PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ITEM #
I.D. # 11487

ENERGY DIVISION **RESOLUTION E-4522**
September 13, 2012

REDACTED

R E S O L U T I O N

Resolution E-4522. Southern California Edison Company requests approval of five amended and restated purchase power agreements with Solar Partners XVI LLC, Solar Partners XVII LLC, Solar Partners XVIII LLC, Solar Partners XIX LLC, and Solar Partners XX LLC.

PROPOSED OUTCOME: This Resolution denies cost recovery for Solar Partners XVI LLC and Solar Partners XVII LLC, and approves cost recovery for Solar Partners XVIII LCC, Solar Partners XIX LLC and Solar Partners XX LLC.

ESTIMATED COST: Actual costs are confidential at this time.

By Advice Letter 2339-E filed on April 6, 2009, Advice Letter 2339-E-A filed on May 20, 2009, Advice Letter 2339-E-B filed on June 10, 2010, Advice Letter 2339-E-C filed on November 28, 2011 and Advice Letter 2339-E-D filed on February 1, 2012.

SUMMARY

Southern California Edison Company requests Commission approval for five amended and restated purchase power agreements with Brightsouce Energy, Inc.

Southern California Edison Company (SCE) is requesting approval of amended and restated purchase power agreements (PPAs) for five new solar thermal projects to be located in California for a total output capacity of 1,000 megawatts (MW) and total annual expected generation of 3,345 gigawatt hours (GWh). All five special purpose entities – Solar Partners XVI LLC; Solar Partners XVII LLC; Solar Partners XVIII LLC; Solar Partners XIX LLC; and Solar Partners XX LLC (BSE Projects or BSE PPAs) – are wholly owned by Brightsource Energy, Inc.

(BSE), a private company based in Oakland, CA that specializes in developing solar thermal power tower technology for utility-scale projects. All five projects are contracted to achieve 200 MW of capacity each and will be located in California.

Two of the five projects, Solar Partners XVI (Rio Mesa 1) an Solar Partners XVII (Rio Mesa 2), are contracted to utilize solar power tower technology without molten salt storage and achieve annual generation of 573 GWh each for a term of 20 or 25 years with deliveries to commence in late 2015.

Three of the five projects, Solar Partners XVIII (Siberia 1), Solar Partners XIX (Siberia 2), and Solar Partners XX (Sonoran West) are contracted to utilize solar power tower technology with molten salt storage and achieve annual generation of 733 GWh each for a term of 20 or 25 years with deliveries to commence in late 2016 - early 2017.

This resolution denies cost recovery for the Rio Mesa 1 and Rio Mesa 2 PPAs. The projects compare poorly on price and value relative to other solar thermal projects offered to SCE at the time the amended and restated PPAs were being negotiated and executed. SCE had the option to choose from 18 of 19 solar thermal projects totaling over 2,300 MW in combined capacity resulting from its 2011 RPS Solicitation[1] that were all materially higher in value than the Rio Mesa 1 and Rio Mesa 2 projects.

This resolution approves cost recovery for the Siberia 1, Siberia 2 and Sonoran West PPAs and approves the three PPAs with modifications. SCE's execution of these PPAs is consistent with SCE's 2011 RPS Procurement Plan, which the Commission approved in Decision (D.) 11-04-030. 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.

[1] The CPUC received SCE's final shortlist report from its 2011 RPS Solicitation on November 7, 2011. The advice letter for the five amended and restated Brightsource PPAs was submitted to the CPUC on November 28, 2011. Therefore, projects resulting from the 2011 RPS Solicitation are directly comparable to the five restated and amended Brightsource PPAs.

These three projects compare favorably on a price and value basis relative to other solar thermal projects offered to SCE at the time the amended and restated PPAs were being negotiated and executed. They rank higher in value than 18 of 19 solar thermal projects offered totaling over 2,300 MW in combined capacity resulting from SCE's 2011 RPS Solicitation. Furthermore, these projects incorporate molten salt storage capacity which will allow SCE to optimize generation from these facilities based on changing system requirements. This unique attribute decreases renewable integration risk and provides more value for ratepayers.

PPA Modifications

SCE must seek approval from the Commission to amend any BSE PPA through a Tier 2 Compliance filing if the point of interconnection changes. SCE must verify with an Independent Evaluator that the renewable premium for the PPA(s) is not negatively impacted due to a change in the point of interconnection. If the renewable premium is negatively impacted for the PPA(s), SCE must file a supplemental Tier 3 Advice Letter requesting approval of the amended and restated PPA(s).

SCE must file a Tier 2 Compliance filing within 10 days of Commission approval of the Siberia 1 and Siberia 2 and Sonoran West PPAs to amend the PPAs to include the required contract modifications.

