



Bidders Conference

**San Diego, CA
January 14, 2015**

SDG&E's 2014 Distribution Reliability/Power Quality RFP



Agenda

- Introduction to SDG&E
- Purpose of Conference
- Regulatory & Legal Overview
- RFP Process
- Energy Storage System (ESS) Bid Conformance Requirements
- Q&A

Introduction

- SDG&E's Energy Storage Team on the call
 - Dan Castillo – Supply Management – Contracting
 - Josh McIlvoy – Distributed Energy Resources – Project Manager
 - Gil Montes - Distributed Energy Resources – Project Manager
 - Ashley Gladden – Distributed Energy Resources – Project Coordinator
 - Randy Nicholson - Advanced Technology Integration – Policy Manager
- SDG&E's Independent Evaluator
 - Jonathan Jacobs – PA Consulting
 - Alex Pischalnikov – PA Consulting

Purpose of this conference

- Provide clarification of RFP process
 - Timelines and deadlines
 - Documentation requirements
 - Regulatory approval process for this RFP
- Provide overview of SDG&E's site and technical conformance requirements
- *Technical and commercial questions and concerns will be handled through a formal written process via Power Advocate website*
- *Please hold questions until the end of the presentation*

Legal Disclaimers: Anti-Trust Guidelines & Document Conflict

Anti-trust:

- All participants in today's meeting shall comply with anti-trust guidelines. These guidelines direct meeting participants to avoid discussions of topics or behavior that would result in anti-competitive behavior, including restraint of trade and conspiracy to create unfair or deceptive business practices or discrimination, allocation of production, imposition of boycotts and exclusive dealing arrangements

Document Conflict:

- This presentation is intended to be a summary level discussion of the information and requirements established in the 2014 Distribution Reliability/Power Quality RFP. To the extent that there are any inconsistencies between the information provided in this presentation and the requirements in the RFP Materials, the RFP Materials shall govern.

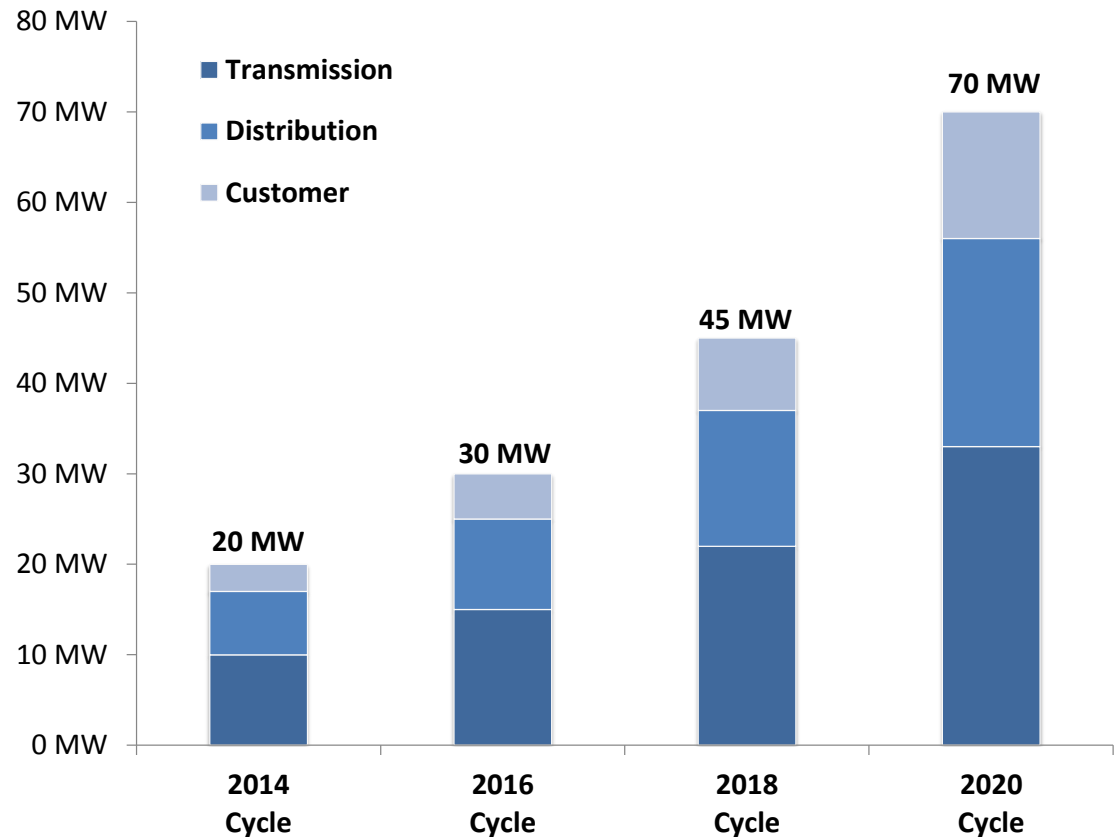
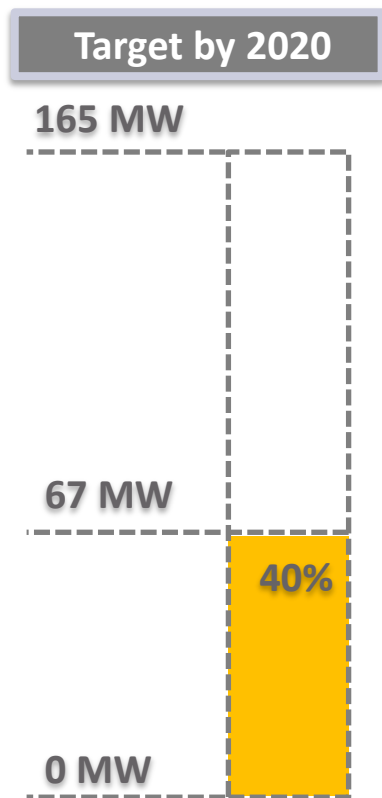
SDG&E Company Overview

