



Local Capacity Requirements Request For Offers (LCR RFO): Energy Efficiency Webinar

Topic: SCE LCR RFO Energy Efficiency Webinar
Date and Time: November 15, 2013 / 1:30PM – 3:00PM Pacific Daylight Time
WebEx address: <https://sce.webex.com/sce/onstage/g.php?d=800655520&t=a>
WebEx Password: SCE
Dial In: Toll-free: 1-888-686-9119 Int'l: 1-210-795-7882
Participant Code: 7835304

Energy Efficiency Webinar Agenda

- ◆ Overview 1:30PM - 1:45PM
 - Introduction
 - LCR RFO Recap and Overview
 - RFO Schedule
 - Meet the LCR RFO Energy Efficiency Team

- ◆ Overview of EE Product 1:45PM – 2:00PM
 - Overview of the EE Product
 - EE Product Key Concepts

- ◆ Overview of EE Excel Appendices 2:00PM – 2:15PM
 - Overview of the EE Excel Appendices

- ◆ Overview of Valuation 2:15PM – 2:30PM

- ◆ Q&A Session 2:15PM – 3:00PM

EE Webinar Scope

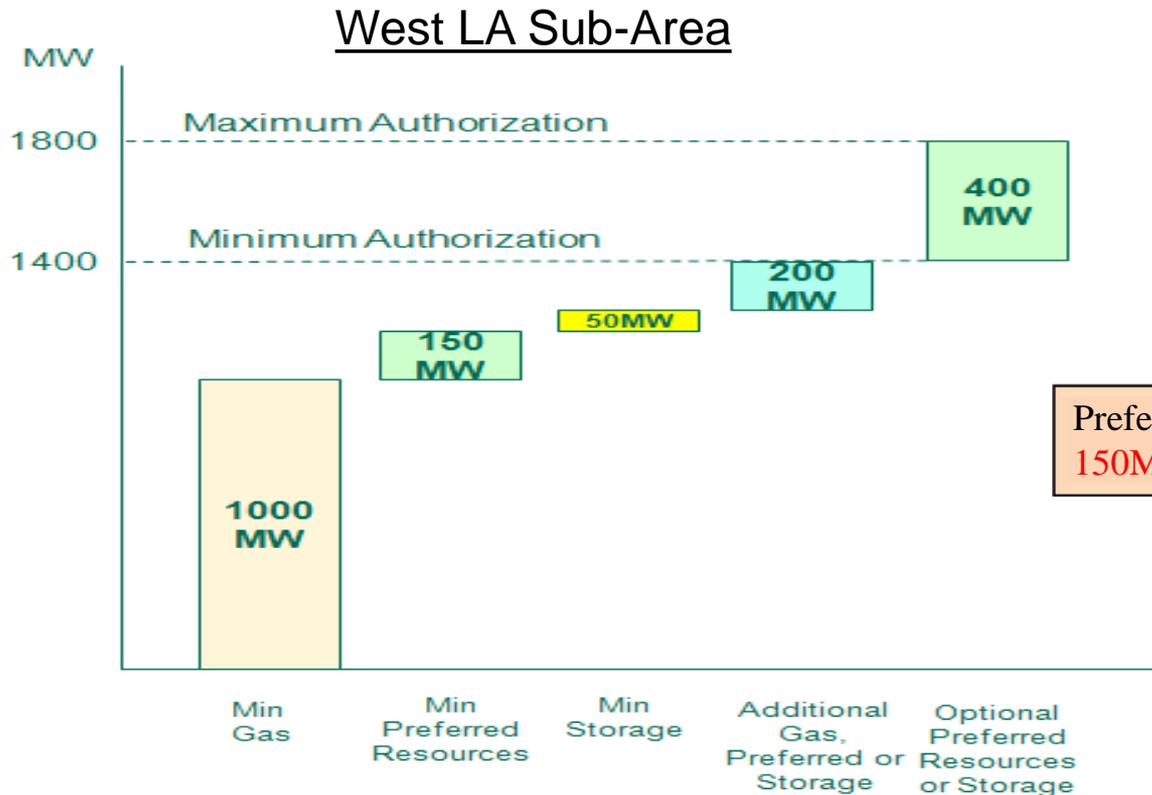
- Focus on LCR RFO's Energy Efficiency product - we will not be discussing other LCR RFO products or other SCE procurement programs
- Provide an overview of the EE product and offer submission process
- We'd like to hear your questions on the LCR RFO EE product
 - Time will be reserved for "live" questions
 - Questions can also be submitted by typing them in through the WebEx
- Following the EE Webinar, EE Participants are encouraged to submit additional follow-up questions by sending an e-mail to LCR.RFO@SCE.com

LCR RFO Website

<https://www.sce.com/wps/portal/home/procurement/LCR-RFO/>

What is the LCR RFO?

