

DRAFT

**PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

**ENERGY DIVISION**

**ID #10919  
RESOLUTION E-4456  
January 12, 2012**

**REDACTED**

**R E S O L U T I O N**

Resolution E-4456. Southern California Edison Company requests approval of power purchase agreements with Solar Star California XIII, LLC, Solar Star California XIX, LLC and Solar Star California XX, LLC.

**PROPOSED OUTCOME:** This Resolution approves cost recovery for power purchase agreements between Southern California Edison and Solar Star California XIII, LLC, Solar Star California XIX, LLC and Solar Star California XX, LLC.

**ESTIMATED COST:** Actual costs are confidential at this time.

By Advice Letter 2568-E filed on March 30, 2011.

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**SUMMARY**

**Southern California Edison Company's renewable energy power purchase agreements with Solar Star California XIII, LLC, Solar Star California XIX, LLC and Solar Star California XX, LLC are approved without modification.**

Southern California Edison Company (SCE) is requesting approval of purchase power agreements (PPAs) for three new solar photovoltaic projects to be located in California for a total output capacity of 711 megawatts (MW) and total annual expected generation of 1,835 gigawatt hours (GWhs). All three limited liability companies that will develop the three projects – Solar Star California XIII, Solar Star California XIX and Solar Star California XX (collectively known as the Solar Star Contracts) - are wholly-owned by SunPower Corporation Systems, a well-established vertically integrated solar company located in the United States.

The three projects are forecast to come online between December 1, 2014 and October 31, 2015 for a term of 20 years which coincides with SCE’s Renewable Portfolio Standards (RPS) portfolio needs in the second half of this decade. The Solar Star Contracts are reasonably priced compared to other contracts offered to SCE and the projects have already achieved significant milestones making them highly viable.

This resolution approves the PPAs without modification. SCE’s execution of these PPAs is consistent with SCE’s 2009 RPS Procurement Plan, which the Commission approved in Decision (D.) 09-06-018. Deliveries under the PPAs are fully recoverable in rates over the life of the contracts, subject to Commission review of SCE’s administration of the PPAs.

The following table summarizes the Project-specific features of the agreements:

<b>Generating Facility</b>	<b>Type</b>	<b>Term Years</b>	<b>MW Capacity</b>	<b>Annual Deliveries</b>	<b>Online Date</b>	<b>Project Location</b>
Quinto	Solar PV	20	110	275 GWh	December 1, 2014	Los Banos, CA
AVSP I	Solar PV	20	325	830 GWh	October 31, 2016	Rosamond, CA
AVSP II	Solar PV	20	276	730 GWh	October 31, 2016	Rosamond, CA

**BACKGROUND**

**Overview of the Renewables Portfolio Standard (RPS) Program**

The California RPS Program was established by Senate bill (SB) 1078, and has been subsequently modified by SB 107, SB 1036, and SB 2 (1x).<sup>1</sup> The RPS program is codified in the Public Utilities Code Sections 399.11-399.20. Under SB 2 (1x), the RPS program administered by the Commission requires each retail seller to increase its total procurement of eligible renewable energy resources so that 33 percent of retail sales are served by eligible renewable energy resources

<sup>1</sup> SB 1078 (Sher, Chapter 516, Statutes of 2002); SB 107 (Simitian, Chapter 464, Statutes of 2006); SB 1036 (Perata, Chapter 685, Statutes of 2007); SB 2 (1x) (Simitian, Chapter 1, Statutes of 2011, First Extraordinary Session).

no later than December 31, 2020.<sup>2</sup>

Additional background information about the Commission's RPS Program, including links to relevant laws and Commission decisions, is available at <http://www.cpuc.ca.gov/PUC/energy/Renewables/overview.htm> and <http://www.cpuc.ca.gov/PUC/energy/Renewables/decisions.htm>.

