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SOUTHERN CALIFORNIA EDISON®

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(U 338-E)

TESTIMONY OF SOUTHERN CALIFORNIA EDISON COMPANY IN SUPPORT OF APPLICATION FOR APPROVAL OF THE RESULTS OF ITS SECOND PREFERRED RESOURCES PILOT REQUEST FOR OFFERS.

PUBLIC VERSION

Before the

Public Utilities Commission of the State of California

Rosemead, California
November 4, 2016

SCE-01: Testimony Of Southern California Edison Company In Support Of Application For Approval Of The Results Of Its Second Preferred Resources Pilot Request For Offers.

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I.

INTRODUCTION

In this Application, Southern California Edison (SCE) seeks approval of 19 Purchase and Sale Agreements (PSAs) for 125 Megawatts (MW) of preferred resources[1] that interconnect to the lower voltage level substations and circuits, electrically in-line with either the Johanna A-Bank substation or the Santiago A-Bank substation (J-S Region). SCE procured 60 MW of in-front of the meter (IFOM) energy storage (ES), 55 MW of Demand Response (DR) supported by ES and load reduction, and 10 MW of behind the meter (BTM) solar photovoltaic (PV) paired with ES (Hybrid).[2] SCE procured these resources through its Second Preferred Resource Pilot (PRP) Request for Offers (RFO) (PRP RFO 2). These resources will support important endeavors informing the emerging modern grid, including (1) the PRP, (2) the Electric Program Investment Charge (EPIC) Investment Plan's Integrated Grid Project (IGP), and (3) at least two, and potentially three, proposed demonstration projects in SCE's Distribution Resources Plan (DRP), all of which are in furtherance of the State's important and ambitious energy and environmental policy goals. In addition to these primary purposes, the procurement may also offset 124.9 MW of SCE's *current* residual 169.4 MW Local Capacity Requirements (LCR) procurement requirement (which is contingent on the outcome of a pending California Independent System Operator (CAISO) analysis) with resources sited in the local J-S Region.

The backdrop for the launch of SCE's PRP in the J-S Region in 2013 was the impending retirement of coastal Once-Through-Cooling (OTC) plants and the closure of San Onofre Nuclear Generating Station (SONGS). Combined, these resource retirements represent a total loss of approximately 7,000 MW of generation capacity from resources that have historically been deemed critical to system and local reliability. At the time, there was a concern about electric grid reliability in

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[1] Preferred Resources for purposes of this application include energy efficiency, demand response, renewable distributed generation and energy storage.

[2] SCE requests Commission approval to recover the costs of these PSAs, depending on the resource technology, in either Generation rates through the Energy Resource Recovery Account (ERRA), distribution rates through the Base Revenue Requirement Balancing Account (BRRBA), or the Public Purpose Programs Charge (PPPC).

Southern California's Western Los Angeles (LA) Basin, which includes the J-S Region. In 2014, the CAISO released analysis showing that the Southwest sub-area of the Western LA Basin, which includes the Johanna and Santiago A-bank substations, is the most effective area to site resources in the Western LA Basin to meet the area's long-term local capacity needs.

Irrespective of whether the retirement of the OTC plants and SONGS continues to present reliability issues, customer electricity demand in the J-S Region is growing. The load growth in the region presents an opportunity for SCE, through its PRP, to (1) demonstrate the ability to site locally preferred resources to offset the growing load in the J-S Region, driven by new commercial and residential developments and business expansion; (2) operationally integrate and manage distributed energy resources (DERs) as they potentially become more than 20% of the resources serving the J-S Region, and (3) facilitate customer choice in meeting their energy needs with cleaner preferred resources by providing additional sourcing avenues through alternative energy service markets.

SCE's principal purpose for launching the PRP RFO 2 was to support the PRP endeavor. An equally motivating objective was to procure preferred resources through the PRP RFO 2 to support other important State-led endeavors that focus on the emerging, modernized grid, including the EPIC Investment Plan's IGP and at least two DRP demonstration projects.

