

# Demand Response Auction Mechanism (DRAM)

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## Pre-Bid (Bidders) Web Conference

October 6, 2015

Presentation will begin at 9:00 a.m. (PDT)

# Agenda

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- Introduction & Overview: 9:00 am – 9:45 am
  - Gene Lee, SCE
- DRAM Request for Offer (RFO) Bid Materials: 9:45 am – 11:00 am
  - General - Corey Mayers (PG&E)
  - IOU Walk-throughs of Offer Forms
- Bid Valuation and Selection: 11:00 am – 11:30 am
  - Evan Bierman, SDG&E
- Walk-Through of IOU DRAM RFO Websites: 11:30 am – 11:55 am
  - Corey Mayers, Gene Lee, Evan Bierman
- Participant Survey & Closing: 11:55 am – Noon
  - Gene Lee

# Introduction & Overview

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## Conference Scope/Logistics

Scope: Focus on 2016 DRAM Pilot Request For Offer (RFO)

Out of Scope: We will not discuss other DR programs, the 2017 DRAM Pilot, or other utility procurement programs

Housekeeping Questions?

- Please remain on mute; do not put us on hold. If you need to leave, drop off the call. This conference is being moderated by an operator. There will be opportunities for Q&A throughout this presentation. Please follow the operator's instructions to ask a question.

# Legal Disclaimers: Anti-Trust Guidelines & Document Conflict

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## Anti-Trust Guidelines

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 2016 DRAM 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.

# General Q&A Guidance

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- We have posted (and will continue to post) questions and answers on the DRAM RFO websites:
  - [PG&E: http://www.pge.com/dram](http://www.pge.com/dram)
  - [SCE: http://www.on.sce.com/DRAM](http://www.on.sce.com/DRAM)
  - [SDG&E: http://www.sdge.com/2016DRAMRFO](http://www.sdge.com/2016DRAMRFO)
- Q&A's that apply to all three IOUs are included on all three sites, but IOU-specific questions are only on the associated IOU's site.
- Questions and answers from today's conference will be documented on the sites.
- Questions can be submitted via email at any time until the question submittal deadline as follows:
  - [DRAMRFO@pge.com](mailto:DRAMRFO@pge.com)
  - [DRAMRFO@sce.com](mailto:DRAMRFO@sce.com)
  - [DRAMRFO@semprautilities.com](mailto:DRAMRFO@semprautilities.com)and MUST cc the Independent Evaluator (IE):
  - [waynejoliver@aol.com](mailto:waynejoliver@aol.com)
- Questions received (and answers) will be posted to the website periodically
- Deadline to submit questions: October 20, 2015 and we will post the final set of answers no later than October 23, 2015 (offers are due on October 26, 2015).

# Overview

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Gene Lee

Southern California Edison

Energy Procurement & Management

## What is the DRAM RFO Pilot?

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Originated as a California Public Utility Commission (CPUC) staff proposal in the demand response (DR) OIR (R.13-09-011); changed to a pilot by D.14-12-024.

Envisioned as new supply-side DR approach for third-parties

- Provides a capacity payment for DR aggregators [also referred to as **resource adequacy (RA)**]
- DR aggregators participate directly in the California Independent Operator System (CAISO) market with customers in the IOU service area
- An alternative to bilateral Aggregator Managed Portfolio (AMP) contracts and other Investor Owned Utility (IOU) DR offerings
- An offering to encourage new participants in the DR market
- 2016 DRAM: RFO in 2015 for System RA capacity in 2016
- Standard contract for capacity/RA; no bilateral negotiations
- Capacity may vary by month for delivery during one or more months from June to Dec 2016
- Seller bids capacity as one or more **Proxy Demand Resources (PDR)**. Seller's DR resource composed of a PDR or multiple PDRs aggregating customers within the IOU service territory (DLAP)
- The PDR is bid directly into the CAISO Day-Ahead Market during Must Offer hours.