### **NOTICE**

Notice of AL 2568-E was made by publication in the Commission's Daily Calendar. SCE states that a copy of the Advice Letter was mailed and distributed in accordance with Section 3.14 of General Order 96-B.

### **PROTESTS**

No protests were received to this advice letter.

### **DISCUSSION**

**SCE requests Commission approval of renewable energy contracts with Solar Star California XIII, LLC, Solar Star California XIX, LLC and Solar Star California XX, LLC.**

On March 30, 2011, Southern California Edison (SCE) filed Advice Letter (AL) 2568-E. In AL 2568-E, SCE requested Commission approval of renewable energy contracts with Solar Star California XIII, LLC (Quinto), Solar Star California XIX, LLC (AVSP I) and Solar Star California XX, LLC (AVSP II), collectively known as the Solar Star Contracts. The Solar Star Contracts are the result of SCE's 2009 RPS solicitation.

SCE will be taking delivery of all of the energy, capacity attributes, green attributes and resource adequacy benefits from all three projects which will all be located in the state of California. The first point of delivery for all the contracts will be with the California Independent System Operator (CAISO) balancing

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<sup>2</sup> See SB 2 (1x), § 399.15(b)(2)(B).

authority area (BAA). Therefore, the Solar Star Contracts are considered bundled contracts for Renewable Portfolio Standards (RPS) compliance purposes.

All three projects will utilize SunPower's technologically proven single-axis tracker units and 425 watt mono-crystalline solar panels. The company has manufactured over 1 gigawatt (GW) of solar photovoltaic (PV) panels and has developed over 650 projects in eleven countries<sup>3</sup>.

The Quinto project will be located in Los Banos, California and will interconnect five miles north of the Los Banos substation to the Los Banos-Westley 230 kilovolt (kV) transmission line. Annual forecast generation from the 110 megawatt (MW) facility is 275 gigawatt hours (GWh) for a term of 20 years. The forecast commercial operation date (COD) is December 1, 2014 which coincides with SCE's RPS portfolio needs in the second half of this decade. The Quinto project has achieved several significant milestones and is highly viable.

The AVSP I project will be located in Kern County and Los Angeles County in the Tehachapi area of California and will interconnect at the proposed Whirlwind substation that will be built as part of the Tehachapi Renewable Transmission Project. Annual forecast generation from the 325 MW facility is 830 GWh for a term of 20 years. The forecast COD is October 31, 2016 which coincides with SCE's RPS portfolio needs in the second half of this decade. The AVSP I project has achieved several significant milestones and is highly viable.

Similar to AVSP I, the AVSP II project will be located in Kern County and Los Angeles County in the Tehachapi area of California and will interconnect at the proposed Whirlwind substation that will be built as part of the Tehachapi Renewable Transmission Project. Annual forecast generation from the 276 MW facility is 730 GWh for a term of 20 years. The forecast COD is October 31, 2016 which coincides with SCE's RPS portfolio needs in the second half of this decade. The AVSP II project has achieved several significant milestones and is highly viable.

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<sup>3</sup> <http://us.sunpowercorp.com>

**SCE requests that the Commission issue a resolution containing:**

1. Approval of the Solar Star Contracts in their entirety;
2. A finding that any electric energy sold or dedicated to SCE pursuant to the Solar Star Contracts constitutes procurement by SCE from ERRs for the purpose of determining SCE's compliance with any obligation that it may have to procure from ERRs pursuant to the RPS Legislation or other applicable law concerning the procurement of electric energy from renewable energy resources;
3. A finding that all procurement under the Solar Star Contracts count, in full and without condition, towards any annual procurement target established by the RPS Legislation or the Commission which is applicable to SCE;
4. A finding that all procurement under the Solar Star Contracts count, in full and without condition, towards any incremental procurement target established by the RPS Legislation or the Commission which is applicable to SCE;
5. A finding that all procurement under the Solar Star Contracts count, in full and without condition, towards the requirement in the RPS Legislation that SCE procure 20 percent (or such other percentage as may be established by law) of its retail sales from ERRs by 2010 (or such other date as may be established by law);
6. A finding that the Solar Star Contracts, and SCE's entry into the Solar Star Contracts, is reasonable and prudent for all purposes, including, but not limited to, recovery in rates of payments made pursuant to the Solar Star Contracts, subject only to further review with respect to the reasonableness of SCE's administration of the Solar Star Contracts; and
7. Any other and further relief as the Commission finds just and reasonable.

