PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Item #20
ID #9690

ENERGY DIVISION **RESOLUTION E-4356**
September 2, 2010

REDACTED

R E S O L U T I O N

Resolution E-4356. Pacific Gas and Electric Company requests approval of a renewable energy power purchase agreements with Alpine Suntower, LLC, a wholly owned subsidiary of NRG Energy.

PROPOSED OUTCOME: This Resolution approves Pacific Gas and Electric Company's request for approval of cost recovery for a power purchase agreement between Pacific Gas and Electric Company and Alpine Suntower, LLC, pursuant to California's RPS program. The power purchase agreement is approved.

ESTIMATED COST: Actual costs are confidential at this time.

By Advice Letter 3671-E filed on May 11, 2010.

SUMMARY

Pacific Gas and Electric Company's renewable power purchase agreement complies with the Renewables Portfolio Standard procurement guidelines and is approved

Pacific Gas and Electric Company (PG&E) filed Advice Letter (AL) 3671-E on May 11, 2010, requesting California Public Utilities Commission (Commission) approval of a renewable power purchase agreement (PPA) with Alpine Suntower, LLC, an affiliate of NRG Energy.

Under the proposed 20-year PPA, PG&E would procure renewable energy from the planned 66 megawatt Alpine Suntower solar photovoltaic facility to be located in Los Angeles County, California. The Alpine Suntower PPA resulted from PG&E's 2007 Renewables Portfolio Standard (RPS) solicitation.

This resolution approves the PPA between PG&E and Alpine Suntower, LLC because the PPA is consistent with PG&E's 2007 RPS Procurement Plan approved in Decision 07-02-011 and because the costs are reasonable. Deliveries under the PPA are fully recoverable in rates over the life of the contract, subject to Commission review of PG&E's administration of the PPA.

The following tables summarize the Project specific features of the agreement:

Generating Facility	Alpine Suntower
Technology	Solar Photovoltaic
Capacity	66 megawatts (MW)
Expected Deliveries	145 gigawatt-hours per year (GWh/yr)
Contract Term	20 years
Commercial Operation Date	March 31, 2012
Project Location	Los Angeles County, CA

BACKGROUND

Overview of RPS Program

The California RPS Program was established by Senate Bill (SB) 1078, and has been subsequently modified by SB 107 and SB 1036.[1] The RPS program is codified in Public Utilities Code Sections 399.11-399.20.[2] 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 20 percent of the utility's retail sales are procured from eligible renewable energy resources no later than December 31, 2010.[3]

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[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).

[2] All further references to sections refer to Public Utilities Code (Pub. Utils. Code) unless otherwise specified.

[3] *See* § 399.15(b)(1).

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 3671-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 IV of General Order 96-B.

PROTESTS

PG&E's AL 3671-E was not protested.

DISCUSSION

Pacific Gas and Electric Company requests commission approval of a new renewable energy contract

On May 11, 2010, Pacific Gas and Electric Company (PG&E) filed Advice Letter (AL) 3671-E requesting California Public Utilities Commission (Commission) review and approval of a renewable power purchase agreement (PPA) with Alpine Suntower, LLC, (Alpine Suntower or Project), a wholly owned subsidiary of NRG Energy. The Alpine Suntower PPA resulted from PG&E's 2007 Renewables Portfolio Standard (RPS) solicitation. PG&E had filed a PPA with Alpine Suntower in AL 3481-E, on June 25, 2009, when the project was to be developed by eSolar. Since that filing, NRG purchased the Alpine Suntower project and the original PPA was re-negotiated.[4]

Under the Alpine Suntower PPA submitted in AL 3671-E, PG&E would procure RPS-eligible generation from a new solar photovoltaic (PV) facility being developed in Los Angeles County, California, near the city of Lancaster.

[4] PG&E withdrew AL 3481-E concurrent with filing AL 3671-E. Energy Division had not issued a draft resolution in response to PG&E's AL 3481-E prior to PG&E's withdrawal of the advice letter.

Beginning in March 2012, generation from the 66 megawatt (MW) Alpine Suntower project is expected to contribute an average of 145 gigawatt-hours (GWh) annually towards PG&E's RPS requirement. PG&E explains that the generation procured under the Alpine Suntower PPA will contribute to PG&E's 2010 RPS obligation, under the flexible compliance rules, and higher RPS targets established under Governor Schwarzenegger's Executive Order S-21-09[5].