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

Generating Facility	Type	Term Years	MW Capacity	Annual Deliveries	Online Date	Project Location
Rio Mesa 1 (XVI)	Power Tower without Storage	20/25	200	573 GWh	9/30/2015	Riverside Co., CA
Rio Mesa 2 (XVII)	Power Tower without Storage	20/25	200	573 GWh	12/31/2015	Riverside Co., CA
Siberia 1 (XVIII)	Power Tower with Storage	20/25	200	733 GWh	12/31/2016	San Bernardino Co., CA
Siberia 2 (XIX)	Power Tower with Storage	20/25	200	733 GWh	12/31/2016	San Bernardino Co., CA

Sonoran West (XX)	Power Tower with Storage	20/25	200	733 GWh	3/31/2017	Riverside Co., 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).[2] The RPS program is codified in Public Utilities Code Sections 399.11-399.31.[3] Under SB 2 (1X), the RPS program administered by the Commission requires each retail seller to procure eligible renewable energy resources so that the amount of electricity generated from eligible renewable resources be an amount that equals an average of 20 percent of the total electricity sold to retail customers in California for compliance period 2011-2013; 25 percent of retail sales by December 31, 2016; and 33 percent of retail sales by December 31, 2020.[4]

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 2339-E, AL 2339-E-A, AL 2339-E-B, AL 2339-E-C and AL 2339-E-D 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.

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[2] 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).

[3] All further references to sections refer to Public Utilities Code unless otherwise specified.

[4] D.11-12-020 established a methodology to calculate procurement requirement quantities for the three different compliance periods covered in SB 2 (1X) (2011-2013, 2014-2016, and 2017-2020).

PROTESTS AND RESPONSES

Protest and response letters regarding AL 2339-E-C were filed at three different points in time; 1) during the regular protest period 20 days after the issuance of AL 2339-E-C on November 28, 2011; 2) during a five day period beginning on June 15, 2012 when Energy Division re-opened the protest period; and 3) on July 19, 2012 when Energy Division accepted a late response from the United Stated Department of Defense. The discussion of protests and responses herein is segmented into these three different periods and are referred to as Period 1, Period 2 and Period 3.

Period 1

The Division of Ratepayer Advocates (DRA) timely protested AL 2339-E-C on December 19, 2011. AL 2339-E-C significantly amended and restated the five BSE PPAs by changing PPA pricing, technology, site location, points of interconnection, delivery security requirements and in-service dates. SCE responded to DRA's protest letter on December 23, 2011.

DRA recommends in its protest letter that the Commission deny cost recovery for all five BSE PPAs because they are not competitive with projects offered to SCE resulting from its 2011 RPS Solicitation. SCE responded to DRA's protest by suggesting that the proper cohorts to measure the BSE PPAs against are contracts resulting from SCE's 2008 RPS Solicitation.

Period 2

On June 8, 2012, a late joint protest was submitted by The National Resources Defense Council (NRDC), Defenders of Wildlife and the Sierra Club (collectively, the "Environmental Groups") opposing development of the Siberia 1 and Siberia 2 projects. On June 15, 2012 Energy Division accepted the late protests filed by the Environmental Group and re-opened the protest period for five business days. As a result, four additional protest letters were submitted by 1) the Western Power Trading Forum (WPTF), 2) The Wilderness Society, 3) the Center for Biological Diversity, and 4) The Desert Protective Council. In addition, California Wind Energy Association (CalWEA) submitted a response but did not voice opposition to the Siberia 1 and Siberia 2 projects. Protest letters from The Wilderness Society, the Center for Biological Diversity, and the Desert Protective Council will not be considered because they failed to serve their protest to the service list as required. Both SCE and BSE responded to all protests on June 29, 2012.

The joint protest submitted by the NRDC, Defenders and Wildlife and the Sierra Club, as well as the protest submitted by the WPTF – all oppose the development of the Siberia 1 and Siberia 2 projects. The protest letters of all these parties provide the following comments;

1) Siberia 1 and 2 have not yet been subject to environmental review under the California Environmental Quality Act (CEQA) process or National Environmental Policy Act (NEPA) process.
2) The projects are located in Pisgah Valley, CA which is an environmentally sensitive area abundant in important ecological and land resources.
3) The proposed generation tie to the sub-station (gen-tie) for the Siberia projects crosses through an Area of Critical Environmental Concern (ACEC) designated by the Bureau of Land Management (BLM) and the Mojave Trails National Monument proposed through legislation by United States Senator Dianne Feinstein.
4) Permitting delays may result from significant environmental opposition and may result in possible litigation.
5) Project failure may result due to the inability of the Siberia projects to achieve the required in-service date to be eligible for the 30% federal investment tax credit which expires at the end of 2016.
6) Approval of the Siberia projects undermines ongoing planning efforts such as the Desert Renewable Energy Conservation Plan (DRECP) which is being implemented to guide renewable energy development in less environmentally sensitive areas.