- To meet projected local capacity needs as a result of expected retirement of Once Through Cooling (OTC) generating units, D.13-02-015 orders SCE to procure the following new resources by 2021:



Moorpark Sub-Area:

- 215-290 MW in Ventura/Big Creek

Preferred Resources:
150MW - 750MW

RFO Instructions – What, Where and When?

- SCE is procuring for a 2021 need, thus the delivery period must include the entire calendar year 2021
- Contracts may start delivery as early as January 1, 2018, however contracts that interconnect at the Goleta, Johanna or Santiago substations (or interconnect to lower voltage substations that are connected to these substations) may start delivery as early as January 1, 2015
- Demand side management projects must source demand response or energy efficiency from customers that take or receive electricity service from those A-Bank substations or from lower voltage substations that are connected to those A-Bank substations
 - West LA Basin A-Bank Substations: SCE has completed a map that more specifically identifies West LA Basin A-Bank substations¹
 - Moorpark A-Bank Substations: Goleta, Mandalay, Moorpark, Ormond Beach, Santa Clara

¹https://www.sce.com/wps/wcm/connect/f76531bc-b97d-479f-8646c6343e9e40dd/GenerationSiting_WesternLABasin.pdf?MOD=AJPERES

LCR RFO Schedule

Timeline	Event
Sept 12, 2013	RFO documents issued
Dec 2, 2013	Deadline to submit Non-binding Notice of Intent to Offer
Dec 16, 2013	Deadline to submit Indicative Offer and completed Offer Submittal Package
Jan 30, 2014	Shortlist notification
May 22, 2014	Deadline to complete negotiations of Agreement(s)
May 29, 2014	Deadline to submit Final Offer
June 26, 2014	Last date for notification of successful Offers and to sign Agreements

Overview of the Energy Efficiency (EE) Product

- The LCR RFO will be a complex and challenging solicitation that is open to all LCR technologies
- SCE recognizes that the published EE pro forma may not work for every EE offer and is prepared to work with EE counterparties to develop appropriate contracts
- SCE encourages open, constructive, and creative dialogue with EE market participants to meet the LCR needs
- EE market participants are encouraged to provide as much detail as possible to assist the SCE team in evaluating offers

Overview of the Energy Efficiency (EE) Product (cont.)

- The EE Agreement is a “stand alone” pro forma contract that provides flexibility to encompass a range of different EE projects types and term
- The EE Agreement provides the contractual terms by which the EE bidder (“Seller”) agrees to install and operate the EE project(s) for the term of the contract, which will result in energy and capacity savings to SCE (“Buyer”).
- Seller and SCE will agree upon a project completion date and energy measurement and verification (EM&V) for the EE project(s)
- SCE will pay the Seller in tiered payment installments for completing the project and meeting the EM&V measures successfully

Overview of the Energy Efficiency (EE) Product (cont.)

Pre-Installation of the EE Project(s):

- A Pre-Installation Inspection will be conducted to determine the energy and capacity baseline used to measure savings from the Project
- Seller will be required to post Delivery Date Security equal to \$22.50/kW times the Expected Capacity Savings.

Overview of the Energy Efficiency (EE) Product (cont.)

Post-Installation of the EE Project(s):

- By the agreed upon Project Deadline, Seller 1) must completely install the EE Project and 2) ensure that the Project is fully operational; SCE will have the ability to test the EE Project to ensure the energy and capacity savings are met. This measurement will be based on the agreed upon EM&V methodology.
- If the Project is not installed and/or not fully operational, then SCE is entitled to 1) keep the entire Delivery Date Security and 2) terminate the EE Agreement.

Overview of the Energy Efficiency (EE) Product (cont.)

Payment:

- Assuming that Seller performs the obligations set forth in the contract, SCE will pay Seller:
 - A) 50% of the total payment after installation of the EE project(s)
 - B) 50% of the total payment over the course of the remaining term of the contract (at the end of each year following inspection)
 1. 20% payment at the end of Year 1
 2. 10% payment at the end of Year 2
 3. 10% payment at the end of Year 3
 4. 10% payment at the end of Year 4

