

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

I.D. # 12023

ENERGY DIVISION

**RESOLUTION E-4577
April 18, 2013**

REDACTED
R E S O L U T I O N

Resolution E-4577. Pacific Gas and Electric requests approval of a power purchase agreement with RE Kansas, LLC, which is a wholly-owned subsidiary of Recurrent Energy, LLC.

PROPOSED OUTCOME: This Resolution approves cost recovery for the power purchase agreement between Pacific Gas and Electric and RE Kansas, LLC.

SAFETY CONSIDERATIONS: The RE Kansas power purchase agreement is between PG&E and RE Kansas, LLC. The Commission's jurisdiction extends only over PG&E, not RE Kansas, LLC. Based on the information before us, this PPA does not appear to result in any adverse safety impacts on the facilities or operations of PG&E.

ESTIMATED COST: Actual costs are confidential at this time.

By Advice Letter 4111-E filed on September 12, 2012.

SUMMARY

Cost recovery for Pacific Gas and Electric's renewable energy power purchase agreement (PPA) with RE Kansas, LLC is approved with modifications.

Pacific Gas and Electric (PG&E) filed Advice Letter 4111-E on September 12, 2012, requesting California Public Utilities Commission (CPUC) approval of a power purchase agreement (PPA) with RE Kansas, LLC (RE Kansas), a wholly-owned subsidiary of Recurrent Energy, LLC (Recurrent). RE Kansas proposes to develop a 20 megawatt (MW) solar photovoltaic (PV) facility in Kings County, CA. Forecasted annual generation of 47 gigawatt hours (GWh) is contracted to be delivered over a 20-year term beginning on January 1, 2018.

This resolution approves cost recovery for the PPA between PG&E and RE Kansas, LLC with modifications. PG&E’s execution of the RE Kansas PPA is consistent with PG&E’s 2011 RPS Procurement Plan, which the Commission approved in Decision 11-04-030. Deliveries under the RE Kansas PPA are reasonably priced and fully recoverable in rates over the life of the PPA, subject to Commission review of PG&E’s administration of the PPA. In the event that the site substitution option for the RE Kansas PPA is exercised by the developer, PG&E must file a Tier 2 Advice Letter compliance filing with the Commission within 30 days.

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

Generating Facility	Type	Term Years	MW Capacity	Annual Deliveries	COD	Deliveries to PG&E begin:	Project Location
RE Kansas	Solar PV	20	20	47 GWh	Must be online by 1/1/2017	1/1/2018	Kings County, 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).¹ The RPS program is codified in Public Utilities Code Sections 399.11-399.31.² 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, 2020.³

Additional background information about the Commission’s RPS Program, including links to relevant laws and Commission decisions, is available at

¹ 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).

² All further references to sections refer to Public Utilities Code unless otherwise specified.

³ Decision (D.)11-12-020 established a methodology to calculate procurement requirement quantities for the three different compliance periods set forth in Section 399.15 (2011-2013, 2014-2016, and 2017-2020).

<http://www.cpuc.ca.gov/PUC/energy/Renewables/overview.htm> and
<http://www.cpuc.ca.gov/PUC/energy/Renewables/decisions.htm>.

NOTICE

Notice of Advice Letter 4111-E was made by publication in the Commission's Daily Calendar. PG&E states that a copy of the Advice Letter was mailed and distributed in accordance with Section 3.14 of General Order 96-B.

PROTESTS

PG&E's Advice Letter 4111-E was not protested.

DISCUSSION

Pacific Gas and Electric (PG&E) requests Commission approval of a renewable energy power purchase agreement (PPA) between PG&E and RE Kansas, LLC.

In July 2012, PG&E selected the most competitive shortlisted offers from its 2011 Renewables Portfolio Standards (RPS) bid solicitation for execution, including the RE Kansas PPA (Power Purchase Agreement). On August 13, 2012, PG&E and RE Kansas, LLC executed the RE Kansas PPA. PG&E filed Advice Letter (AL) 4111-E on September 12, 2012 seeking Commission approval of the PPA.

RE Kansas, LLC is a wholly-owned subsidiary of Recurrent Energy, LLC, a solar project developer. The 20 megawatt (MW) RE Kansas facility is proposed to deliver an estimated annual generation of 47 gigawatt hours (GWh) per year over a term of 20 years.