In its advice letter filing, PG&E asserted that the Alpine Suntower project was shortlisted among several projects through its 2007 RPS solicitation in accordance with PG&E's least-cost, best-fit bid evaluation protocols. PG&E states that while the price for generation from Alpine Suntower exceeds the applicable 2009 market price referent (MPR), the costs are reasonable.

PG&E requests that the Commission issue a resolution containing the following findings:

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 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.) ("RPS"), Decision ("D.") 03-06-071 and D.06-10-050, or other applicable law.
3. Finds that all procurement and administrative costs, as provided by Public Utilities Code section 399.14(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 2007 RPS procurement plan.

[5] Executive Order S-21-09 directs the California Air Resources Board to adopt regulations increasing California's RPS goal to 33% by 2020.

b. The terms of the PPA, including the price of delivered energy, are reasonable.

5. Adopts the following finding of fact and conclusion of law in support of cost recovery for the PPA:

   a. The utility's cost of procurement under the PPA shall be recovered through PG&E's Energy Resource Recovery Account.

   b. Any stranded costs that may arise from the PPA are 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 ("EPS") adopted in R.06-04-009:

   a. The PPA is not a covered procurement subject to the EPS because the generating facility has a forecast capacity factor of less than 60% and therefore is not baseload generation under paragraphs 1(a)(ii) and 3(2)(a) of the Adopted Interim EPS Rules.

Energy Division evaluated the proposed PPA on the following grounds:

- Consistency with PG&E's 2007 RPS Procurement Plan and current renewable resource need
- Consistency with least-cost, best-fit requirements and Independent Evaluator review
- Procurement Review Group participation
- Consistency with RPS standard terms and conditions
- Cost reasonableness
- Cost containment
- Project viability
- Compliance with the minimum quantity requirement for long-term/new facility contracts
- Compliance with the Interim Emissions Performance Standard

Consistency with PG&E's 2007 RPS Procurement Plan and current renewable resource need

California's RPS statute requires that the Commission review the results of a renewable energy resource solicitation submitted for approval by a utility.[6] PG&E's 2007 RPS procurement plan (Plan) was approved by D.07-02-011 on February 15, 2007. Pursuant to statute, PG&E's Plan included an assessment of supply and demand to determine the optimal mix of renewable generation resources, consideration of flexible compliance mechanisms established by the Commission, and a bid solicitation protocol setting forth the need for renewable generation of various operational characteristics.[7] The stated goal of PG&E's 2007 RPS Plan was to procure approximately 1-2 percent of PG&E's retail sales volume or between 750 and 1,500 GWh per year.

PG&E states that the Alpine Suntower PPA is consistent with its 2007 Plan because the PPA meets the criteria for renewables procurement and because it was solicited, negotiated and executed according to PG&E's solicitation protocols.

PG&E has not yet achieved the 20% RPS with delivered energy, and therefore PG&E may have deficits that it will need to meet with future deliveries, as permitted under the RPS flexible compliance rules.[8] Also, PG&E is required to maintain the 20% RPS requirement beyond 2010.

Given the expected commercial operation date of March 2012, the Alpine Suntower project may contribute to PG&E's 20% RPS target due under flexible compliance rules. The 20-year Alpine Suntower PPA is valuable for maintaining PG&E's RPS target in subsequent years, particularly given the projected increase in PG&E's load and expiration of shorter-term RPS contracts. Therefore, the Alpine Suntower project fits PG&E's identified renewable resource needs because it will contribute to maintaining PG&E's long-term RPS obligations.

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[6] Pub. Utils. Code, § 399.14

[7] Pub. Utils. Code, § 399.14(a)(3)

[8] RPS compliance rules are set forth in D.06-10-050, Attachment A, as modified by D.07-03-046 and D.09-11-014.

The Alpine Suntower PPA is consistent with PG&E's 2007 RPS Procurement Plan, approved by D.07-02-011, and PG&E's current resource needs.