} 50% of the total payment

Overview of the EE Excel Appendices

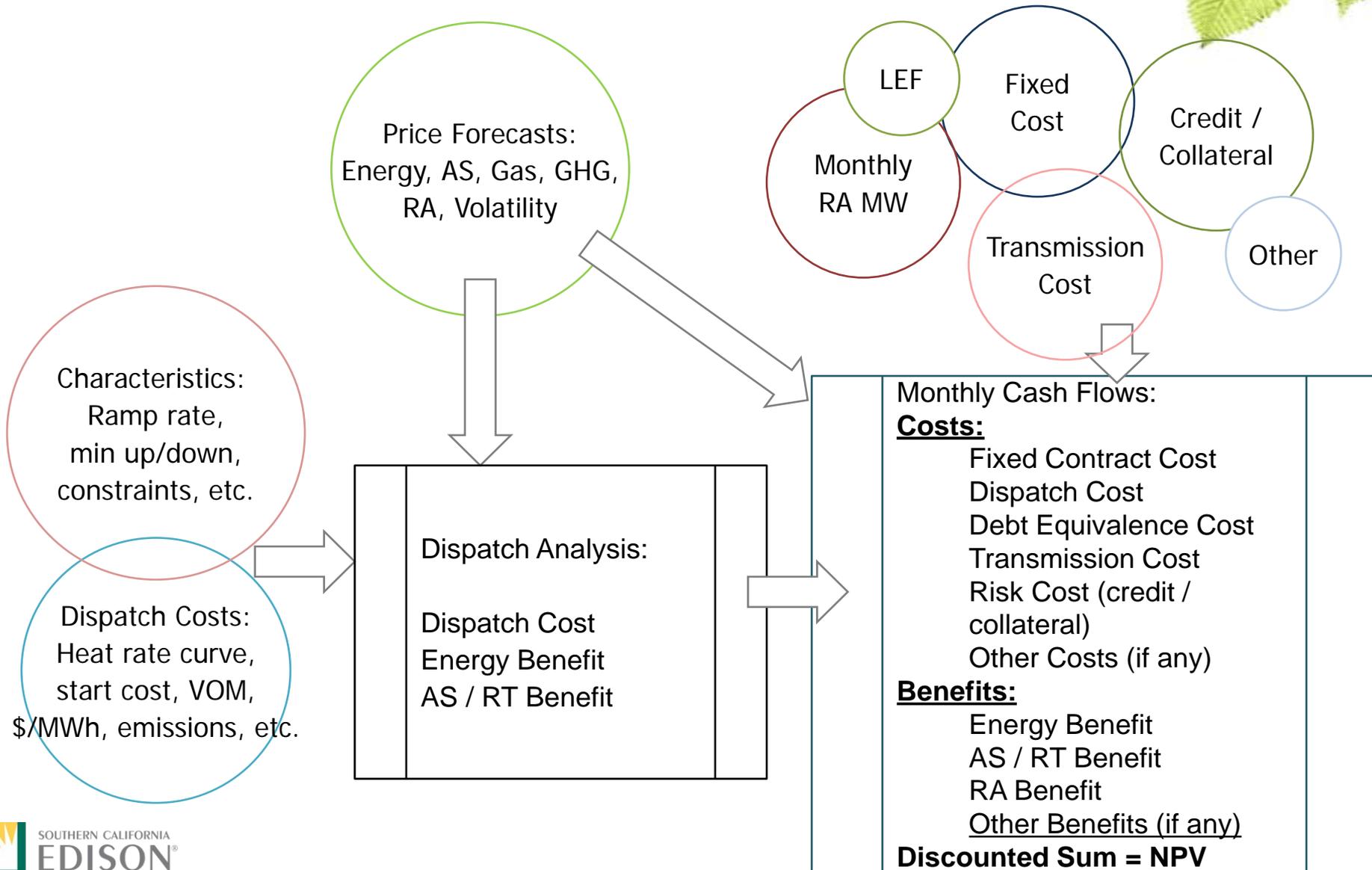
- We will transition to an overview of the EE Excel Appendices which can be found on the LCR RFO website¹

¹https://www.sce.com/wps/wcm/connect/1a887d72-6a04-4822-9481cddee4e8b1e3/ExhibitD4_4_2_LCRRFOEnergyEfficiencyExcelAppendix.zip?MOD=AJPERES

Valuation & Selection Process

- SCE incorporates “Least-Cost, Best-Fit” principles by accounting for quantifiable attributes explicitly in the valuation process (“Least-Cost”) while qualitative attributes are accounted for implicitly in the selection process (“Best-Fit”)
- Value each offer using discounted cash flow analysis (described in detail later)
- After the valuation process generates a Net Present Value (NPV) for each offer, SCE runs an optimization exercise to develop possible selection sets

