

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

ENERGY DIVISION

ID #9591  
RESOLUTION E-4341  
July 29, 2010

REDACTED

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

Resolution E-4341. Southern California Edison (SCE) requests approval of Amendments 3 and 4 to an existing renewable power purchase agreement (PPA) with Coso Clean Power, LLC.

PROPOSED OUTCOME: This Resolution approves, with modification, cost recovery for an amended long-term renewable energy PPA between SCE and Coso Clean Power, LLC.

ESTIMATED COST: Costs of the PPA are confidential at this time.

By Advice Letter 2449-E filed on March 17, 2010.

---

**SUMMARY**

**Southern California Edison's renewable energy PPA with Coso Clean Power LLC, as amended by Amendments 3 and 4, complies with the Renewables Portfolio Standard (RPS) procurement guidelines and is approved with modification.**

Southern California Edison (SCE) filed advice letter 2449-E requesting Commission review and approval of amendments to its previously approved PPA executed with Coso Clean Power, LLC (Coso). The original PPA resulted from SCE's 2005 RPS solicitation and was approved by the Commission on May 24, 2007 in Commission Decision (D.) 07-05-046.

The amendments were requested by Coso in order to restore the project to near its historic energy output level. The amended contract allows the contract capacity to increase from the current 204 MW to 287 MW and adjusts the energy

price for the net increased capacity. The energy price for the original 204 MW is unchanged. In addition, the amendments would increase the amount of the performance assurance for the Coso contract.

The Coso project is an existing 204 MW geothermal facility located on the China Lake Naval Weapons Center in Inyo County, California.

The following summarizes the amended agreement:

<b>Generating Facility</b>	<b>Technology Type</b>	<b>Term (Years)</b>	<b>Capacity (MW)</b>	<b>Energy (GWh)</b>	<b>Contract Delivery Start Date</b>	<b>Location</b>
Coso Clean Power LLC.	Geothermal	20 years	287 MW	2, 262	Jan 11, 2010	China Lake, Inyo County, Ca.

The amended Coso PPA would make available the additional contract capacity and associated energy in three increments with varying startup dates as noted in the table below:

<b>Projects</b>	<b>Roll-in Date</b>	<b>Current Contract Capacity</b>	<b>Amended Contract Capacity</b>	<b>Current Energy</b>	<b>Amended Energy</b>
Navy II	Jan. 11, 2010	68 MW	100 MW	536 GWh/year	788GWh/year
Navy I	Aug. 18, 2011	68 MW	100 MW	536GWh/year	788GWh/year
BLM	Mar. 12, 2019	68 MW	87 MW	536GWh/year	686GWh/year
<b>TOTAL</b>		<b>204 MW</b>	<b>287 MW</b>	<b>1,608GWh/year</b>	<b>2,263GWh/year</b>

The amended Coso PPA is priced at or below the applicable market price referent (MPR) for a 20-year contract and compares favorably to the contract prices from SCE's most recent RPS solicitation. Coso expects to implement

comprehensive modifications to its plant in order to restore and increase the output from its geothermal reservoirs to its initial levels. These modifications would increase the contract capacity by 83 MW. SCE asserts that these additional modifications would require an adjustment in energy price of the incremental energy associated with the 83 MW capacity. Deliveries from the amended Coso PPA are reasonably priced and fully recoverable in rates over the life of the contract, subject to Commission review of SCE's administration of the contract.

AL 2449-E is approved with modification.

### **NOTICE**

Notice of AL 2449-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**

#### **Overview of RPS Program**

The RPS Program administered by the Commission requires each utility to increase its total procurement of eligible renewable energy resources by at least one percent of retail sales per year so that twenty percent of the utility's retail sales are procured from eligible renewable energy resources no later than December 31, 2010.<sup>1</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>.

---

<sup>1</sup> See Public Utilities (Pub. Utils.) Code § 399.15(b)(1).