Consistency with PG&E's least-cost, best-fit (LCBF) requirements and Independent Evaluator review

The Commission's least-cost, best-fit (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. PG&E's 2007 RPS solicitation protocol included an explanation of its LCBF methodology, which includes quantitative and qualitative analysis on four primary areas: 1) determination of a bid's market value; 2) calculation of transmission adders and integration costs; 3) evaluation of portfolio fit; and 4) consideration of non-price factors such as project viability.

PG&E employed an independent evaluator (IE) to oversee its 2007 RPS solicitation, as required by the Commission.[10] AL 3671-E included an IE report that concluded that PG&E followed its LCBF protocols and was fair and inclusive in developing its 2007 RPS shortlist. The IE also stated in its report that the Alpine Suntower project is reasonably priced and more likely viable now that it will employ commercial solar PV technology.

Consistent with D.06-05-039, an independent evaluator oversaw PG&E's 2007 RPS solicitation and subsequent negotiations with Alpine Suntower.

The IE verified that PG&E's decision to shortlist Alpine Suntower was consistent with PG&E's solicitation protocols, including its least-cost, best-fit methodology set forth in PG&E's 2007 RPS Plan.

Procurement Review Group participation

The Procurement Review Group (PRG) 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

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

[10] *See* D.06-05-039

other procurement processes prior to submitting filings to the Commission.[11] PG&E provided its PRG with updates on the Alpine Suntower negotiations on February 12, 2010.

Pursuant to D.02-08-071, PG&E's Procurement Review Group participated in the review of the Alpine Suntower PPA.

Consistency with RPS standard terms and conditions

The Alpine Suntower PPA is based on PG&E's RPS pro forma contract and complies with D.08-04-009, as modified by D.08-08-028. As a result, the PPA contains the required non-modifiable standard terms and conditions.

The Alpine Suntower PPA includes the Commission adopted RPS "non-modifiable" standard terms and conditions.

Cost Reasonableness

In AL 3671-E, PG&E determined that the costs of the Alpine Suntower PPA were reasonable compared to proposals received in response to PG&E's 2009 solicitation. PG&E filed work papers with AL 3671-E illustrating how the Alpine Suntower PPA compared to bids received in PG&E's 2009 RPS solicitation and PG&E's 2009 shortlist. The Commission's reasonableness review for RPS PPA costs also includes a comparison to recent Commission-approved projects.

Using this analysis, and the confidential work papers provided by PG&E in AL 3671-E, the Commission finds that the PPA price is reasonable. Confidential Appendix A includes a detailed discussion of the contractual pricing terms, including PG&E's estimates of the total contract costs.

The contract price and total expected costs of the Alpine Suntower PPA are reasonable compared to offers from PG&E's 2009 solicitation and other comparable PPAs.

[11] The PRG for PG&E includes representatives of the California Department of Water Resources, the Commission's Energy Division and Division of Ratepayer Advocates, Union of Concerned Scientists, The Utility Reform Network, the California Utility Employees, and Jan Reid, as a PG&E ratepayer.

Payments made by PG&E under the Alpine Suntower PPA are fully recoverable in rates over the life of the PPA, subject to Commission review of PG&E's administration of the PPA.

Cost Containment

Pursuant to statute, the Commission calculates a market price referent (MPR) to assess above-market costs of individual RPS contracts and the RPS program in general.[12] Contracts that meet certain criteria are eligible for above-MPR funds (AMF).[13] Based on a 2013 guaranteed commercial online date for the Alpine Suntower project, the 20-year PPA exceeds the 2009 MPR[14] and therefore requires above-MPR funds.[15]

The PPA meets the eligibility criteria for AMFs. However, PG&E has exhausted its AMFs provided by statute.[16] Therefore, PG&E will voluntarily incur the above-MPR costs of the PPA.

Because there are above-market costs associated with this contract, which is subject to the cost limitation of Pub. Utils. Code § 399.15(d), and PG&E has exhausted its above-MPR funds, PG&E is voluntarily entering into the Alpine Suntower PPA as permitted under the Pub. Utils. Code.

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[12] *See* § 399.15(c)

[13] SB 1036 codified in § 399.15(d)(2) the following criteria: the contract was selected through a competitive solicitation, the contract covers a duration of no less than 10 years, the contracted project is a new facility that will commence commercial operations after January 1, 2005, the contract is not for renewable energy credits, and the above-market costs of a contract do not include any indirect expenses including imbalance energy charges, sale of excess energy, decreased generation from existing resources, or transmission upgrades.