## What is the DRAM RFO Pilot? (Cont'd)

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Two types of DRAM resources can be bid:

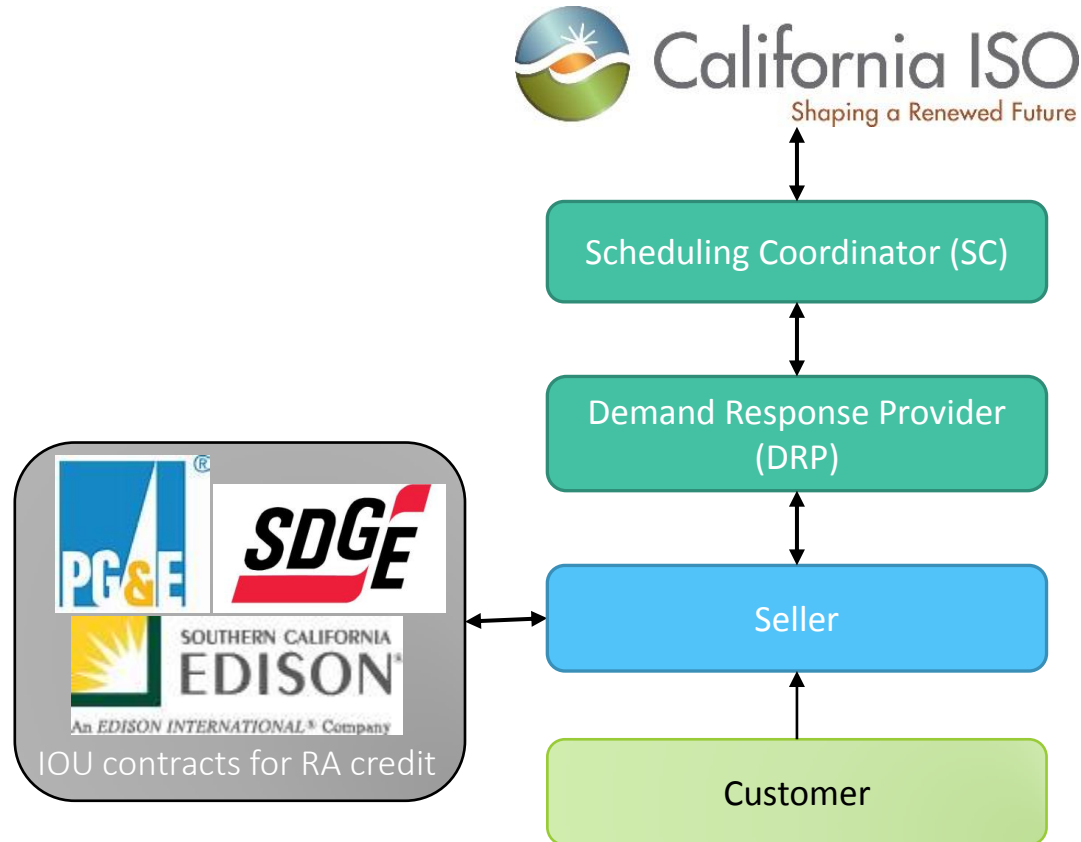
- Residential bid where DRAM resource is composed of at least 90% residential customers and no more than 10% small commercial customers (based on registrations)
- General bid can have any type of customer included
  - Customers can use onsite renewable generation or energy storage to provide load reductions
  - Customers can have back-up fossil generation, but cannot use it for DRAM load reductions. Seller is responsible for enforcing this requirement.
- At least 20 percent of the total procured DRAM bids by each IOU must be residential (in MW terms)

Funding of the DRAM pilot is from IOUs' Demand Response program budgets

- Funding of the 2016 DRAM pilot generally limited to \$4 million each for PG&E and SCE and \$1 million for SDG&E
- At least 10 MWs each will be acquired by SCE and PG&E, and 2 MWs by SDG&E (subject to available registrations and receiving adequate bids)



# Direct Participation and Resource Adequacy Illustration



## Third Party Direct Participation

- Seller aggregates customers for DRAM Resource
- Seller participates (bids) directly in the CAISO market through SC
- Dispatches and settlements are between CAISO and Seller's SC
- All earnings in CAISO markets go to Seller and Seller's customers; no IOU involvement

## RA

- Seller provides capacity (RA tag) to IOU 45 days prior to month
- Seller provides demonstrated capacity through SC to IOU at end of the month

# Roles & Responsibilities

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## **Wholesale Demand Response Provider (DRP)**

- Submits resource registration to CAISO consisting of unique customers
- Meets CAISO's 100 kW minimum per PDR

## **CAISO**

- Receives product registration from DRP
- Receives bidding and scheduling activity from SC
- Operates market and dispatches resources
- Determines performance and settlement in conjunction with SC

## **Scheduling Coordinator (SC)**

- Can act as a DRP
- Facilitates DRP/Aggregator scheduling and bidding activity with CAISO
- Facilitates settlement and calculation of baselines and performance