- **1.4** million electric meters (~900k gas meters) serve over **3** million people. Smart Meter deployment is nearly complete.
- **4,500** employees support a territory covering **4,100** square miles in two counties and **25** cities.
- Transmission (69-500kV)
 - ~**1,800** mi overhead, ~**105** mi underground
 - Over **14,000** structures
 - **22** substations
 - **201** tie lines
- Distribution (12kV & 4kV)
 - ~**10,100** mi underground (60%)
 - ~**6,700** mi overhead (40%)
 - ~**280** substations
 - ~**1,000** circuits
 - ~**220k** wood poles
- **44,000+** (~300 MW capacity) net metering customers



Energy Storage Procurement Target

SDG&E has an energy storage procurement target of **165 MW**. SDG&E has achieved **40%** based on existing/in-progress projects (**51MW**) and capacity approved for solicitation in the 2014 cycle (**16MW**)



2014 Energy Storage Procurement Cycle

Implementation of 2014 Energy Storage Procurement Plan

2014 All Source RFO

- RFO issued on September 5, 2014 as part of Track 4 LTPP requirements
- Capacity: 25-800 MW. Includes the 12 MW approved in A.14-02-006 for Local & Flexible Capacity Requirement Programs
- Wholesale Market Participation
- 3rd Party & Utility Ownership
- Application Filing: 1Q 2016. SDG&E will seek special approval for deferred filing

Distribution Reliability/Power Quality RFP

- RFP issued on December 1, 2014
- Capacity: 4 MW
- Distribution Reliability Use Case
- Utility Ownership only
- Application Filing: 12 months after issuance of RFP

<http://www.sdge.com/sdge-energy-storage-system-%E2%80%99Cess%E2%80%99D-2014-distribution-reliability-power-quality-program-request>

Independent Evaluator Introduction and Role

- PA Consulting Group will be the Independent Evaluator (“IE”) for this solicitation. PA Consulting Group has been the IE for SDG&E’s previous procurement efforts.
 - 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 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

Supply Management - RFP Process

■ Timeline & Schedule

- All Bidder technical and commercial questions are due ***Friday 2/6/2015 by 1:00pm PPT***, and must be directed via email to Daniel Castillo at dcastillo2@semprautilities.com
- SDG&E will compile all Bidder questions and post the questions and answers in Power Advocate by ***Friday 2/27/2015***.
- Bidder proposals are due ***Tuesday 3/31/2015 by 1:00pm PPT***.
 - SDG&E will not accept proposals via email, they must be submitted in Power Advocate.
 - Note: Electronic submissions should be in Microsoft Office Software (Word, PowerPoint, and Excel) format. No PDFs unless additional/supplemental attachments are submitted.