Both SCE and BSE responded to the late protests by stating that they believe that the environmental concerns listed above are out of the scope of the California Public Utilities Commission's (CPUC) Advice Letter process and that the appropriate proceeding for environmental groups to express their concerns is in the environmental review proceeding at the California Energy Commission (CEC).

SCE also believes that concerns about project failure due to delays in permitting issues are premature given that an environmental review has not yet been

completed. SCE states that it is meaningless to question the viability of a project based on a variety of premature assumptions.

Lastly, BSE comments in its response that the Siberia projects are not in the Pisgah Valley. It is only the gen-tie for the projects that crosses through the Pisgah Valley. The site locations for the Siberia projects are in Bristol Valley.

In its protest letter dated June 22, 2012, the Western Power Trading Forum (WPTF) expressed concern that SCE did not comply with Commission requirements that are applicable to bilaterally negotiated contracts. In D.06-10-019, the Commission established a rule that requires a bilaterally contract to be "reasonably priced."[5] WPTF contends that the BSE Contracts are not reasonably priced compared to projects offered to SCE in its 2011 RPS Solicitation and that AL 2339-E-C cannot be demonstrated to comply with established Commission rules for the approval of the BSE Contracts.

In response to WPTF's concern that the BSE Contracts are not price competitive, SCE states that the comparison of the BSE Contracts to contracts offered in the 2011 RPS Solicitation is not apt. SCE notes that negotiations for the original PPAs were completed in early 2009 which were cost competitive to projects from SCE's 2008 RPS Solicitation. In addition, BSE comments that the Independent Evaluator did not take into consideration other unique benefits that are associated with solar thermal projects and that the Commission should not be persuaded by oversimplified price comparisons.

In its response dated June 22, 2012, CalWEA highlighted policy concerns associated the contact amendment process and commented that lengthily negotiation and approval processes and the Commission's permissive approach to PPA amendments encourages speculative bidding. CalWEA believes the Commission should consider whether allowing modifications of several substantial contract terms without the benefit of competition would encourage speculative bids in future RPS Solicitations.

CalWEA's concerns are relevant but out of scope for the purposes of this resolution. There is currently an effort underway in R.11-05-005 to streamline

[5] D.06-10-019, at pp. 31-32

and improve the RPS procurement process. CalWEA should raise its concerns in that forum.

Period 3

On July 19, 2012 the United States Department of Defense (DOD) filed a response expressing concerns about the location of the Siberia 1 and Siberia 2 projects relative to the Marine Corps Air Ground Combat Center (MCAGCC). The Siberia projects will be located directly adjacent to the northern boundary of the MCAGCC. On February 2, 2012 MCAGCC staff met with representatives from BSE and expressed their concerns about the Siberia projects. These concerns are outlined in the letter the Department of Defense submitted to the Commission on July 19, 2012 and consist of the following:

1) The proposed project lies directly underneath restricted airspace and would call for the creation of an "avoidance area." The MCAGCC provides training opportunities that are unique and essential to the Marine Corps, and cannot be conducted anywhere else. Placement of the Siberia projects in this location would "significantly detract" from the Marine Corps training efforts.
2) The Siberia projects would create "thermal plumes" hazardous to military aviation. Thermal plumes interfere with pilot infrared viewing capability during nighttime operations and makes target acquisition more difficult and potentially unsafe.
3) The Siberia project area consists of desert tortoise habitat. If conservation efforts require the release of hundreds of desert tortoises beyond the Siberia projects' borders, this could place "intense pressure" on the lands at MCAGCC and create significantly more training disruptions. When a desert tortoise is found in the path of an exercise force, the training exercise can be shut down for 4-5 hours. An increase in disruptions degrades the quality and scope of training at MCAGCC.
4) Ordnance from the entire Marine Corps inventory, including 2,000 pound bombs, is dropped in the MCAGCC training areas. This has the potential to interfere with the projects and damage heliostats. If this happens, the Marine Corps will be required to constrain their training activities in the vicinity of the Siberia projects.

DISCUSSION

SCE requests Commission approval for five amended and restated purchase power agreements with BSE.

On April 6, 2009 SCE filed AL 2339-E requesting approval of seven PPAs with Solar Partners 1, LLC (Ivanpah) and Solar Partners XVI though XXI, LLC, each a subsidiary of BSE. The Commission approved the Ivanpah PPA on August 12, 2010 in resolution E-4261 and deferred judgment on Solar Partners XVI though XXI, LLC because of siting issues. All seven projects were shortlisted as a result of SCE's 2008 RPS Solicitation.