Perhaps most importantly, SCE's procurement of preferred resources for the J-S Region is reasonable and in the best interest of customers because it supports the State's important and ambitious environmental and energy policies, including those embodied in the Assembly Bill (AB) 32's and Senate Bill (SB) 32's Greenhouse Gas (GHG) Cap-and Trade Program, Renewables Portfolio Standard (RPS), SB 327 and SB 350, and the Loading Order. As California moves toward a low-carbon future, the State is increasingly looking to electric utilities to procure clean sources of energy, or preferred resources, to meet energy and reliability needs. The preferred resources SCE procured for the J-S Region through the PRP RFO 2 will support the State's environmental and DER goals and provide valuable information for the future.

In addition to the primary purposes for the procurement described above, the PRP RFO 2 procurement may also contribute 124.9 MW of preferred resources,[3] sited in the effective area of the J-S Region, to help meet a portion of the 550 MW preferred resource procurement requirement[4] established in the Long Term Procurement Plan (LTPP) Track 1 and 4 decisions. SCE currently has a residual obligation to procure 169.4 MW of preferred resources or energy storage.[5] The CAISO will release an updated analysis later this year or early next year indicating whether a need remains for long-term local capacity resources in the Western LA Basin. That analysis may conclude that the electric grid reliability issue has been resolved, or reduced, assuming certain mitigation activities come to fruition.

In sum, the Commission should approve the competitively-sourced PRP RFO 2 procurement and requested cost recovery because obtaining the operational understanding sought through the PRP, the need for EPIC Investment Plan IGP and DRP work, and the furtherance of the state's important and ambitious energy and environmental policy goals is in the best interest of customers. Moreover, the PRP RFO 2 procurement may offset a portion of the current outstanding LCR procurement requirement.

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[3] All of the resources procured in the PRP RFO 2 will contribute towards SCE's LCR Requirement, but, due to specific resource adequacy requirements for LCR procurement, only 124.9 MW of the installed capacity of 125 MW will offset SCE's current outstanding LCR requirement.

[4] Decision (D.) 14-03-004 at p. 100 (SCE "may also procure energy storage as part of [its] preferred resources requirement[] or all source authorization[] . . . .").

[5] In addition to the resources procured in the PRP RFO 2, other procurement already undertaken by SCE will also count towards the outstanding LCR requirement of 169.4 MW. This procurement includes SCE's original LCR RFO, 2014 ES RFO, Aliso Canyon ES RFO, and other Aliso Canyon related procurement.

5. Shortlist/Waitlist Notification

Based on shortlist criteria and valuation results from the offers, SCE notified offerors whether they had been shortlisted or waitlisted.

a) Shortlist/Waitlist Methodology

The intent of the shortlist was to negotiate and execute agreements for all offers selected. SCE designed the waitlist to allow SCE to put a waitlisted project on the shortlist when shortlisted projects dropped out during the negotiation process. The goal was to help SCE seamlessly reach its procurement target. SCE selected which projects to place on the waitlist based on the same selection criteria and valuation results as SCE used to put projects on its shortlist.

b) Shortlist/Waitlist Procurement Target

SCE's target for the PRP RFO 2 was 100 MW of preferred resources delivered through the J-S Region to come online between October 2017 and January 2020. To meet the 100 MW goal, SCE set a 150 MW shortlist target and a 50 MW waitlist. SCE exceeded the 100 MW target because, based on historical experience, some offerors withdraw from RFOs during negotiations and some contracts may terminate after they are executed.

6. Contract Negotiation

Once SCE created the shortlist and waitlist, the offerors on those lists began negotiating terms and conditions based on SCE's published pro forma contracts.

7. Negotiation Deadline

SCE's negotiation deadline was the date by which SCE and the counterparty had to have agreed upon and finalized all terms and conditions so that the contract was ready to be executed. SCE paired the negotiated contract with a shortlisted offeror's originally submitted price to create the final, executable contract.