# Roles & Responsibilities (Cont'd)

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## Seller

- Recruits customers for participation (may also be a customer)
- Contracts with customers to provide load reduction
- Submits Customer Information Service Request/Demand Response Provider (CISR-DRP) for each service account to authorize IOU to release customer data
- Acts as a Wholesale Demand Response Provider or contracts with SC to be DRP
- Works with Scheduling Coordinator to bid DRAM resources via appropriate CAISO product and market and comply with the CAISO Must Offer Obligation
- Communicates load reduction events to customers
- Receives meter data for settlement from IOU (per authorization provide in CISR-DRP)
- Settles with customers and SC and retains earnings from market participation
- Provides required registration data for Residential DRAM resource
- Provides required security posting to buyer per contract
- Submits the RA amount for each month to buyer 45 days prior to delivery month
- Works with scheduling coordinator to provide demonstrated capacity
- Works with scheduling coordinator if there is an audit of demonstrated capacity

# Roles & Responsibilities (Cont'd)

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## Buyer (IOU)

- Claims RA credit for DR resource provided by seller
- Not involved in CAISO market settlements
- Receives product registration from seller if it is bidding a Residential DRAM resource
- Pays seller for DR capacity after delivery month upon receipt of demonstrated capacity by Seller
- Right to audit RA delivered under “demonstrated capacity” contract provisions
- The IOUs conducted a request for information from SCs to determine which are interested in providing services to DRAM winners

## Investor Owned Utility (IOU) [different part of company firewalled from IOU as RA buyers]

- Validates customer eligibility upon receipt of CISR-DRP from Aggregator/DRP
- Provides meter data to Aggregator/DRP per conditions of CISR-DRP and Rule 24/32

# Roles & Responsibilities (Cont'd)

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## Scheduling Coordinator (SC)

- To bid Proxy Demand Resource(s) into the CAISO market, Sellers will be required to use a CAISO-qualified SC to conduct market and business transactions with the CAISO
- The DRAM Sellers will provide SC costs as part of their bid
- The SC will handle business relationships and transactions with CAISO
- Must provide any information should there be an IOU audit of demonstrated capacity
  
- SC RFI information is posted at <http://www.pge.com/scrfi> and on IOU DRAM RFO websites.

# Independent Evaluator (IE)

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- Merrimack Energy Group is the IE for this solicitation
  - Wayne Oliver – lead and key contact ([waynejoliver@aol.com](mailto:waynejoliver@aol.com))
- Role of the IE is to ensure reasonable and uniform treatment of all potential counterparties by :
  - Monitoring IOU solicitation and discussion processes
  - Monitoring IOU valuation methodologies and selection processes
  - Reviewing bids to assure competitive process and no market collusion or market manipulation by some Sellers
  - Reporting to the Commission on the auction process
  - Provide an assessment of the IOUs' effort to attract new DR participants and recommendations for how to better attract new DR participants
  - Assess the effectiveness of the residential set-aside and provide recommendations for how to better attract residential customers
- The IE is privy to viewing all offers, invited to participate in all discussions, reviews all bids, reviews bid scoring and selection, and must be copied on all correspondence between each IOU and their bidders

**Bidders MUST cc [waynejoliver@aol.com](mailto:waynejoliver@aol.com) on all emails and correspondences with the IOUs**

# Questions

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# DRAM RFO Materials

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Corey Mayers

Pacific Gas & Electric

Demand Response Policy & Planning



# Keys to a Successful Proposal

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Read, understand, and follow instructions

Know deadlines and what is expected

All documents are located each IOUs' RFO websites as referenced in Slide 5

If you have any questions, please fully review the website first, then, if you have further questions, contact the DRAM RFO team by emailing each IOU (below) and **cc: Wayne Oliver at [waynejoliver@aol.com](mailto:waynejoliver@aol.com)**:

- [DRAMRFO@pge.com](mailto:DRAMRFO@pge.com)
- [DRAMRFO@sce.com](mailto:DRAMRFO@sce.com)
- [DRAMRFO@semprautilities.com](mailto:DRAMRFO@semprautilities.com)