Valuation Process



Summary of Typical Costs and Benefits For Resource Types

Resource Type	Benefits			Costs					Benefits / Costs
	Energy	Ancillary Services / Real Time	RA Capacity	Dispatch	Contract Payments	Debt Equivalence	Transmission	GHG Compliance	Other*
CHP	✓		✓	✓	✓	✓	✓	✓	✓
Dispatchable CHP	✓	✓	✓	✓	✓	✓	✓	✓	✓
Conventional Gas	✓	✓	✓	✓	✓	✓	✓	✓	✓
Renewable	✓		✓	✓	✓	✓	✓		✓
DR	✓		✓	✓	✓	✓			✓
EE	✓		✓		✓	✓			✓
Storage	✓	✓	✓	✓	✓	✓	✓	✓	✓
RA Tag			✓		✓	✓	✓		✓

*Examples of Other Benefits/Costs includes: distribution deferral, fixed access charges for fuel, credit/collateral adders

Market Price Forecasting

- Power Prices
 - SP15 for LCR
 - Locational price differentials may be applied where appropriate
 - Day-ahead / real-time variations
 - Long term forecast derived from a blend of market and fundamental models
- Ancillary Services Prices
 - Spin, non-spin and regulation (no black start value)
 - Fundamental impacts including (but limited to) increasing amounts of intermittent generation are captured in AS market price projections
- Natural Gas Prices
 - A blend of market and consultant outlooks
 - Location specific (SoCal, Kern, etc.)
- GHG Prices
 - A blend of market and consultant outlooks

Document Conflicts

- 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 established in the RFO Materials, the RFO Materials shall govern

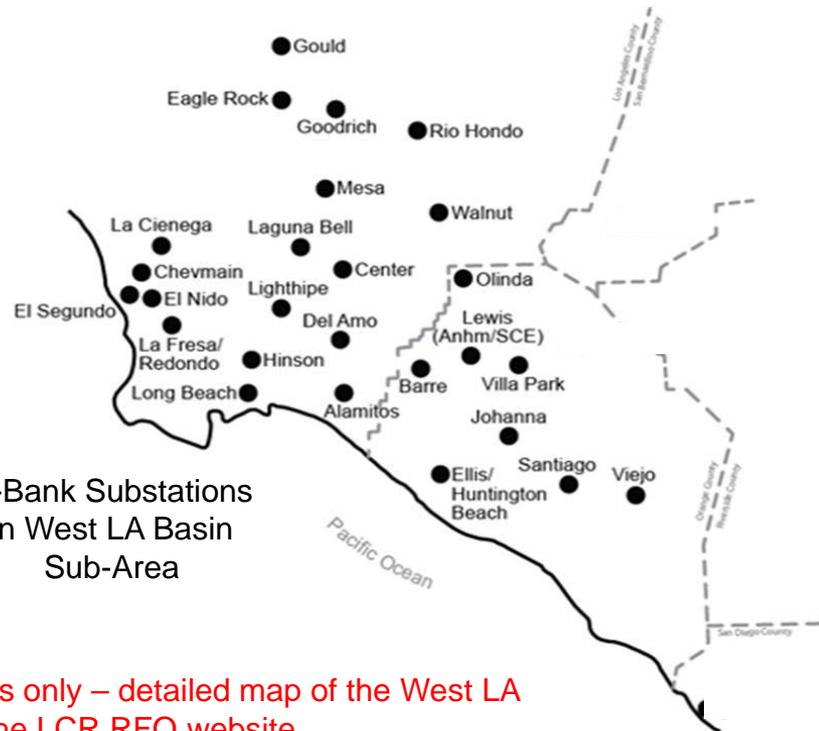
Questions



LCR Locations: West LA and Moorpark Sub-areas



A-Bank Substations in Moorpark Sub-Area



A-Bank Substations in West LA Basin Sub-Area

* Not to scale and locations for illustrative purposes only – detailed map of the West LA Basin Sub-Area can be found on the LCR RFO website

LCR RFO Documents

Document Name	What is it?	When is it due?
RFO Instructions	SCE created instructions that specify products to be solicited, eligibility requirements, process and evaluation overview	For Bidder information only
CEC's California Power Plants Database / Energy Facility Status Report, RFO Definitions	Assists in determining what facilities will be deemed "new" and complements all RFO Materials	For Bidder information only
Notice of Intent	Non-binding indication of products that bidder intends to submit offers for – assists SCE in planning	Due by 12/2/13 5PM PPT
Offer Sheet	Contains Bidder and Offer information - must be filled out in its entirety and submitted as part of Bidder's Indicative Offer	Due by 12/16/13 5PM PPT
Various Purchase Agreements	SCE's proposed agreements to start negotiations with Gas Fired, Combined Heat & Power, Demand Response, Energy Efficiency, Energy Storage and Renewable projects	Any proposed redlines to Agreements due by 12/16/13 5PM PPT
Various Excel Appendices	Data files meant to capture numerical information (e.g. operating characteristics, pricing) – complements purchase agreements	Due by 12/16/2013 5PM PPT and refreshed by 5/29/14 5PM PPT