**Energy Division Evaluated the Proposed PPAs on the Following Grounds:**

- Consistency with SCE's 2009 RPS Procurement Plan
- Consistency with RPS Standard Terms and Conditions (STCs)
- Consistency with Least-Cost Best-Fit Requirements
- Cost Containment

- Price Reasonableness and Value
- Project Viability
- Portfolio Need
- Compliance with the Interim Greenhouse Gas Emissions Performance Standard (EPS)
- Procurement Review Group (PRG) Participation
- Independent Evaluator (IE) Requirements
- Compliance with the Minimum Standard Conditions

### **Consistency with SCE's 2009 RPS Procurement Plan**

California's RPS statute requires the Commission to direct each utility to prepare a Renewable Energy Procurement Plan (Plan) and then review and accept, modify, or reject the Plan prior to the commencement of a utility's annual RPS solicitation.<sup>4</sup> The Commission must then accept or reject proposed PPAs based on their consistency with the utility's approved Plan. SCE's stated preferences for projects in its 2009 Plan includes projects 1) locating near approved transmission infrastructure such as the Tehachapi Renewable Transmission Project, 2) interconnected to the CAISO BAA and located in California. The AVSP I and II projects will be located near the Tehachapi Renewable Transmission Project and all three projects are located in California and will interconnect to the CAISO BAA.

The PPAs are consistent with SCE's 2009 RPS Procurement Plan, approved by D.09-06-018 and subsequently amended by SCE.

### **Consistency with RPS Standard Terms and Conditions (STCs)**

The Commission adopted a set of standard terms and conditions (STCs) required in RPS contracts, four of which are considered "non-modifiable." The STCs were compiled in D.08-04-009 and subsequently amended in D.08-08-028. More recently in D.10-03-021, as modified by D.11-01-025, the Commission further refined these STCs.

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<sup>4</sup> Pub. Util. Code Section §399.14

The PPAs include the Commission-adopted RPS “non-modifiable” standard terms and conditions, as set forth in D.08-04-009, D.08-08-028, and D.10-03-021, as modified by D.11-01-025.

### **Consistency with SCE’s Least-Cost Best-Fit (LCBF) Requirements**

The LCBF decision directs the utilities to use certain criteria in their bid ranking.<sup>5</sup> The decision offers guidance regarding the process by which the utility ranks bids in order to select or “shortlist” the bids with which it will commence negotiations. SCE’s bid evaluation includes a quantitative and qualitative analysis, as well as each proposal’s absolute value to SCE’s customers and relative value in comparison to other proposals. The basic components of SCE’s LCBF evaluation and selection criteria and process for RPS contracts were established in the Commission’s LCBF Decisions D.03-06-071 and D.04-07-029. Consistent with these decisions, the three main steps undertaken by SCE are: (1) initial data gathering and verification; (2) a quantitative assessment of proposals, and; (3) adjustments to selection based on proposals’ qualitative attributes. SCE applied these criteria to the proposals received in the 2009 solicitation in order to establish a short-list of proposals from bidders with whom SCE would engage in contract discussions.

SCE examined the reasonableness of the PPAs and shortlisted the Solar Star Contracts as a result of the 2009 RPS Solicitation in conformance with its LCBF evaluation methodology. SCE determined that the Solar Star Contracts were reasonable and compared favorably to proposals SCE received in its 2009 solicitation.