PG&E requests that the Commission issue a resolution that:

1. Approves the PPA in its entirety, including payments to be made by PG&E pursuant to the PPA, subject to the Commission's review of PG&E's administration of the PPA.
2. Finds that any procurement pursuant to the PPA is procurement from eligible renewable energy resources for purposes of determining PG&E's compliance with any obligation that it may have to procure eligible renewable energy resources pursuant to the California RPS (Public Utilities Code Section 399.11 et seq.), D. 11-12-020 and D. 11-12-052, or other applicable law.

3. Finds that all procurement and administrative costs, as provided by Public Utilities Code section 399.13(g), associated with the PPA shall be recovered in rates.
4. Adopts the following finding of fact and conclusion of law in support of CPUC approval:
 - a. The PPA is consistent with PG&E's 2011 RPS procurement plan.
 - b. The terms of the PPA, including the price of delivered energy, is reasonable.
5. Adopts the following finding of fact and conclusion of law in support of cost recovery for the PPA:
 - a. The utility's costs under the PPA shall be recovered through PG&E's Energy Resource Recovery Account.
 - b. Any stranded cost that may arise from the PPA is subject to the provisions of D.04-12-048 that authorize recovery of stranded renewables procurement costs over the life of the contract. The implementation of the D. 04-12-048 stranded cost recovery mechanism is addressed in D.08-09-012.
6. Adopts the following findings with respect to resource compliance with the Emissions Performance Standard adopted in R.06-04-009:
 - a. The PPA is not a form of covered procurement subject to the Emissions Performance Standard, because the generating facility has an expected capacity factor of less than 60 percent and, therefore, is not baseload generation under paragraph 1(a)(ii) and 3(2)(a) of the adopted Interim EPS Rules.
7. Adopts a finding of fact and conclusion of law that deliveries from the PPA shall be categorized as procurement under the portfolio category specified in Section 399.16(b)(1)(A), subject to the Commission's after-the-fact verification that all applicable criteria have been met.

Energy Division Evaluated the PPA on these Grounds:

- Consistency with PG&E's 2011 RPS Procurement Plan
- Consistency with Least-Cost Best-Fit Requirements

- RPS Portfolio Need
- Price Reasonableness and Value
- Independent Evaluator (IE) Report
- Consistency with RPS Standard Terms and Conditions
- Procurement Review Group Participation
- Contribution to Minimum Long Term Contracting Requirement
- Compliance with the Interim Greenhouse Gas Emissions Performance Standard

Consistency with PG&E'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.⁴ The Commission must then accept or reject proposed PPAs based on their consistency with the utility's approved Plan. The RE Kansas PPA was shortlisted and later executed as a result of PG&E's 2011 RPS Solicitation, which was approved in PG&E's 2011 RPS Plan. Therefore, the RE Kansas PPA is being evaluated for its consistency with PG&E's 2011 RPS Plan. PG&E's stated preferences in its 2011 RPS Plan include: 1) projects that allow it to address its long-term 33% RPS mandate under the third compliance period (CP3) from 2017-2020, and 2) projects with high viability.

The GCOD of the RE Kansas facility is January 1, 2018, which is during the third compliance period when PG&E has a stated need for RPS-eligible generation.

PG&E scored the RE Kansas PPA as highly viable using the project viability calculator because the project has achieved important project development milestones. See Confidential Appendix A for more details on the RE Kansas PPA's viability.

The RE Kansas PPA is consistent with PG&E's 2011 RPS Procurement Plan approved by D.11-04-030.

Consistency with PG&E's Least-Cost Best-Fit (LCBF) Requirements

The basic components of PG&E's LCBF evaluation and selection criteria and process for RPS PPAs were established in the Commission's LCBF Decisions D.03-06-071 and D.04-07-029. Consistent with these decisions, the five main

⁴ § 399.13.

LCBF evaluation steps undertaken by PG&E are: (1) determination of market value of bid; (2) evaluation of portfolio fit; (3) evaluation of project viability; (4) consistency with RPS goals and; (5) calculation of transmission adders. The LCBF decision directs the utilities to use certain criteria in their bid ranking.⁵ 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. PG&E’s bid evaluation includes a quantitative and qualitative analysis, and also analyzes each proposal’s absolute value to PG&E’s customers and relative value in comparison to other proposals.

In AL 4111-E, PG&E evaluated the reasonableness of the finalized RE Kansas PPA against proposals that PG&E received in its 2011 RPS Solicitation and RPS contracts executed by PG&E in 12 months prior to the execution of the RE Kansas PPA. When compared against these cohorts, the RE Kansas PPA compares favorably on price, value, and need. See Confidential Appendix A for more details.

PG&E adequately examined the reasonableness of the RE Kansas PPA utilizing its LCBF methodology that was in place during the time the PPA was being negotiated and executed.