**SCE requests approval of Amendments 3 and 4 to its existing PPA with Coso**

SCE signed the original Coso PPA on November 15, 2006. The Commission approved the PPA in Decision (D.)07-05-046 without any modifications. The 20-year PPA for 204 MW of geothermal resources was negotiated by SCE through its 2005 RPS solicitation. The contract was subsequently modified by Amendments 1 and 2. SCE submitted Amendment 1 for CPUC approval in its 2008 Energy Resource Recovery Account (ERRA) reasonableness filing. SCE intends to submit Amendment 2 for CPUC approval in its 2010 ERRA reasonableness filing.<sup>2</sup> AL 2449-E requests CPUC approval of Amendments 3 and 4, which concern an amended contract price.

SCE states that Coso plans to make a number of capital improvements to its existing geothermal facilities that would increase the net generating capacity of the Coso project by an additional 83 MW. Amendment 3 increases the Coso contract capacity to 287 MW and modifies the energy price for the incremental 83 MW. Amendment 4 increases the contract's performance assurance amount and establishes an escrow account to hold any payments made under the contract until the Commission approves Amendment No.3.

SCE asserts that the amended Coso PPA is in compliance with Resolution E-4199, which states that if a developer requests an amendment that affects the price of an approved contract, the investor-owned utility (IOU) should re-evaluate the competitiveness of the amended contract as compared to the projects that the IOU is currently negotiating and to its most recent shortlist. The amended contract price should also be compared against the most recently approved MPRs.<sup>3</sup>

SCE states that the amended contract price is at or below the applicable 2008 MPR and compares favorably to the contract prices of its most recent (2009) RPS solicitation short-list of renewable resources.

---

<sup>2</sup> AL 2449-E at 3.

<sup>3</sup> In this case, the 2008 MPR was the most relevant benchmark as it was the most recently adopted MPR as of the execution date of the contract.

SCE requests that the Commission issue a resolution containing:

1. Approval of the amended Coso Contract in its entirety;
2. A finding that any electric energy sold or dedicated to SCE pursuant to the amended Coso Contract constitutes procurement by SCE from an eligible renewable energy resource (“ERR”) for the purpose of determining SCE’s compliance with any obligation that it may have to procure from ERRs pursuant to the RPS Legislation<sup>4</sup> or other applicable law concerning the procurement of electric energy from renewable energy resources;
3. A finding that all procurement under the amended Coso Contract counts, in full and without condition, toward any annual procurement target established by the RPS Legislation or the Commission that is applicable to SCE;
4. A finding that all procurement under the amended Coso Contract counts, in full and without condition, toward any incremental procurement target established by the RPS Legislation or the Commission that is applicable to SCE;
5. A finding that all procurement under the amended Coso Contract counts, in full and without condition, toward 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 amended Coso Contract and SCE’s entry into Amendment Nos 3 and 4, are reasonable and prudent for all purposes, including, but not limited to, recovery in rates of payments made pursuant to the amended Coso Contract, subject only to further review with respect to the reasonableness of SCE’s administration of the amended Coso Contract, and
7. Any other and further relief as the Commission finds just and reasonable.

---

<sup>4</sup> As defined by SCE, “RPS Legislation” refers to the State of California Renewable Portfolio Standard Program, as codified at California Public Utilities Code Section 399.11 et seq.”

## **Energy Division Review of the Proposed Agreement**

Energy Division evaluated the Agreement for the following criteria:

- Consistency with the resource needs identified in SCE's 2009 Procurement Plan
- Comparison to the results of SCE's 2009 solicitation
- Cost reasonableness
- Project viability
- Consistency with RPS standard terms and conditions (STC)
- Consistency with the Interim Emissions Performance Standard
- Procurement Review Group (PRG) participation

### **Consistency with the Resource Needs Identified in SCE's Plan**

The original Coso PPA was negotiated as part of SCE's 2005 solicitation and was deemed compliant with SCE's 2005 Procurement Plan (Plan) in D.07-05-046. However, because the contract is now being amended pursuant to bilateral negotiations to increase the project capacity and to change the price for the incremental capacity, the contract should be assessed relative to SCE's most recent resource needs and shortlist.