The Commission finds that SCE adequately examined the reasonableness of the PPAs utilizing its LCBF methodology during the time the contract was being negotiated and executed.

### **Cost Containment**

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<sup>5</sup> See D.04-07-029

At the time SCE executed the Solar Star Contracts and submitted AL 2568-E, RPS cost containment was set out in section 399.15(c) (SB 107) and based on a market price referent (MPR) to assess whether a proposed RPS contract has above-market costs. Energy Division staff evaluated the Solar Star Contracts consistent with the Commission's rules in effect when AL 2568-E was submitted.<sup>6</sup>

Based on the Solar Star Projects' commercial operation dates, SCE estimates that the price of the PPAs are below the applicable 2009 MPR,<sup>7</sup> and therefore no AMFs are required.

### **Price Reasonableness and Value**

The Solar Star Contracts were selected from a group of projects shortlisted from SCE's 2009 RPS Solicitation. All three contracts were executed in January 2010 or approximately one month after the finalization of the shortlist. Therefore, the proper cohorts to measure the Solar Star Contracts' price reasonableness and value against are the shortlisted projects from the 2009 RPS Solicitation. See Confidential Appendix A for a discussion on the price reasonableness and value of the Solar Star Contracts.

The Commission finds that the price and value of the Solar Star Contracts are reasonable and competitive with contracts offered to SCE during the period that the PPAs were negotiated and executed.

### **Project Viability**

SunPower is a vertically integrated solar company that has successfully developed over 650 projects in 24 states and 11 countries. Furthermore, it has manufactured over 1 GW of solar panels ranking it as one of the largest solar PV manufacturers in the world.

The Solar Star facilities will utilize proven and mature solar PV technology that has been deployed widely and in operation for several years. Over 450 MW of SunPower systems are currently in operation globally.

<sup>6</sup> SB 2 (1x) became effective on December 10, 2011. The Commission is implementing a new cost containment framework in Rulemaking 11-05-005.

<sup>7</sup> See Resolution E-4298.



The Quinto, AVSP I and AVSP II projects have all achieved several critical milestones making them highly viable. See Confidential Appendix A for a discussion on the project viability of the Solar Star projects.

### **Portfolio Need**

The need for incremental RPS compliant renewable generation is based on SCE's projected RPS position for all three compliance periods established under SB2 (1X). When adjusting SCE's RPS portfolio to account for a certain amount of project failure, the need requirements for SCE to meet its RPS compliance requirements fall in the second half of this decade which coincides with the third compliance period and when the Solar Star Contracts are forecast to come online. Therefore, projected generation from the Solar Star Contracts meet the need requirements of SCE's RPS portfolio. See Confidential Appendix A for a discussion on SCE's need requirements and portfolio fit.

### **Compliance with the Interim Greenhouse Gas Emissions Performance Standard (EPS)**

California Public Utilities Code Section 8340 and 8341 require the Commission to consider emissions associated with new long-term (five years or greater) power contracts procured on behalf of California ratepayers.

D.07-01-039 adopted an interim EPS that establishes an emission rate for obligated facilities at levels no greater than the greenhouse gas (GHG) emissions of a combined-cycle gas turbine power plant. The EPS applies to all energy contracts for baseload generation that are at least five years in duration.<sup>8</sup> Generating facilities using certain renewable resources are deemed compliant with the EPS.<sup>9</sup>

The Solar Star Contracts meet the conditions for EPS compliance because it is for intermittent generation with a capacity factor less than 60 percent, whose

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<sup>8</sup> "Baseload generation" is electricity generation at a power plant "designed and intended to provide electricity at an annualized plant capacity factor of at least 60%." Pub. Utils. Code § 8340 (a).

<sup>9</sup> D.07-01-039, Attachment 7, p. 4

generation will be delivered into California.<sup>10</sup>

The proposed PPAs meet the conditions for EPS compliance established in D.07-01-039 because the facilities will produce electricity at a capacity factor of less than 60 percent and are therefore not a baseload power plant as defined in Public Utilities Code Section 8340(a).