Six weeks after the PPAs for Solar Partners XVI through XXI, LLC were executed, Dianne Feinstein, Unites States Senator of the United States, announced plans to seek preservation of 100,000 acres of desert land (the "Feinstein Proposal") which included the site locations for the respective PPAs. As a result, BSE submitted formal site change requests to SCE on January 25, 2011. On August 15, 2011 SCE and BSE signed a letter agreement and Term Sheet which set out the terms of the amended and restated PPAs which included terminating one of the six PPAs ("Solar Partners XVI, LLC"), changing the project site location in the remaining five PPAs ("Rio Mesa 1 and 2", "Siberia 1 and 2", "Sonoran West") and modifying the technology utilized in three of the five remaining PPAs ("Siberia 1 and 2", "Sonoran West") which includes the addition of molten salt storage.

On November 28, 2011, SCE filed AL 2339-E-C which seeks Commission approval of the five amended and restated PPAs (BSE Contracts) resulting from the Letter Agreement and Term Sheet signed on August 15, 2011. On February 1, 2012, SCE filed 2339-E-D which modifies three of the five PPAs ("Siberia 1 and 2", "Sonoran West") to incorporate performance parameters associated with the addition of molten salt storage capacity.

Rio Mesa 1 and Rio Mesa 2 are proposed to interconnect at the Colorado Substation and reach commercial operation by September 20, 2015 and December 21, 2015 respectively. Estimated annual generation from each 200 MW facility is 573 GWh for a term of 20 years with the option for SCE to extend the term to 25 years. The projects will utilize BSE's power tower technology without the use of molten salt storage.

Siberia 1 and Siberia 2 are proposed to interconnect at the Pisgah Substation and reach commercial operation by December 31, 2016. Estimated annual generation from each 200 MW facility is 733 GWh for a term of 20 years with the option for SCE to extend the term to 25 years. The projects will also utilize BSE's power

tower technology with the use of molten salt storage. The forecast increase in annual generation relative to the Rio Mesa projects (i.e. 733 GWh versus 573 GWh) is related to an upgrade in the power tower technology and addition of molten salt storage capacity.

Sonoran West is proposed to interconnect at the Colorado River Substation and reach commercial operation by March 31, 2017 for a term of 20 years. Estimated annual generation from the 200 MW facility is 733 GWh for a term of 20 years with the option for SCE to extend the term to 25 years. The project will also utilize Brightsource's power tower technology with the use of molten salt storage and the facility will utilize the same configuration as the Siberia 1 and Siberia 2 projects.

SCE requests that the Commission issue a resolution containing the following findings:

1. Approval of each of the Brightsource Amended & Restated PPAs in their entirety;
2. A finding that the Brightsource Amended & Restated PPAs are consistent with SCE's 2011 RPS Procurement Plan;
3. A finding that the Brightsource Amended & Restated PPAs are compliant with the Emissions Performance Standard;
4. A finding that any procurement pursuant to the Brightsource Amended & Restated PPAs is procurement from an eligible renewable energy resource for purposes of determining SCE'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;
5. A finding that the Brightsource Amended & Restated PPAs, and SCE's entry into the BSE Amended & Restated PPSAs, are reasonable and prudent for all purposes, including, but not limited to, recovery in rates of payments made pursuant to the Brightsoure Amended & Restated PPAs and administrative costs associated with the Brightsource Amended & Restated PPAs, subject only to further review with respect to the reasonableness of SCE's administration of the Brightsource Amended & Restated PPAs; and,
6. 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 2011 RPS Procurement Plan
- Consistency with RPS Standard Terms and Conditions
- Consistency with Least-Cost Best-Fit Requirements
- Price Reasonableness and Value
- Project Viability
- Portfolio Need
- Independent Evaluator Requirements and Recommendations
- Procurement Review Group Participation
- Compliance with the Interim Greenhouse Gas Emissions Performance Standard
- Compliance with the Minimum Quantity Condition for Long-Term Contracts

Consistency with SCE's 2011 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.[6] The Commission must then accept or reject proposed PPAs based on their consistency with the utility's approved Plan. SCE's stated that its evaluation criteria would consider the benefit of 1) offers with facilities located near approved transmission infrastructure, and 2) offers with facilities that have a first point of interconnection to a California balancing authority area[7] within the Western Electricity Coordinating Council. Also, SCE informed potential participants to SCE's 2011 RPS solicitation that SCE preferred offers that could

[6] Section 399.13

[7] In D.11-12-052, the Commission determined that there are currently five California balancing authority areas that meet the criteria in Section 399.12(d). These California balancing authority areas are: California Independent System Operator (CAISO), Balancing Authority of Northern California (formerly Sacramento Municipal Utility District), Imperial Irrigation District, Los Angeles Department of Water and Power, and Turlock Irrigation District.

initially deliver in later half of the decade (i.e., 2016-2020) when SCE is expected to have a need for incremental RPS generation.[8]

All of the BSE Contracts are contracted to initially deliver energy and capacity beginning in late 2015, which coincides with SCE's preference outlined in its 2011 RPS Procurement Plan. In addition, all five projects are contracted to be located in California and interconnected to a California balancing authority area. Lastly, all projects are located near approved transmission infrastructure.