SCE's 2009 Plan states that SCE seeks to procure renewable resources to augment those under contract from prior solicitations and those executed pursuant to the 2006 and 2007 solicitations. Specifically, SCE intends to secure resources from its 2009 solicitation, as necessary, to ensure that it meets the 20% RPS goal as soon as possible, and with a reasonable margin of safety. SCE requested proposals based upon standard term lengths of 10, 15 or 20 years or a non-standard delivery term of no less than 1 month. SCE also requested proposals with a minimum capacity of 1.5 MW.

SCE indicated a preference for projects:

- With near-term deliveries
- Located in California or outside of California if the seller complies with all requirements pertaining to "Out-of-State Facilities" as set forth in the California Energy Commission (CEC) Guidebook for RPS eligibility

- That deliver their energy to SCE within the CAISO Control Area, but considered proposals for facilities interconnected to the Western Electricity Coordinating Council (WECC) transmission system for which SCE would take the risk of delivering the energy to California.

The Coso project is an in-state existing resource that fits SCE's identified renewable resource needs. The amended Coso contract will provide an additional 83 MW capacity which will contribute toward SCE's near-term and long-term energy needs. An incremental 32 MW commenced deliveries on January 11, 2010 and is currently contributing to SCE's energy needs. Another incremental 32 MW is scheduled to commence deliveries in August 2011, and the remaining incremental 19 MW is scheduled to commence deliveries in March 2019. Once all of 287 MW capacity goes online, the plant will contribute 2, 263 GWh of renewable energy each year toward SCE renewable energy portfolio.

The amended Coso PPA is consistent with the resource needs identified in SCE's 2009 Procurement Plan.

### **Comparison to the Results of SCE's 2009 Solicitation**

The Commission's Least Cost Best Fit (LCBF) decisions direct the utilities to use certain criteria in their bid ranking and provide guidance regarding the process by which the utility ranks bids in order to "shortlist" the bids eligible for contract negotiations.<sup>5</sup> The bid evaluation includes a quantitative and qualitative analysis. The quantitative analysis results in relative benefit-to-cost (B/C) ratios or the difference in \$/MWh between the Costs and Benefits (a renewable premium) for each bid, and the qualitative review assesses a project's technical viability, its overall viability and its developer experience.

Pursuant to Resolution E-4199, SCE conducted a quantitative and qualitative LCBF analysis of the amended Coso PPA. SCE's analysis indicates that the final LCBF results for the Coso projects are favorable compared to its 2009 RPS bids with respect to renewable premium, viability, and other factors. Confidential Appendix A of this resolution provides a more detailed comparison of the Coso projects to SCE's shortlisted bids.

---

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

The amended Coso PPA compares favorably to the results of SCE's 2009 solicitation.

### **Cost Reasonableness**

The total expected cost of the amended Coso PPA, as estimated by SCE, is reasonable based on its relation to bids received in response to SCE's 2009 solicitation. Confidential Appendix A to this resolution includes details about the contractual pricing terms and a detailed discussion comparing the cost between the original and amended Coso PPA.

Payments made by SCE under the amended Coso PPA are fully recoverable in rates over the life of the PPA, subject to Commission review of SCE's administration of the PPA.

### **Cost Containment**

Pursuant to Pub. Utils. Code 399.15(d), the Commission shall establish a cost limitation on each utility's above-MPR RPS procurement costs. The Commission adopted above-MPR funds (AMFs) for each utility in Resolution E-4199.

The amended levelized contract price, which includes the existing and incremental generation, as well as the individual price for the incremental generation, is equal to or below the applicable MPRs. Since contract price is below the MPR, no above-MPR funds (AMFs) are needed for this PPA.

### **Project Viability**

For SCE's 2009 RFP, SCE quantitatively evaluated and scored each bid's viability, based on a number of factors such as development issues, site control, technology maturity and seller experience.