### **Procurement Review Group (PRG) Participation**

The Procurement Review Group (PRG) process was initially established in D.02-08-071 as an advisory group to review and assess the details of the IOUs' overall procurement strategy, solicitations, specific proposed procurement contracts and other procurement processes prior to submitting filings to the Commission as an interim mechanism for procurement review.

Participants in the Procurement Review Group include representatives from the CPUC's Energy and Legal Divisions, the Division of Ratepayer Advocates, The Utility Reform Network, the Natural Resources Defense Council, California Utility Employees, the Union of Concerned Scientists, and the California Department of Water Resources.

SCE advised the PRG of its proposed shortlist of bids for its 2009 RPS solicitation on October 28, 2009 and on November 10, 2010 SCE briefed the PRG on the Solar Star Contracts.

Pursuant to D.02-08-071, SCE's Procurement Review Group participated in the review of the Solar Star Contracts, and SCE has complied with the Commission's rules for involving the PRG.

### **Independent Evaluator (IE) Requirements**

SCE retained an IE, Merrimack Energy Group, Inc. The IE joined and contributed to a number of conference calls and negotiation sessions, as well as in the review of email traffic, several versions of the proposed contract, and other documents exchanged by the parties. The IE also participated in the PRG review of the Solar Star Contracts.

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<sup>10</sup> D.07-01-039, Attachment 7, p. 7

Consistent with D.06-05-039, an Independent Evaluator (IE) oversaw SCE's RPS procurement process. Additionally, the IE reviewed the proposed contracts and compared the proposals to the results of the most recent bids received consistent with D.09-06-050.

### **Compliance with the Minimum Standard Conditions**

D.07-05-028 establishes a "minimum quantity" condition on the ability of utilities to count a contract of less than 10 years duration with an existing facility for compliance with the RPS program. In the calendar year that a short-term contract with an existing facility is executed, the utility must also enter into long-term contracts with new facilities equivalent to at least 0.25% of the utility's previous year's retail sales.

As new facilities, delivering pursuant to a contract greater than 10 years in length, the Solar Star Contracts will contribute to SCE's minimum quantity requirement established in D.07-05-028.

### **CONFIDENTIAL INFORMATION**

The Commission, in implementing Public Utility Code Section 454.5(g), has determined in D.06-06-066, as modified by D.07-05-032, that certain material submitted to the Commission as confidential should be kept confidential to ensure that market sensitive data does not influence the behavior of bidders in future RPS solicitations. D.06-06-066 adopted a time limit on the confidentiality of specific terms in RPS contracts. Such information, including price, is confidential for three years from the date the contract states that energy deliveries begin, except contracts between IOUs and their affiliates, which are public.

The confidential appendices, marked "[REDACTED]" in the public copy of this resolution, as well as the confidential portions of the advice letter, should remain confidential at this time.

### **RPS ELIGIBILITY AND CPUC APPROVAL**

Pursuant to Public Utility Code Section 399.13, the CEC certifies eligible renewable energy resources. Generation from a resource that is not CEC-certified cannot be used to meet RPS requirements. To ensure that only CEC-certified energy is procured under a Commission-approved RPS contract, the Commission has required standard and non-modifiable “eligibility” language in all RPS contracts. That language requires a seller to warrant that the project qualifies and is certified by the CEC as an “Eligible Renewable Energy Resource,” that the project’s output delivered to the buyer qualifies under the requirements of the California RPS, and that the seller uses commercially reasonable efforts to maintain eligibility should there be a change in law affecting eligibility.<sup>11</sup>

The Commission requires a standard and non-modifiable clause in all RPS contracts that requires “CPUC Approval” of a PPA to include an explicit finding that “any procurement pursuant to this Agreement is procurement from an eligible renewable energy resource for purposes of determining Buyer's compliance with any obligation that it may have to procure eligible renewable energy resources pursuant to the California Renewables Portfolio Standard (*Public Utilities Code Section 399.11 et seq.*), Decision 03-06-071, or other applicable law.”<sup>12</sup>

Notwithstanding this language, the Commission has no jurisdiction to determine whether a project is an eligible renewable energy resource, nor can the Commission determine prior to final CEC certification of a project, that “any procurement” pursuant to a specific contract will be “procurement from an eligible renewable energy resource.”