The BSE Contracts are consistent with SCE's 2011 RPS Procurement Plan, approved by D.11-04-030.

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.

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.[9] 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.

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[8] *See* SCE's "2011 RENEWABLE RFP BIDDERS CONFERENCE" presentation (May 26, 2011). Most recently accessed on April 26, 2012: http://asset.sce.com/Documents/Shared/2011_SCEBiddersPresentation.pdf

[9] *See* D.04-07-029

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.

In AL 2339-E-C, SCE evaluated the BSE Contracts against projects resulting from its 2011 RPS Solicitation. Since the execution of the original PPAs, SCE and BSE have amended and restated the PPAs four times over a period of over two years. The site location, permitting and transmission upgrade requirements for all five PPAs have changed and the technology for three of the five PPAs has changed. In addition, the development security has increased and transmission cost caps have been included for all five PPAs, all of which are major revisions to the original contracts. While these projects may have resulted from SCE's 2008 RPS Solicitation, they are in essence very different projects from when they were originally submitted for Commission approval in 2009. Therefore, the BSE Contracts represent new projects.

Consequently, it was correct for SCE to compare the BSE amended and restated PPAs that were significantly changed after the 2011 RPS Solicitation to projects that bid into SCE's 2011 RPS Solicitation. In this regard, SCE contradicts itself by stating in is response to WPTF and DRA's protest letters, that the BSE amended and restated PPAs should be compared to the 2008 RPS Solicitation.

The Rio Mesa 1 and Rio Mesa 2 PPAs are uncompetitive with solar thermal contracts offered to SCE in its 2011 RPS Solicitation and all five PPAs are uncompetitive with contracts that SCE shortlisted from its 2011 RPS Solicitation. Yet, SCE still chose to execute contracts for all five of the BSE PPAs. Therefore, it is found that SCE did not adequately utilize its LCBF methodology.

<u>SCE did not adequately utilize its LCBF methodology at the time the BSE Contracts were negotiated and executed.</u>

<u>The protests of Advice Letter (AL) 2339-E-C by the Division of Ratepayer Advocates (DRA) and the Western Power Trading Forum (WPTF) are accepted because the Commission concurs that the amended and restated BSE Contracts should be compared to comparable projects resulting from SCE's 2011 RPS Solicitation.</u>

Price Reasonableness and Value

Because the BSE PPAs under consideration in AL 2339-E-C have 1) project attributes, 2) performance parameters, and 3) contract terms and conditions that are distinctly different than the predecessor projects submitted to the Commission for approval on April 6, 2009, the BSE PPAs are essentially new contracts and should be evaluated accordingly. Therefore, it is inappropriate to compare the BSE Contracts to contracts resulting from the 2008 RPS Solicitation. The proper projects to compare these five PPAs against are solar thermal (trough and power tower) projects offered in SCE's 2011 RPS Solicitation.[10]

Rio Mesa 1 and Rio Mesa 2

When benchmarked against other solar thermal projects offered in SCE's 2011 RPS Solicitation, Rio Mesa 1 and Rio Mesa 2 are highly uncompetitive. Specifically, 18 of 19 solar thermal projects totaling over 2,300 MW in combined capacity resulting from SCE's 2011 RPS Solicitation were all materially higher in value than the Rio Mesa 1 and Rio Mesa 2 projects. Furthermore, the Independent Evaluator (IE) for AL 2339-E-C recommends rejecting the Rio Mesa 1 and Rio Mesa 2 PPAs for similar reasons. Consequently, the Commission denies cost recovery for the Rio Mesa 1 and Rio Mesa 2 projects because they are not reasonably priced and valued relative to a significantly large number of options that SCE had at its disposal.

The Commission disagrees with BSE's reply comments to WPTF's protest letter that the IE did not take into consideration other unique benefits that are associated with solar thermal projects. The renewable premiums that were used for comparison purposes account for the incremental energy, capacity and ancillary services value associated with thermal solar projects. The IE also verified the renewable premiums calculated by SCE.

It is true that the Commission assumes zero value for avoided integration costs for comparison purposes. However, integration costs adders were excluded in all renewable premium calculations for all solar thermal projects that bid into SCE's 2011 RPS Solicitation. Therefore, because the Independent Evaluator and the Commission compared the BSE PPAs against other solar thermal projects, the

[10] The CPUC received SCE's final shortlist report from its 2011 RPS Solicitation on November 7, 2011 which is approximately two weeks before SCE filed AL 2339-E-C.

exclusion of an avoided integration cost adder does not bias the results. Furthermore, the Commission did not compare the BSE PPAs to projects shortlisted in SCE's 2011 RPS Solicitation because the exclusion of an avoided integration cost adder has the potential to bias the results and put solar thermal projects at a distinct disadvantage.