The project viability is strong because the project has full site control, the facilities will use a commercialized technology, all permits have been obtained, and the existing facility has operated successfully for over 20 years. However, the proposed capacity increase does have some transmission risk. Under the amendment, the PPA capacity is being increased from 204 MW to 287 MW, and Coso currently holds transmission rights for only 242 MW. Coso is seeking approval for an additional 45 MW of transmission capacity. SCE states that no upgrades will be required in California or within the CAISO to access an

additional 45 MW of transmission capacity, and an operational study is being conducted for expedited interconnection.

The Coso facility is an existing facility that has previously provided renewable energy to SCE under Interim Standard Offer 4 Qualifying Facility (QF) contracts. These QF contracts were converted into the previously approved long-term PPA and since January 12, 2010 SCE has been receiving energy under this PPA. Caithness LLC, the parent company to Coso, is a successful independent power producer with a demonstrated history of reliable performance over many years. These factors support SCE's assertion that the project is viable.

SCE asserts that Coso's plan to add incremental capacity to the existing facility has high viability and that transmission upgrades will not be required to deliver the incremental power.

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

Decision 08-04-009 compiles the standard terms and conditions (STC) required in RPS contracts. That decision reflects that there are 4 non-modifiable STCs that every RPS contract must contain: STC 1 - CPUC Approval; STC 2 - RECs and Green Attributes; STC 6 - Eligibility; and STC 17 - Applicable Law. D.08-08-028 modified STC 2.

The Coso contract was originally filed by application, rather than advice letter, principally because it did not contain the non-modifiable STCs required for RPS contracts at that time. In D.07-05-046, the Commission approved the Coso contract without requiring that it conform to the non-modifiable STCs required at that time.

The original Coso PPA contains clauses that approximate STC 1 (see definition of "CPUC Approval" at Exhibit A, pp. 4-5), STC 6 (see Secs. 3.17 at p. 38 and 10.02(d) at p. 69), and STC 17 (see Sec. 10.07 at pp. 74-75). The original Coso PPA does not appear to address RECs or Green Attributes, as required by STC 2. However, "Green Attributes" is defined similar to STC 2 in Amendment 2 (see pp. 6-7), and the obligation for the seller to transfer Green Attributes to SCE is at PPA Sec. 3.01 at pp. 19-20, as amended by Amendment 2 at Para. 8, p. 5.

SCE asserts that neither Amendment 3 nor 4 changes these terms and conditions.

In order to bring the amended Coso contract into compliance with D.08-04-009, within 30 days from the effective date of this Resolution SCE shall file a Tier 1 advice letter compliance filing demonstrating that the Coso PPA includes all of the relevant non-modifiable standard terms and conditions.

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

California Pub. Utils. Code §§ 8340 and 8341 require that the Commission consider emissions costs 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 powerplant. The EPS applies to all energy contracts for baseload generation that are at least five years in duration.<sup>6</sup> Generating facilities using certain renewable resources are deemed compliant with the EPS,<sup>7</sup> although contracts with intermittent resources are subject to the limitation that total purchases under the contract do not exceed the expected output from the facility over the term of the contract.<sup>8</sup>

The amended Coso PPA is compliant with the EPS because geothermal electricity is one of the pre-approved renewable energy technologies listed in D.07-01-039.

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

SCE's PRG consists of representatives from: the Division of Ratepayer Advocates (DRA), The Utility Reform Network (TURN), California Utility Employees, the Union of Concerned Scientists, the Natural Resources Defense Council, and the Commission's Energy and Legal Divisions.

---

<sup>6</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>7</sup> D.07-01-039, Attachment 7, p. 4

<sup>8</sup> D.07-01-039, Attachment 7, p. 7

On November 16, 2009, SCE presented Amendment 3 to the Coso PPA to its Procurement Review Group (PRG).

Although Energy Division participates in the PRG, it reserved judgment on the contracts until the AL was filed. Energy Division reviewed the transaction independently of the PRG, and allowed for a full protest period before concluding its analysis.