# DRAM RFO Schedule

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DRAM 1 RFO Step	Date	Day
CPUC Decision on DRAM Pilot Advice Letter (Voted)	Complete	Complete
CPUC Decision on DRAM Pilot Advice Letter (Published)	Complete	Complete
Launch SC RFI	Complete	Complete
File Supplemental Advice Letter with conforming RFO/RFI changes	Complete	Complete
Deadline for RFI proposal submissions	Complete	Complete
Launch RFO	Complete	Complete
Deadline for RFO bid submissions	<b>10/26/2015</b>	Mon
IOUs notify non-conforming Bidders (request to “cure”)	<b>10/30/2015</b>	Fri
Bidder “Cure” Period Concludes	<b>11/6/2015</b>	Fri
Notice to bidders of selection and send final contract for execution	<b>11/30/2015</b>	Mon
IOU files Tier 2 advice letter seeking CPUC approval of contracts	<b>1/8/2016</b>	Fri
Energy Division gives notice of approval or other action	<b>2/8/2016</b>	Mon

# Purchase Agreement Highlights

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## Article 1 – Transaction

- Residential/General Customer Product

## Article 3 – Seller Obligations

- Supply Plan
- RA Obligations

## Article 4 – Payment and Billing

- Invoicing

## Article 5 – Credit and Collateral

## Article 7 – Representations, Warranties and Covenant

- Back-Up Generation

*Exhibit C – Notice of Demonstrated Capacity*

*Exhibit D – Notice of Showing Month Supply Plan*

# Form of Notice of Demonstrated Capacity

## EXHIBIT C - Notice of Demonstrated Capacity

Demand Response Auction Mechanism (DRAM)

Showing Month: \_\_\_\_\_  
 Seller: \_\_\_\_\_  
 Seller Contact Name: \_\_\_\_\_  
 Seller Contact Phone: \_\_\_\_\_  
 SCD: \_\_\_\_\_

Total "Monthly Quantity"<sup>\*\*</sup> (MW): \_\_\_\_\_  
 Total "Demonstrated Capacity" (MW): 0.00 MW  
 Residential Product (Yes / No)

Therefore, in Delivered Capacity Payment formula, 'B' = 0.00 MW and 'D' = \_\_\_\_\_

PDRs in the DRAM Resource			"Demonstrated Capacity" (MW)						Joint PDR Adjustment		Residential Product Delivery		
			It is Seller's sole discretion as to which Demonstrated Capacity method is used for each PDR.										
PDR Resource Name	CAISO Resource ID	Assigned NQC (MW)  0.00 MW	For each PDR Resource (row), choose one demonstration method (column) to establish monthly Demonstrated Capacity						Complete for all resources		Residential Product This section is only required if delivering Residential Customer Product		
			<b>Capacity Test</b> Maximum hourly load reduction during capacity test conducted by Seller's SC during Showing Month		<b>Must Offer Obligation (MOO)</b> Average capacity amount Seller bid into CAISO during Showing Month		<b>Dispatch Results</b> Maximum hourly load reduction resulting from Dispatch during Showing Month		<b>MW Claimed</b> Specify the MW portion used to meet the contract obligation				
			Raw Demonstrated Capacity	Lesser of Assigned NQC or Raw Demonstrated Capacity	Raw Demonstrated Capacity	Lesser of Assigned NQC or Raw Demonstrated Capacity	Raw Demonstrated Capacity	Lesser of Assigned NQC or Raw Demonstrated Capacity	Joint PDR? (Yes/No)	MW Claimed	Total Service Accounts <sup>**</sup>	Residential Customer Service Accounts <sup>**</sup>	Small Business Customer Service Accounts <sup>**</sup>
				0.00 MW		0.00 MW		0.00 MW					
				0.00 MW		0.00 MW		0.00 MW					
				0.00 MW		0.00 MW		0.00 MW					
				0.00 MW		0.00 MW		0.00 MW					
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				0.00 MW		0.00 MW		0.00 MW					
				0.00 MW		0.00 MW		0.00 MW					
Demonstrated Capacity ==>				0.00 MW		0.00 MW		0.00 MW		0.00 MW	0	0	0
<b>IMPORTANT NOTES:</b> ▲ "Monthly Quantity" is from the quantity & pricing Table in Section 1.5(a). * In case of a Joint PDR, report full PDR NQC here. ** If using a Joint PDR, report Service Account information (count) only for portion used			1) Each capacity test must be at least two (2) consecutive hours long  2) Should be calculated using the PDR Capacity Baseline	1) Must be bid into the Day-Ahead Market  2) Only include bids submitted in compliance with the MOO hours	1) An eligible Dispatch requires that the PDR provided load reduction in all applicable hours of the CAISO Dispatch Instructions.  2) Should be calculated using the PDR Capacity Baseline	For PDRs that are not Joint PDRs, MW Claimed is equal to MW Demonstrated (Column F, H or J)  For Joint PDRs, MW Claimed is a portion of MW Demonstrated	Percent Residential Accounts						

The information provided by Seller in this Notice of Demonstrated Capacity is required by Section 1.5 of the DRAM Resource Purchase Agreement with "insert IOU name".