Supply Management - RFP Process, cont.

- Documentation and Submission Requirements
 - All RFP documents are available for download from Power Advocate.
 - Bidders are required to submit the following documents in Power Advocate:
 - Executive Summary (2 pages maximum).
 - Exceptions to Schedule A – SDG&E Energy Storage System Specification.
 - Exceptions to Schedule A.1 – Energy Storage System Functionality and Site Conformance Requirements
 - Information requested in section 3.0 of the RFP, under Participation Criteria.
 - Pricing in Schedule B – ESS Pricing Table.
 - Exceptions to Schedule E – Equipment Supply and Installation Agreement.
 - Complete and submit Schedule F - DBE Subcontracting Commitment Form.
 - Complete and submit Schedule G - Bidder Questionnaire.
 - Complete and submit Schedule H - Sustainability Questionnaire.

ESS Conformance Requirements

Commercial Viability

- SDG&E requires system integrator *and* system components manufacturers to be commercially viable (as defined in the RFP document) to ensure technology is mature

General Criteria – Storage Systems.

i. At least one installation with grid-connected 1 MW (or greater) power capacity;

1. with additional contracts for 3 or more units;

2. in continuous operation for at least one year (with the exception of unplanned outages, see below);

3. with no more than 15 days of unplanned outages in the last year; and

4. which has operated through at least 25 full equivalent discharge cycles in the last year and able to meet discharge requirements set forth in this RFP (3 hours continuous at full power rating).

ii. Manufacturing capacity of at least 10 MW / 40 MWh annually in compliance with ISO 9001 requirements.

- Documentation of compliance is required when bids are submitted; lack of documentation will be considered non-conforming

ESS Conformance Requirements

Commercial Viability cont.

- SDG&E will only procure complete systems, not individual components (PCS, switchgear, energy storage cells, etc)
- SDG&E considers a complete system to be commercially viable when all components *as well as the system integrator* have demonstrated commercial viability
- From RFP Document:

b. Integration & Controls.

i. Battery Management System (BMS), Power Conversion System (PCS), DC/AC Inverters, and other power electronics must be commercially available and previously deployed and applied to an ESS at 1 MW+ scale.

ii. Integrators (i.e. bidders using 3rd party ESS or components) must have commercial deployment experience with 1 MW+ scale grid-connected energy storage systems.

iii. Integrators must show experience with post commercial operation trouble shooting and warranty performance for all components of 1 MW+ scale grid-connected energy storage systems it has constructed, including communications and controls.

iv. New versions of equipment, power electronics or software (e.g. "version 2.0") in the proposed solution must be based on proven deployments aligned with the requirements above.

ESS Conformance Requirements

Technical Specification Conformance

- SDG&E requires conformance with existing Technical Specifications (Schedule A) document
- Exceptions must be submitted in redline form at the time bids are due (March 31st)
- Bidders choosing to vary from Technical Specifications without requesting an exception will be deemed non-conforming

ESS Conformance Requirements

System Functionality and Site Conformance

- SDG&E is seeking to defer traditional distribution capital upgrades throughout its service territory with ESS technology
- In order to maximize flexibility, SDG&E desires a total of 4MW/12MWh broken up into 1MW/3MWh “sub-units” that can be located together or apart
- SDG&E reserves the right to change the final location of any or all of these sub-units based on the evolving needs of the distribution system.
- SDG&E requires conformance with existing System Functionality and Site Conformance Requirements (Schedule A.1) document
- Exceptions must be submitted in redline form at the time bids are due (March 31st)
- Bidders choosing to vary from Technical Specifications without requesting an exception will be deemed non-conforming

ESS Conformance Requirements

System Functionality and Site Conformance, cont.

- SDG&E will perform civil work necessary to place the system and electrical work necessary to connect the inverter to the grid
 - Bidders are responsible for delivery and installation
- In the event that SDG&E chooses to co-locate all units, all 4MW/12MWh must fit on a 0.6 acre plot.
 - The currently planned location is on SDG&E property adjacent to an upcoming substation

Q&A

- To keep the conference call clear, please indicate that you have a question on the MeetingPlace chat function
 - State your first name only and that you have a question
 - Please do not identify your company name
 - The moderator will call on you for your questions, then confirm that you are done before moving on