Pursuant to D.02-08-071, SCE's Procurement Review Group (PRG) participated in the review of the PPA.

### **RPS ELIGIBILITY**

Pursuant to Pub. Utils. Code § 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 use commercially reasonable efforts to maintain eligibility should there be a change in law affecting eligibility.<sup>9</sup>

The Commission also 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>10</sup>

---

<sup>9</sup> See, e.g. D. 08-04-009 at Appendix A, STC 6, Eligibility.

<sup>10</sup> See, e.g. D. 08-04-009 at Appendix A, STC 1, CPUC Approval.

As stated above, the amended Coso PPA does not contain the non-modifiable STCs, including the "Eligibility" and "CPUC Approval" terms in Appendix A of D.08-04-009. However, the original PPA between Coso and SCE contains warranties from Coso comparable to those required under STC 6 and contains a modified version of the CPUC Approval term that requires the CPUC to find the aforementioned language.

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 administration of such contracts.

### **CONFIDENTIAL INFORMATION**

The Commission, in implementing Pub. Utils. Code § 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, such as 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.

## **COMMENTS ON THIS RESOLUTION**

Pub. Utils. 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 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 amended Coso power purchase agreement (PPA) is consistent with the resource needs identified in Southern California Edison's (SCE) 2009 Procurement Plan.
2. The amended Coso PPA compares favorably to the results of SCE's 2009 solicitation.
3. The total expected costs of the amended Coso PPA, as estimated by SCE, are reasonable based on their relation to bids received in response to SCE's 2009 solicitation.
4. Payments made by SCE under the amended Coso PPA are fully recoverable in rates over the life of the PPA, subject to Commission review of SCE's administration of the PPA.
5. SCE asserts that Coso's plan to add incremental capacity to the existing facility has high viability and that transmission upgrades will not be required to deliver the incremental power.
6. The Coso contract was originally filed by application, rather than advice letter, principally because it did not contain the non-modifiable standard terms and conditions (STCs) required for RPS contracts.
7. The amended Coso contract is not in compliance with D.08-04-009, which requires all RPS contracts to include four non-modifiable STCs.
8. Commission approval of the PPA should be conditioned upon SCE and Coso modifying the amended Coso PPA to include the non-modifiable STCs as compiled in D.08-04-009, and modified by D.08-08-028.

9. The amended Coso PPA is compliant with the Emissions Performance Standard because geothermal electricity is one of the pre-approved renewable energy technologies listed in D.07-01-039.
10. Pursuant to D.02-08-071, SCE's Procurement Review Group (PRG) participated in the review of the PPA.
11. Procurement pursuant to the PPA 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.03-06-071 and D.06-10-050, or other applicable law.
12. The immediately preceding finding shall not be read to allow generation from a non-RPS-eligible-renewable energy resource under this PPA to count towards an RPS compliance obligation. Nor shall that finding absolve SCE of its obligation to enforce compliance with this PPA.
13. 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.
14. AL 2449-E should be approved effective today.

**THEREFORE IT IS ORDERED THAT:**

1. Southern California Edison Company's Advice Letter 2449-E, requesting Commission review and approval of its Amendments 3 and 4 to its power purchase agreement with Coso Clean Power, LLC is approved conditioned upon SCE and Coso modifying the PPA to include the non-modifiable standard terms and conditions as compiled in D.08-04-009, and modified by D.08-08-028.
2. Within 30 days from the effective date of this Resolution SCE shall file a Tier 1 advice letter compliance filing demonstrating that the Coso Clean Power, LLC power purchase agreement adopted by this Resolution includes all of the relevant non-modifiable standard terms and conditions as compiled in D.08-04-009, and modified by D.08-08-028.
3. 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 July 29, 2010; the following Commissioners voting favorably thereon:

\_\_\_\_\_  
PAUL CLANON  
Executive Director

**Confidential Appendix A**  
Contract Cost Evaluation  
[REDACTED]