# EXHIBIT D

## Form of Notice of Showing Month Supply Plan

Sample Counterparty Monthly Supply Plan Template										
Contact Information			Supply Plan Information for Resources under DRAM Purchase Agreement to [insert IOU name]							
Contact Person	Phone Number	Email	SCID of Seller	Resource ID in CAISO Master File	RA Capacity (MW 00.00 No Rounding)	RA Capacity Used for Contract (MW 00.00)	If Joint PDR	RA Capacity Effective Start Date (mm/dd/yyyy hh: mm:ss)	RA Capacity Effective End Date (mm/dd/yyyy hh: mm:ss)	SCID of Load Serving Entity
The information provided by Seller in this monthly Supply Plan template is required by Section 1.4 of the DRAM Resource Purchase Agreement with Buyer.										

## Offer Forms (General Information)

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- Offer Forms are completed by the Seller and contains information about the Seller entity, such as:
  - Principal business and address
  - Contact Information
  - Supplier Diversity (DBE)
  - Qualitative Scoring Matrix responses (SDG&E Only)
- Offer Form highlights:
  - Bid – Residential or General
  - Bid – kW or MW in each month and price per kW or MW offered, depending on Offer Form (minimum 100 kW, maximum 10 MW each for SCE and PG&E, 2 MW for SDG&E)
  - Number of registrations expected for each bid
    - While customers do not have to be under contract, the aggregator should have an idea depending on the type of bid (residential/general) as to the number of customers needed to provide the MWs
  - Maximum number of bids (20) and indication of which bids are exclusive
    - Can have multiple bids with same expected set of customers (exclusive)
    - Can have bids with different expected sets of customers (non-exclusive)

## Offer Forms (Cont'd)

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Detailed Walk-Through of IOU-specific Offer Forms by PG&E, SCE, and SDG&E...

# Questions

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# Valuation and Selection

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Evan Bierman  
San Diego Gas & Electric  
Origination & Portfolio Design

# Supplier Diversity

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The IOUs encourage Women, Minority, Disabled Veteran, Lesbian, Gay, Bisexual and Transgender Business Enterprises (“Diverse Business Enterprises” or “DBE”s) to participate in the DRAM RFO

## General Order (GO) 156

- Adopted by the CPUC in 1986, with electric procurement added in 2012
- Promote greater competition among utility suppliers by expanding the available supplier base and to encourage greater economic opportunity for Diverse Business Enterprises historically left out of utility procurement.
- Sets the rules governing the development of programs to increase participation of DBEs in procurement of contracts from utilities as required by CPUC Code

**Only SDG&E** will use this information in the valuation process strictly according to the scoring matrix.

For additional information, please visit or contact:

- PG&E: [www.pge.com/supplier\\_diversity](http://www.pge.com/supplier_diversity).
- SCE: [www.sce.com/SD](http://www.sce.com/SD); guidance is also available at [www.sce.com/EnergyProcurement](http://www.sce.com/EnergyProcurement) under the heading “Help & Guidance”
- SDG&E: <http://www.sempra.com/about/supplier-diversity>
- or Erica Beale, Program Manager, Supplier Diversity & Supplier Relations SDG&E, [EBeale@semprautilities.com](mailto:EBeale@semprautilities.com), 858-636-5538 or Brad Mantz, E&FP DBE Ambassador & Energy Contracts Originator, [BMantz@semprautilities.com](mailto:BMantz@semprautilities.com), 858-654-1588

# Diverse Supplier Certification\*

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To be eligible for considering under GO 156, a DBE firm must have the following requirements for certification:

- 1) A business enterprise:
  - a) that is at least 51% owned by a minority or service disabled veteran individual or group(s) or
  - b) if a publically owned business, at least 51% of the stock of which is owned by one or more minority groups and
- 2) Whose management and daily business operations are controlled by one or more of those individuals

Minority, Women or LGBT owned companies

- California Public Utilities Commission (CPUC) Supplier Clearinghouse (free)

Service Disabled Veteran Business

- State of California, General Services Office of Small and Disabled Veteran Business (OSDC)

NMSDC

- Regional affiliates of the National Minority Supplier Development Council (NMSDC)