BSE provided Energy Division with a synthesis report on April 11, 2012 that documents all of the research that has been conducted to date on the potential value that thermal solar provides for avoiding integration costs. The range for this value is between $1-8/MWh. Even if SCE was to include this value to the Rio Mesa 1 and Rio Mesa 2 projects, they would still compare significantly poorer in value than other solar thermal projects offered to SCE resulting from its 2011 RPS Solicitation.

Siberia 1, Siberia 2 and Sonoran West

When benchmarked against other solar thermal projects offered in SCE's 2011 RPS Solicitation, Siberia 1, Siberia 2 and Sonoran West were competitive. Specifically, the Siberia 1, Siberia 2 and Sonoran West projects rank higher in value than 18 of 19 solar thermal projects offered totaling over 2,300 MW in combined capacity. Consequently, the Commission approves cost recovery for the Siberia 1, Siberia 2 and Sonoran West projects

The Siberia 1, Siberia 2 and Sonoran West contracts allow BSE to change the project site if needed. To ensure that the value to ratepayers is maintained, SCE must seek approval from the Commission to amend any BSE PPA through a Tier 2 Compliance filing if the point of interconnection changes. SCE must verify with an Independent Evaluator that the renewable premium for the PPA(s) is not negatively impacted. If the renewable premium is negatively impacted for the PPA(s), SCE must file a supplemental Tier 3 Advice Letter requesting approval of the amended and restated PPA(s).

SCE must file a Tier 2 Compliance filing within 10 days of Commission approval of the Siberia 1 and Siberia 2 and Sonoran West PPAs to amend the PPAs to include the required contract modifications.

The Commission finds that the price and value of the Rio Mesa 2 and Rio Mesa 2 contracts are not competitive with other comparable solar thermal contracts offered to SCE.

The Commission finds that the price and value of the Siberia 1, Siberia 2 and Sonoran West contracts are competitive with other comparable solar thermal contracts offered to SCE.

Payments made by SCE under the Siberia 1, Siberia 2 and Sonoran West contracts are fully recoverable in rates over the life of the PPAs, subject to Commission review of SCE's administration of the PPAs.

SCE must seek approval from the Commission to amend any BSE PPA through a Tier 2 Compliance filing if the point of interconnection changes. SCE must verify with an Independent Evaluator that the renewable premium for the PPA(s) is not negatively impacted. If the renewable premium is negatively impacted for the PPA(s), SCE must file a supplemental Tier 3 Advice Letter requesting approval of the amended and restated PPA(s).

SCE must file a Tier 2 Compliance filing within 10 days of Commission approval of the Siberia 1 and Siberia 2 and Sonoran West PPAs to amend the PPAs to include the required contract modifications.

Project Viability

The BSE Projects are all in the early stages of development and have not yet achieved important project milestones. The IE for AL 2339-E-C states that projects appear to be fairly viable and all the projects' siting and permitting processes appear to be on schedule. Because the online date for all five projects are relatively far into the future it is not uncommon that key project milestones have not yet been achieved. However, significant hurdles may exist that could compromise the viability of one or more of the BSE Projects.

Permitting Delays

Late protests filed by NRDC et al. that protest the approval of the Siberia 1 and Siberia 2 projects raise environmental siting concerns which go beyond the typical scope of the Commission's Advice Letter process. However, if environmental permitting issues delay the development of the Siberia 1 and Siberia 2 projects, there is a risk that the projects get delayed to the point where they are ineligible to receive the federal 30% investment tax credit (ITC), thus compromising the economics of the projects. The Commission will not pre-judge the success of the Siberia 1 and Siberia 2 projects based on the assumption that 1) permitting for the projects will be delayed, and 2) the federal ITC expires at the end of 2016 and agrees with SCE's response that the Commission should not pre-

judge the viability of a project based on pre-mature assumptions. However, the Commission believes it is prudent to highlight that the possibility of a risk exists. If the projects fail to get built there is minimal ratepayer risk.

Network Upgrade Costs

All of the BSE projects' currently have CAISO interconnection requests but no project has a signed Large Generator Interconnection Agreement (LGIA). This is typical for projects at this stage of development. However, SCE includes a provision in the amended and restated PPAs that allows SCE to terminate any PPA for which the transmission upgrade costs exceed the transmission cost cap as defined in each PPA. BSE has the option of paying down the difference between the upgrade costs in the LGIA and the transmission cost cap. In the event that that the upgrade costs for any of the PPAs is above the cap, and the difference is too great for BSE to pay down financially, the viability of any one of these projects is compromised. See Confidential Appendix A for a more detailed discussion.

