGAPPLICATIONS@semprautilities.com</u>

Or mail hardcopy application package to: *Customer Generation – CP52F San Diego Gas & Electric* 8316 Century Park Court *San Diego, CA 92123-1582* **Application fee to be submitted to:** *Customer Payment Services – CP61C San Diego Gas & Electric PO Box 129831 San Diego, CA 92112-9831*



Rule 21 Fast Track Study Process

- Size limit: ≤1.5 MW; \$800 application fee
- Initial Review (13 screens) 15 BD from receipt of valid application package
 - Pass Initial Review:
 - Identify upgrades/interconnection facilities
 - Prepare cost estimate
 - Draft Generator Interconnection Agreement (GIA)
 - Fail Initial Review:
 - Request Supplemental Review or Detailed Study
 - Withdraw IR
- Supplemental Review (3 additional screens) 20 BD from receipt of additional 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



Applicability

Size:

- >1.5 MWs and \leq 5 MW: \$10,000 study deposit
- > 5 MW: \$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



Independent Study Process

Interconnection System Impact Study

- Scoping Meeting Scheduled (5 BD after passing Screens Q & R)
- Provide Detailed Study Agreement to Applicant (15 BD)
- Commence SIS from receipt of DSA from Applicant (30 BD)
- Final SIS report (60 BD)
- Schedule Results Meeting if requested by applicant (10 BD from SIS report)
- Tender Draft GIA (if IFS waived) w/in 30 CD after waiving IFS

Interconnection Facilities Study (if required)

- \leq 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 (w/in 30 CD of issuing IFS)



Distribution Group Study Process

Phase I Interconnection Study

- Application must be submitted during two study windows: <u>March</u> and <u>September</u>
- Scoping Meeting Scheduled (5 BD after Elec. Independence Test)
- Provide Detailed Study Agreement 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 if Phase II study is waived).

Phase II Interconnection Study (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)
- Results meeting upon Applicant request (optional; 5 BD to schedule meeting)
- Tender Draft GIA (30 CD after results meeting)



Additional Resources available at <u>www.sdge.com</u> Go to: CUSTOMER GENERATION in lower right corner

- 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



Questions:

Ken Parks - Customer Generation Manager <u>kparks@semprautilities.com</u> 858-636-5581

Mike Turner - Principal Engineer <u>mturner@semprautilties.com</u> 858-654-8326



2017 CAISO Generator Interconnection & Deliverability Allocation Procedures (GIDAP)

Ramsey Ayass | Generation Interconnection Team Lead



During the Cluster Study Windows, Interconnection Customers (ICs) must submit:

- A completed **Interconnection Request** (IR)
- Provide evidence to demonstrate **Site Exclusivity**
 - Or an additional deposit in lieu of Site Exclusivity is required: \$250K for a Large Generating Facility and \$100K for a Small Generating Facility

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



A completed IR includes:

- IR form
- Point of Interconnection (POI)
- Technical Data (Attachment A, Appendix 1)
- Voltage Level
- Study Deposit \$150,000*
- IC elects deliverability:
 - Full Capacity (FC) Delivery Network Upgrades for deliverability built, if needed, required to qualify for Resource Adequacy (RA) in PPA
 - Partial Deliverability for ____% of electrical output
 - Energy Only (EO) No Delivery Network Upgrades for deliverability built, not qualified for RA
 - *Pending FERC Approval.* Currently, \$50K + \$1K per MW, up to \$250K



- 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.



- *Typically commences July 1st each year Completed and Final Phase I Study report issued by year-end (may be extended)*
- 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 10 Business 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.
- GIDAP Phase I results provide each project with cost cap for its RNU and LDNU
 - *Retains GIP provisions on security postings*
 - LDNU cash reimbursement to align with TP deliverability allocation
- Phase I does not cap project exposure to ADNU costs



Between Phase I and Phase II Interconnection Studies

• To continue to Phase II, IC must elect either Option (A) or Option (B)

• Option (A)

- Project requires TP deliverability to continue to commercial operation
- Project posts security for RNU and LDNU (not for ADNU)
- *Phase II study will not identify any ADNU costs*
- Option to park for a year if not allocated TPD

• Option (B)

- *Project is willing & able to pay for ADNUs 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)



- Typically commences May 1st each year Completed and Final Phase II Study report issued by year-end (may be extended)
- 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

	Network Upgrades •ADNU, LDNU, RNU for B projects •LDNU and RNU for A projects		
Project Size	First Posting (Due 90 days after phase I study complete)	Second Posting (Due 180 days after phase II study complete)	Third Posting (Due at start of construction)
20 MW or less	 Lesser of 15% of phase I study estimated network upgrade costs \$20,000 per MW (but not less than the lesser of \$50,000, or the estimated cost of network upgrades) 	Lesser of \$ I million 30% of lower of phase I or phase II study estimated network upgrade costs (but not less than the lesser of \$100,000, or the estimated cost of the network upgrades)	100% of lower of phase I or phase II study estimated network upgrade costs
Greater than 20MW	Lesser of • \$7.5 million • 15% of Phase I estimated network upgrade costs • \$20,000 per MW (but not less than the lesser of \$500,000, or the estimated cost of network upgrades)	 Lesser of \$15 million 30% of lower of phase I or phase II study estimated network upgrade costs (but not less than the lesser of \$500,000, or the estimated cost of the network upgrades) 	100% of lower of phase I or phase II study estimated network upgrade costs



Generator Interconnection Agreements (LGIA & SGIA)

- Three-party agreement between the CAISO, SDG&E, and IC
- SDG&E to provide Draft GIA to IC no later than the sum of (i) 180 Calendar Days plus estimated time to construct facilities prior to the In-Service Date of the project.
- Negotiations to be completed within 120 Calendar Days of GIA tendering.
- Final GIA to IC within 10 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: <u>http://www.sdge.com/generation-interconnections/overview-generation-interconnections</u>

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

CAISO Generation Interconnection Process Contact:

- Lead Interconnection Specialist : Leslie Feusi (916) 351-2330

Lfeusi@caiso.com

SDG&E Contacts:

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