RPS Portfolio Need

The California RPS Program was established by Senate Bill (SB) 1078 and has been recently modified by SB 2 (1X), which became effective on December 10, 2011. SB 2 (1X) made significant changes to the RPS Program.⁶ SB2 (1X) established new RPS procurement targets such that retail sellers must procure “...from January 1, 2011 to December 31, 2013...an average of 20 percent of retail sales...25 percent of retail sales by December 31, 2016, and 33 percent of retail sales by December 31, 2020.”⁷

PG&E’s RPS portfolio need falls within Compliance Period 3 (2017-2020). Deliveries from RE Kansas to PG&E will begin on January 1, 2018, which directly aligns with PG&E’s stated need for RPS generation in the third compliance period.

The Commission finds that generation from the RE Kansas PPA fits the portfolio need requirements of PG&E’s RPS portfolio.

⁵ See D.04-07-029.

⁶ The Commission opened Rulemaking (R.) 11-05-005 (May 5, 2011) to implement the new RPS law.

⁷ See § 399.15(b)(2)(B), SB 2 (1X).

Price Reasonableness and Value

The most recent cohorts to compare the RE Kansas PPA's price and value against are shortlisted bids from PG&E's 2011 RPS solicitation and RPS contracts executed by PG&E in the 12 months prior to the execution of the RE Kansas PPA. The PPA was executed on August 13, 2012 and submitted to the Commission for approval on September 5, 2012.

PG&E evaluated the attributes of each PPA bid both quantitatively and qualitatively in order to rank them for their shortlist first based on NMV, and then applied a secondary ranking using portfolio adjusted value (PAV)⁸. The RE Kansas PPA compared favorably against other offers based on price, non-price factors and portfolio fit using the NMV methodology. See Confidential Appendix A for a price and value comparison.

The price and net market value of the PPA are reasonable compared to shortlisted projects resulting from PG&E's 2011 RPS Solicitation and contracts recently executed by PG&E.

The RE Kansas PPA allows for the developer option to substitute the proposed site for the RE Kansas facility to another preapproved site. If Recurrent exercises this site substitution option in the PPA, then PG&E must file a Tier 2 Advice Letter Compliance Filing notifying the Commission of the site change for the RE Kansas facility. PG&E must confirm with an Independent Evaluator that the net market value of the RE Kansas PPA at the new site does not decrease to the point where it is no longer competitive relative to competing offers from PG&E's 2011 shortlist. If the net market value is found to be no longer competitive relative to PG&E's 2011 RPS shortlist, PG&E must file a supplemental Tier 3 Advice Letter requesting approval of an amended and restated RE Kansas PPA.

In the event that the developer exercises the site substitution option for the RE Kansas facility, the RE Kansas PPA at the new site must remain competitive for price and net market value when compared to competing bids from PG&E's 2011 shortlist.

The CPUC approves cost recovery for the RE Kansas PPA between PG&E and RE Kansas, LLC.

Independent Evaluator (IE) Report

⁸ The Portfolio Adjusted Value methodology uses the Net Market Value results as an initial valuation and then makes additional adjustments that take into account the impact a transaction will have on PG&E's portfolio, many of which are elements of portfolio fit.

PG&E used Arroyo Seco Consulting (Arroyo) as the Independent Evaluator for the PPA. Arroyo compared the NMV of the RE Kansas PPA to peer groups of previously and currently offered competing sources of RPS-eligible energy, using both PG&E's and Arroyo's independent analysis. Based on those comparisons, Arroyo opines that the NMV of the contract ranks as moderate to high and the contract price ranks as low when compared to relevant peer groups of competing proposals. See Confidential Appendix B for a detailed explanation of the IE's findings.

Consistent with D.06-05-039, an independent evaluator oversaw PG&E's RPS procurement process. Additionally, an independent evaluator oversaw PG&E's negotiations with Recurrent Energy, LLC and compared the costs, value and viability of the RE Kansas PPA to peer groups consisting of alternative competing proposals currently or recently available to PG&E.

The independent evaluator recommends that the Commission approve the RE Kansas PPA.

Consistency with RPS Standard Terms and Conditions

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

The RE Kansas PPA includes 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.

Procurement Review Group Participation

The Procurement Review Group (PRG) process was initially established in D.02-08-071 as an advisory group of non-market participants to review and assess the details of the investor-owned utilities' 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.