Others

- Small Business Administration 8(a) (SBA)
- Women Business Enterprise Council (WBEC-WEST)
- State and municipal government agencies

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

# Valuation and Selection Processes

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Bids MUST comply with all the requirements of the RFO

- Any bids with conformance issues will be discussed with the IE
- The goal is to ensure all bidders are treated in a fair manner
- There will be a 7 day “cure” period from October 30 to November 6
- During this period bidders will only be allowed to change fields that the IOU has stated require revision(s). No changes will be allowed to any other fields.
- Bidders will not be allowed to correct pricing level unless specifically requested by IOU during the cure period. It is the responsibility and duty of the seller to accept full risk for pricing and developing their project.

The IE will review and validate methods of processing the bid information and evaluating offers to ensure that the evaluation is done fairly with no preferential treatment to any bidder.

Affiliate bids will be closely examined during the evaluation offer process to ensure the offer is evaluated in the same manner as the other offers.

All communications and negotiations will be closely monitored and assessed by the IE to ensure no preferential terms and conditions are included in the offer.

## Valuation and Selection Processes (Cont'd)

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The California Public Utilities Commission has prescribed a different valuation and selection process than the normal IOU RFO process of “Least-Cost Best-Fit.” The DRAM valuation is entirely quantitative with unique requirements for taking Residential bids. The following are the factors that will be considered:

- Residential or General bid
- Capacity price (\$ per kW-month)
- SC costs (\$ per month)
- Monthly weighting of the value of capacity
- Debt equivalence (SCE only)
- Qualitative Scoring Matrix (SDG&E only; see next slide)
- Expected Registrations

Lowest cost bids based on the factors above will be selected up to the funding limits (generally \$4 million each for PG&E/SCE, \$1 million for SDG&E); unless bids are rejected as “clear outliers or where there is evidence of market manipulation”. Residential bids are required to be 20% of the MWs taken in the RFO.

The number of MWs taken may be limited by the maximum number of registrations available under Rule 24/32 (14,000 for SCE, 10,000 for PG&E, and 7,000 for SDG&E)

# Qualitative Scoring Matrix (SDG&E only)

## Qualitative Scoring Adder

Criteria	Answer	Score		SCE	Weight		Weighted Score (Score x Weight)
		(Yes)	(No)		SDG&E	PG&E	
Have you (the Seller) participated in a DR program or DR market anywhere as an aggregator?	Yes / No	0	1	0%	3%	0%	%
Will your project require any permits, interconnection agreements, environmental studies, or additional land rights prior to operation?	Yes / No	1	0	0%	3%	0%	%
Is there any ongoing investigation or an investigation that has occurred within the last five years with respect to any alleged violation of any rule, regulation, or law associated with any commodity, securities, environmental, or financial market regarding any DR services you were/are providing?	Yes / No	1	0	0%	3%	0%	%
<b>DBE</b>							
Do you have, or will obtain before the program begins, DBE status?	Yes / No	0	1	0%	1%	0%	%
<b>Project Diversity</b>							
Are you going to use enabling technology with at least 90% of your PDR customers?	Yes / No	0	1	0%	5%	0%	%
Total Qualitative Score							Sum of Above

The bid price will be adjusted as follows for each month – bid price x (1+ sum of scoring matrix weights expressed as a decimal)

## Procurement Review Group (PRG) and IE Report

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The PRG includes the CPUC Energy Division, ORA, TURN, and other interveners.

The PRG reviews the procurement process of all three IOUs.

During the course of this RFO, the IE will be reporting on the progress and any issues on this RFO to the PRG.

Public and confidential IE reports following the required IE template guidelines.

These reports are filed at the CPUC with the requests for contracts approval from the CPUC.

# Questions

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# Walk-Through: IOU DRAM RFO Websites

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## PG&E:

- <http://www.pge.com/dram>

## SDG&E:

- <http://www.sdge.com/2016DRAMRFO>

## SCE:

- <http://www.on.sce.com/DRAM>

## DRAM Pilot Participant Survey

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**CPUC requirement:** Assess Participants' initial ability to understand or familiarity with the CAISO products, performance requirements and markets.

**DRAM Pilot Participant Survey:** Please take a moment to respond to the survey questions provided in the link below. The survey will also be available on each IOU's RFO website. It should take less than five minutes to complete.

The survey will close **October 13, 2015**.

Please copy/paste the following link to your browser:

<https://www.surveymonkey.com/r/YHPBDV5>

# Thank You