Therefore, while we include the required finding here, this finding has never been intended, and shall not be read now, to allow the generation from a non-RPS-eligible resource to count towards an RPS compliance obligation. Nor shall such finding absolve the seller of its obligation to obtain CEC certification, or the utility of its obligation to pursue remedies for breach of contract. Such contract enforcement activities shall be reviewed pursuant to the Commission’s authority to review the utilities’ administration of such contracts.

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<sup>11</sup> See, e.g. D. 08-04-009 at Appendix A, STC 6, Eligibility.

<sup>12</sup> See, e.g. D. 08-04-009 at Appendix A, STC 1, CPUC Approval.

## **COMMENTS**

Public Utilities Code §311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived or reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 30 days from today.

## **FINDINGS AND CONCLUSIONS**

1. The PPAs are consistent with SCE's 2009 RPS Procurement Plan, approved by D.09-06-018 and subsequently amended by SCE.
2. The PPAs include the Commission-adopted RPS "non-modifiable" standard terms and conditions, as set forth in D.08-04-009, D.08-08-028, and D.10-03-021, as modified by D.11-01-025.
3. Based on the Solar Star Contracts' projected commercial operation dates, SCE estimates that the price of the PPAs are below the applicable 2009 MPR, and therefore no AMFs are required.
4. The Commission finds that the price and value of the Solar Star Contracts are reasonable and competitive with contracts offered to SCE during the period that the PPAs were negotiated and executed.
5. The Quinto, AVSP I and AVSP II projects have all achieved several critical milestones making them highly viable.
6. The Commission finds that projected generation from the Solar Star Contracts meets the need requirements of SCE's RPS portfolio.
7. The PPAs meet the conditions for EPS compliance established in D.07-01-039 because the facilities will produce electricity at a capacity factor of less than 60 percent and are therefore not baseload power plants as defined in Public Utilities Code Section 8340(a).

8. Pursuant to D.02-08-071, SCE's Procurement Review Group participated in the review of the Solar Star Contracts, and SCE has complied with the Commission's rules for involving the PRG.
9. Consistent with D.06-05-039, an Independent Evaluator (IE) oversaw SCE's RPS procurement process. Additionally, the IE reviewed the proposed contracts and compared the proposals to the results of the most recent bids received consistent with D.09-06-050.
10. As a new facility, delivering pursuant to a contract greater than 10 years in length, the Solar Star Contracts will contribute to SCE's minimum quantity requirement established in D.07-05-028.
11. The confidential appendices, marked "[REDACTED]" in the public copy of this resolution, as well as the confidential portions of the advice letter, should remain confidential at this time.

**THEREFORE IT IS ORDERED THAT:**

1. The Power Purchase Agreements between Southern California Edison Company and Solar Star California XIII, LLC, Solar Star California XIX, LLC, and Solar Star California XX, LLC proposed in Advice Letter 2568-E are approved without modifications.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on January 12, 2011; the following Commissioners voting favorably thereon:

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PAUL CLANON  
Executive Director

## Confidential Appendix A

Price Reasonableness, Value, RPS Portfolio Need  
and Project Viability

[REDACTED]

## Confidential Appendix B

### Contract Terms and Conditions

[REDACTED]



## Confidential Appendix C

### Independent Evaluator Report's Conclusion

[REDACTED]