According to PG&E, participants in its PRG included representatives from the Commission's Energy Division and the Division of Ratepayer Advocates, the Department of Water Resources, the Union of Concerned Scientists, the Utility Reform Network, the California Utility Employees, and Jan Reid, as a PG&E

ratepayer. The RE Kansas PPA was presented to the PRG as a potential contract for execution on June 19, 2012.

Pursuant to D.02-08-071, PG&E complied with the Commission's rules for involving the Procurement Review Group.

Contribution to Minimum Quantity Requirement for Long-Term PPAs

Section 399.13(b) requires that the commission establish "minimum quantities of eligible renewable energy resources to be procured through contracts of at least 10 years' duration." The Commission established the minimum quantity requirements in D.12-06-038.

Because the term of the RE Kansas PPA is greater than 10 years in length, the PPA may be construed as counting toward the minimum quantity requirements that the Commission established in D.12-06-038.

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) PPAs 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 PPAs for baseload generation that are at least five years in duration.⁹ Generating facilities using certain renewable resources, including geothermal energy, are deemed compliant with the EPS.¹⁰

The RE Kansas facility is not baseload generation and therefore the EPS does not apply to this PPA.

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 PPA, the

⁹ "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. Util. Code § 8340 (a).

¹⁰ D.07-01-039, Attachment 7, p. 4

Commission has required standard and non-modifiable “eligibility” language in all RPS PPAs. 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.¹¹

The Commission requires a standard and non-modifiable clause in all RPS PPAs 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.”¹²

Notwithstanding this language, the Commission has no jurisdiction to determine whether a project is not 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.

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 PPAs. 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.

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

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

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

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 RE Kansas PPA is consistent with PG&E's 2011 RPS Procurement Plan approved by D.11-04-030.
2. PG&E adequately examined the reasonableness of the RE Kansas PPA utilizing its LCBF methodology during the time the PPA was being negotiated and executed.
3. Generation from the RE Kansas PPA fits the portfolio need requirements of PG&E's RPS portfolio.
4. The price and net market value of the RE Kansas PPA are reasonable compared to shortlisted projects resulting from PG&E's 2011 RPS Solicitation and contracts recently executed by PG&E.
5. The RE Kansas PPA allows for the developer option to substitute the proposed site for the RE Kansas facility to another preapproved site.
6. In the event that the developer exercises the site substitution option for the RE Kansas facility, the RE Kansas PPA at the new site must remain competitive for price and net market value when compared to competing bids from PG&E's 2011 shortlist.
7. The RE Kansas PPA includes 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.

8. Pursuant to D.02-08-071, PG&E complied with the Commission's rules for involving the Procurement Review Group.
9. Because the term of the RE Kansas PPA is greater than 10 years in length, the PPA may be construed as counting toward the minimum quantity requirements that the Commission established in D.12-06-038.
10. The RE Kansas facility is not baseload generation and therefore the Emissions Performance Standard does not apply to this PPA.
11. Procurement pursuant to the RE Kansas PPA is procurement from an eligible renewable energy resource for purposes of determining PG&E'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.
12. The immediately preceding finding shall not be read to allow generation from a non-RPS eligible renewable energy resource under the PPA to count towards an RPS compliance obligation. Nor shall that finding absolve PG&E of its obligation to enforce compliance with the RE Kansas 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. The RE Kansas PPA should be approved in its entirety.
15. Advice Letter 4111-E should be approved effective today with modifications.
16. Payments made by PG&E under the RE Kansas PPA are fully recoverable in rates over the life of the PPA, subject to Commission review of PG&E's administration of the PPA.

THEREFORE IT IS ORDERED THAT:

1. The power purchase agreement between Pacific Gas and Electric Company and RE Kansas, LLC as proposed in Advice Letter 4111-E is approved with modifications.
2. PG&E must file a Tier 2 Advice Letter Compliance filing with the Commission within 30 days in the event that the site location is changed for the RE Kansas facility. The Tier 2 compliance filing must show that the price and value of the RE Kansas power purchase agreement at the substitute site remains competitive when compared to PG&E's 2011 shortlist. This finding must be

verified by an Independent Evaluator. If the RE Kansas power purchase agreement at the substitute site is found to be no longer competitive relative to PG&E's 2011 RPS shortlist, then PG&E must file a supplemental Tier 3 Advice Letter requesting approval of an amended and restated RE Kansas power purchase agreement.

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 April 18, 2013; the following Commissioners voting favorably thereon:

Paul Clanon
Executive Director

Confidential Appendix A

[REDACTED]

Confidential Appendix B

[REDACTED]

Confidential Appendix C

[REDACTED]