Proximity of Siberia 1 and Siberia 2 to a Military Test Site

The various concerns that the Department of Defense (DOD) addresses in its response dated July 20, 2012 indicate that the Siberia 1 and Siberia 2 projects are potentially not ideally located and have the potential to degrade the use of the 29 Palms military base for training. In particular, the DOD is concerned about the Siberia projects' proximity to a restricted fly zone, thermal plumes from the power towers, desert tortoise mitigation issues, and the negative effect of ordnance on the BSE facilities. BSE is aware of the siting issues with the Siberia projects and the DOD's concerns. The Commission will not pre-judge the outcome of what appears to be material issues. However, it must be recognized that the proximity of Siberia 1 and Siberia 2 to a military base has the potential to decrease the viability of the 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 Public Utilities Code Section 399.15 (b)(1) as implemented by Decision (D)11-12-020. 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. The BSE Contracts are forecast to come online between late-2015 and

early-2017, thus delivering energy during the latter half this decade when SCE has a need for new renewable generation.

Therefore, projected generation from the BSE Contracts meets the need requirements of SCE's RPS portfolio.

Independent Evaluator (IE)

Sedway Consulting, Inc. was selected as the Independent Evaluator for the amended and restated BSE PPAs. According to the IE report, Sedway was asked to participate as an IE for the amended and restated BSE PPAs on October 12, 2011, slightly before the contracts were executed. Therefore, Sedway was not in a position to monitor the negotiations or participate in the discussions in SCE's Energy Procurement Risk Management Committee (epRMC) or Procurement Review Group (PRG) meetings.

Sedway initially provided an IE report to the Commission which was included in AL 2339-E-C. In June, 2012 the Commission requested a revised version of the IE report that would include additional information and recommendations to approve or reject each of the BSE PPAs. Sedway furnished the revised IE report to the Commission via email on June 22, 2012. In the revised report, the IE recommended rejecting Rio Mesa 1, Rio Mesa 2, and Sonoran West and approving Siberia 1 and Siberia 2. In its conclusions, the IE states

> "… Sedway Consulting recommends the approval of the Siberia 1 and 2 PPAs and the rejection of the Rio Mesa 1 and 2 and Sonoran West PPAs…The Siberia 1 and 2 PPAs have the best (lowest) renewable premiums and sufficient contractual protections to ensure that SCE can terminate the PPAs if the projects' transmission network upgrade costs get too high."

The Independent Evaluator recommends rejecting Rio Mesa 1 and Rio Mesa 2 and Sonoran West, and recommends approving Siberia 1 and Siberia 2. The revised Independent Evaluator report is provided in Confidential Appendix B.

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

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 amended and restated PPAs with BSE on a conference call on September 28, 2011.

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

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

California Public Utilities Code Sections 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.**11** Generating facilities using certain renewable resources are deemed compliant with the EPS.[12]

The BSE Contracts meet the conditions for EPS compliance because the contracts are for intermittent generation with a capacity factor less than 60 percent.[13]

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[11] "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).

[12] D.07-01-039, Attachment 7, p. 4

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).

Long-Term Contracting Requirement

In D.12-06-038, the Commission established a long-term contracting requirement that must be met in order for retail sellers to count RPS procurement from contracts less than 10 years duration for compliance with the RPS program.[14] In order for the procurement from any short-term contract(s) signed after June 1, 2010 to count for RPS compliance the retail seller must execute long-term contract(s) in the same compliance period in which the short-term contract(s) is signed. The volume of expected generation in the long-term contract(s) must be sufficient to cover the volume of generation from the short-term contract(s).[15]

Because the PPAs are greater than 10 years in length, the approved PPAs will contribute to SCE's long-term contracting requirement established in D.12-06-038.

CONFIDENTIAL INFORMATION

The Commission, in implementing Public Utilities 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

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[13] D.07-01-039, Attachment 7, p. 7

[14] For the purposes of the long-term contracting requirement, contracts of less than 10 years duration are considered "short-term" contracts. (D.12-06-038)

[15] Pursuant to D.12-06-038, the methodology setting the long-term contracting requirement is: 0.25% of Total Retail Sales in 2010 for the first compliance period; 0.25% of Total Retail Sales in 2011-2013 for the second compliance period; and 0.25% of Total Retail Sales in 2014-2016 for the third compliance period.

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 Utilities 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.[16]

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.), D.11-12-020 and D.11-12-052, or other applicable law."[17]

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."

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[16] *See, e.g.* D. 08-04-009 at Appendix A, STC 6, Eligibility.

[17] *See, e.g.* D. 08-04-009 at Appendix A, STC 1, CPUC Approval.

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.

COMMENTS

Public Utilities Code section 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 nor 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 BSE Contracts are consistent with SCE's 2011 RPS Procurement Plan, approved by D.11-04-030.
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. SCE did not adequately utilize its LCBF methodology at the time the BSE Contracts were negotiated and executed.
4. The Commission finds that the price and value of the Rio Mesa 2 and Rio Mesa 2 contracts are not competitive with other comparable solar thermal contracts offered to SCE.
5. The Commission finds that the price and value of the Siberia 1, Siberia 2 and Sonoran West contracts are competitive with other comparable solar thermal contracts offered to SCE.