D. Solicitation Eligibility Requirements and Considerations

SCE required projects to:

(1) be new (not existing or repowered);

(2) utilize proven, commercially available technology;

(3) be at least 250 kW and ERR eligible for renewable DG and solar PV DG with ES projects (except that renewable DG projects and behind the meter solar PV DG with ES projects had a size maximum of 10 MW);

(4) be at least 250 kW (but not larger than 10 MW) for ES;

(5) be at least 1 MW for DR and permanent load shifting projects;

(6) have contract terms no longer than 20 years;

(7) be located in the J-S Region (participating customer accounts or physical resource interconnecting to a circuit or lower voltage substation physically connected to either the Johanna A-Bank Substation or the Santiago A-Bank Substation); and

(8) have a forecasted commercial operation date no earlier than October 1, 2017, but no later than January 1, 2020.

Further, projects were ineligible for PRP RFO 2 if the project was the recipient, past or present, of funding from Self-Generation Incentive Program (SGIP), California Solar Initiative (CSI), or Net Energy Metering (NEM). Using exclusionary criteria is an established procurement practice that is used to maximize value for customers by eliminating double payment for the same resource. However, as permitted by the Commission, customers may enroll in certain DR programs and participate in PRP RFO 2. For instance, a resource with a contract with SCE pursuant to PRP RFO 2 may participate in the Capacity Bidding Program (CBP) day-ahead option, provided that customers with load reduction already nominated for CBP are not also nominated in PRP RFO 2 contract in the same month (and vice versa).

In addition, SCE had the following product-specific requirements:

Table III-4
Product Specific Requirements

Product-Type	Product-Specific Requirement
DR: End-Use Equipment Load Reduction and DR – Behind-the-Meter (BTM) ES	• Must reduce load, up to the full Contract Capacity, within 20 minutes of a dispatch notice; • Delivery months must include at least June through September; • Must be available to reduce load during at least 3 consecutive weekdays, excluding holidays; • Delivery hours must be at least 4 consecutive hours, with at least 2 of these hours within the 13:00:00 to 18:59:59 time period; • No grid supply charging from 11:00:00 to 18:59:59 during "Local Resource Constraint Days."
Permanent Load Shift	• Delivery months must include at least June through September; • Delivery hours must be at least 4 consecutive hours with load reduction occurring from 10:00:00 to 18:59:59, with at least 2 of these hours within the 12:00:00 to 18:59:59 time period, and shifted to other hours; • No grid supply charging from 11:00:00 to 18:59:59 during "Local Resource Constraint Days;" • Where applicable, the project's energy and capacity reductions must meet or exceed the Title 24 and/or Tile 20 energy efficiency requirements set by the CEC.
BTM and IFOM Renewable Distributed Generation	• Projects qualify as Eligible Renewable Resources as defined by the Public Utilities Code (applicable to both BTM and IFOM); • Offerors must have control of the project site and relevant structures by the PSA effective date (applicable to IFOM only); • Offerors must intend to enter the Rule 21 or the WDAT Fast Track Process or provide evidence that their applications have passed or been deemed "complete" (applicable to IFOM only).
IFOM Energy Storage	• Delivery months must include at least June through September; • Delivery hours must be at least 4 consecutive hours with load reduction occurring from 10:00:00 to 18:59:59, and where at least (i) 2 of the 4 hours are consecutive, and (ii) 2 of the 4 hours must be within the 12:00:00 p m. to 6:59:59 p m. time period; • No grid supply charging from 11:00:00 to 18:59:59 during "Local Resource Constraint Days;" • By online date, project required to demonstrate that Full Capacity Deliverability Status ("FCDS") has been acquired; • Offerors must have control of the project site and relevant structures by the PSA effective date; • Offerors must intend to enter the Rule 21 or the WDAT Fast Track Process or provide evidence that their applications have passed or been deemed "complete."
For BTM Hybrid	• Delivery hours must be at least 6 hours with energy delivery for 10:00:00 to 18:59:59; • No grid supply charging from 11:00:00 to 18:59:59 during "Local Resource Constraint Days;" • Shall not export excess energy to the grid, participate in NEM or receive SGIP funds.
For IFOM Hybrid	• Delivery hours must be at least 6 hours with energy delivery for 10:00:00 to 18:59:59; • No grid supply charging from 11:00:00 to 18:59:59 during "Local Resource Constraint Days;" • Offerors must have control of the project site and relevant structures by the PSA effective date; • Offerors must intend to enter the Rule 21 or the WDAT Fast Track Process or provide evidence that their applications have passed or been deemed "complete."