6. Payments made by SCE under the Siberia 1, Siberia 2 and Sonoran West contracts are fully recoverable in rates over the life of the PPAs, subject to Commission review of SCE's administration of the PPAs.

7. SCE must seek approval from the Commission to amend any BSE PPA through a Tier 2 Compliance filing if the point of interconnection changes. SCE must verify with an Independent Evaluator that the renewable premium for the PPA(s) is not negatively impacted. If the renewable premium is negatively impacted for the PPA(s), SCE must file a supplemental Tier 3 Advice Letter requesting approval of the amended and restated PPA(s).

8. SCE must file a Tier 2 Compliance filing within 10 days of Commission approval of the Siberia 1 and Siberia 2 and Sonoran West PPAs to amend the PPAs to include the required contract modifications.

9. Projected generation from the BSE Contracts meets the need requirements of SCE's RPS portfolio.

10. The Independent Evaluator recommends rejecting Rio Mesa 1 and Rio Mesa 2 and Sonoran West, and recommends approving Siberia 1 and Siberia 2.

11. 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.

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

13. 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 base load power plant as defined in Public Utilities Code Section 8340(a).

14. Because the Siberia 1, Siberia 2 and Sonoran West contracts are greater than 10 years in length, the contracts will contribute to SCE's long-term contracting requirement established in D.12-06-038.

15. Procurement pursuant to the PPAs is procurement from an eligible renewable energy resource for purposes of determining SCE'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.), D.11-12-020 and D.11-12-052, or other applicable law.

16. The immediately preceding finding shall not be read to allow generation from a non-RPS eligible renewable energy resource under the PPAs to count towards an RPS compliance obligation. Nor shall that finding absolve SCE of its obligation to enforce compliance with the PPAs.

17. The protests of Advice Letter (AL) 2339-E-C by the Division of Ratepayer Advocates (DRA) and the Western Power Trading Forum (WFTR) are accepted because the Commission concurs that the amended and restated BSE Contracts should be compared to comparable projects resulting from SCE's 2011 RPS Solicitation.

18. The protest of Advice Letter (AL) 2339-E-C by the National Resources Defense Council (NRDC), Defenders of Wildlife and The Sierra Club is accepted because the Commission concurs that environmental concerns exist that may increase the risk of permitting delays potentially resulting in project failure.

19. Protest letters from The Wilderness Society, the Center for Biological Diversity, and the Desert Protective Council will not be considered because they failed to serve their protest to the service list as required.

20. The comment letter submitted by the California Wind Energy Association (CalWEA) is not accepted because it is out of scope.

21. The response letter submitted by the United States Department of Defense (DOD) is accepted because the Commission views any potential conflict with military training operations as a potential siting risk that can potentially decrease the viability of the Siberia projects.

22. The Rio Mesa 1 and Rio Mesa 2 power purchase agreements should be rejected in their entirety.

23. The Siberia 1, Siberia 2 and Sonoran West power purchase agreements should be approved with modifications.

24. AL 2339-E, as amended by AL 2339-E-A, AL 2339-E-B, AL 2339-E-C and AL 2339-E-D are approved in part with modifications and not approved in part.

THEREFORE IT IS ORDERED THAT:

1. The power purchase agreements between Southern California Edison Company and Solar Partners XVI LLC and Solar Partners XVII LLC, as proposed in Advice Letter 2339-E, and amended by Advice Letters 2339-E-A, 2339-E-B, 2339-E-C and 2339-E-D, are not approved.
2. The power purchase agreements between Southern California Edison Company and Solar Partners XVIII LLC, Solar Partners XIX LLC, and Solar Partners XX LLC as proposed in Advice Letter 2339-E, and amended by Advice Letters 2339-E-A, 2339-E-B, 2339-E-C and 2339-E-D, are approved with modifications.
3. SCE must seek approval from the Commission to amend any BSE PPA through a Tier 2 Compliance filing if the point of interconnection changes. SCE must verify with an Independent Evaluator that the renewable premium for the PPA(s) is not negatively impacted due to a change in the point of interconnection. If the renewable premium is negatively impacted for the PPA(s), SCE must file a supplemental Tier 3 Advice Letter requesting approval of the amended and restated PPA(s).
4. SCE must file a Tier 2 Compliance filing within 10 days of Commission approval of the Siberia 1 and Siberia 2 and Sonoran West PPAs to amend the PPAs to include the required contract 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 September 13, 2012; the following Commissioners voting favorably thereon:

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PAUL CLANON
Executive Director

Confidential Appendix A

Price Reasonableness, Value, and Project Viability

[REDACTED]

Confidential Appendix B

Independent Evaluator Report

[REDACTED]