Additionally, SCE indicated a set of project preferences to support meeting the objectives of the DRP and IGP. To support SCE's DRP Demo D and IGP, SCE expressed a preference for projects interconnecting directly to Johanna Jr. 66/12kV or to a circuit electrically in-line with the Johanna Jr. substation. SCE added the Camden 66/12kV substation as a preferred location during the negotiation period because DRP Demo D and IGP will leverage resources at these two substations to meet their objectives. Both Johanna Jr. and Camden B-Bank substations are electrically in-line with the Johanna A-Bank substation.

SCE also indicated a preference for projects interconnecting to eight circuits, unrelated to the substation preferences stated immediately above, to provide energy during specific periods of the day to address peak load, as specified in Table III-5 below:

Table III-5
PRP RFO 2 Preferred Circuits

Circuit	Delivery Hours
Euro	12:00:00 - 14:59:59
Guilder	
London	17:00:00 - 18:59:59
Myford	18:00:00 - 20:59:59
Muirlands	
Elden	
Hines	
Magazine	

SCE stated a preference for experienced project developers and offerors, as well as a preference for developers to submit two mutually exclusive offers for each project: one priced at a 20-year term and the other priced at a 15-year term. For DR projects, SCE indicated a preference for the resource to have the ability to dispatch loads on the circuit level. For projects with solar PV or ES, SCE preferred installation of smart inverters having capabilities outlined under Rule 21.[38] For IFOM projects, SCE

[38] Rule 21, Section Hh; additional details available at https://www.sce.com/NR/sc3/tm2/pdf/Rule21_1.pdf starting on p. 130.

preferred projects to not exceed 5 MW in size. For projects connected to or in-line with the preferred circuits, SCE decreased this preference to 3 MW.

E. Outreach Efforts

Prior to the RFO launch, and following launch but prior to the RFO offer submittal deadline, SCE conducted robust, multi-prong outreach to the broad developer market and potential stakeholders to make sure that potential offerors and other interested parties were made aware of the PRP RFO 2 solicitation. Because SCE solicited numerous types of products, including new types of products such as the solar PV/ES Hybrids, in a targeted area for the PRP RFO 2, SCE's outreach utilized a variety of mediums, including:

- Emailed a distribution list of nearly 3,000 recipients including developers, regulators, and relevant energy/capacity associations
- Hosted a publically accessible website containing relevant posted information plus posted FAQs and an interactive Q&A section
- Issued a press release upon RFO launch
- Hosted an in-person bidders' conference to walk through the various aspects of the solicitation process and criteria, discuss its valuation approach, and respond to offerors' questions; and posted the entire presentation on the RFO website
- Hosted a second bidders' conference, via a webinar, to review changes to the RFO Instructions, to review the newly published online RFO offer submittal forms, and to field any additional offeror questions; and posted the entire presentation with a recording of the conference on the RFO website.

SCE's robust outreach generated strong interest. In total, [redacted], all of which were processed through the RFO's screening processes to confirm offers were complete and conforming as per the eligibility criteria and submittal requirements set forth in the RFO Instructions.

CPUC General Order 156 (GO 156) contains "rules governing the development of programs to increase participation of women, minority and disabled veteran business enterprises (WMDVBE) in