[14] *See* Resolution E-4298.

[15] The $/MWh portion of the contract price that exceeds the MPR, multiplied by the expected generation throughout the contract term, represents the total "above-MPR funds" (AMF) for a given PPA.

[16] On May 28, 2009, the Director of the Energy Division notified PG&E that it had exhausted its AMF account.

Project viability assessment and development status

PG&E's project viability assessment includes key criteria for renewable project development such as developer experience, commercialization of the technology, site control and permitting status and access to transmission. PG&E asserts that the Alpine Suntower project is viable and will be developed according to the terms and conditions in the PPA.

Developer experience and creditworthiness

The Alpine Suntower project is being developed by NRG Energy. In advice letter, PG&E explains that NRG Energy has a vast portfolio of energy generating facilities and approximately 550 MW under development.

Technology and quality of renewable resource

Alpine Suntower will employ commercially proven solar PV technology. PG&E asserts that Alpine Suntower is being sited in a well-known and highly predictable solar resource area, which has been verified by an independent third party.

Site control and permitting status

Alpine Suntower has site control. Permitting for the Project is underway and PG&E expects that it will obtain all necessary permits to achieve commercial operation in a timely matter.

Interconnection and transmission

Pursuant to the PPA, Alpine Suntower will deliver its generation to the Neenach Substation in Southern California Edison Company's service territory. Alpine Suntower filed its interconnection request with the California Independent System Operator in January 2008 and has been assigned to the Transition Study Cluster with Phase I results completed in July 2009 and Phase II results are expected by September 2010.

Contribution to minimum quantity requirement for long-term/new facility contracts

D.07-05-028 established a "minimum quantity" condition on the ability of utilities to count an eligible contract of less than 10 years duration for compliance with the RPS program.[17] In the calendar year that a short-term contract with an existing facility is executed, the utility must also enter into long-term contracts or contracts with new facilities equivalent to at least 0.25% of the utility's previous year's retail sales.

As a new facility, delivering pursuant to a long-term contract, the Alpine Suntower PPA will contribute to PG&E's minimum quantity requirement established in D.07-05-028.

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

California Pub. Util. Code § 8340 and 8341 require that the Commission 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 quota for obligated facilities to 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.[18]

The Alpine Suntower PPA complies with the EPS established in D.07-01-039 because it concerns one of the pre-approved renewable energy technologies listed in D.07-01-039.

RPS Eligibility and CPUC Approval

Pursuant to Pub. Util. Code § 399.13, the CEC certifies eligible renewable energy resources. Generation from a resource that is not CEC-certified cannot be used to

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[17] For purposes of D.07-05-028, contracts of less than 10 years duration are considered "short-term" contracts and facilities that commenced commercial operations prior to January 1, 2005 are considered "existing".

[18] "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).

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.[19]

The Commission requires a standard and non-modifiable clause in all RPS contracts that requires "CPUC Approval" of a PPA to include an explicit finding that "any procurement pursuant to this Agreement is procurement from an eligible renewable energy resource for purposes of determining Buyer's compliance with any obligation that it may have to procure eligible renewable energy resources pursuant to the California Renewables Portfolio Standard (*Public Utilities Code Section 399.11 et seq.*), Decision 03-06-071, or other applicable law."[20]

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, <u>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.</u> Such contract enforcement activities shall be reviewed pursuant to the Commission's authority to review the utilities' administration of contracts.

Confidential information

The Commission, in implementing Pub. Util. Code § 454.5(g), has determined in D.06-06-066, as modified by D.07-05-032, that certain material submitted to the

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

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

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

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 on August 3, 2010.

No comments were submitted.

FINDINGS AND CONCLUSIONS

1. The Alpine Suntower, LLC power purchase agreement is consistent with Pacific Gas and Electric Company's 2007 Renewables Portfolio Standard Procurement Plan and resource needs, approved by Decision 07-02-011.
2. The selection of the Alpine Suntower, LLC power purchase agreement is consistent with Pacific Gas and Electric Company's 2007 Renewables Portfolio Standard Procurement solicitation least-cost, best-fit protocols and renewable resource needs, approved by Decision 07-02-011.
3. Consistent with Decision 06-05-039, an independent evaluator oversaw Pacific Gas and Electric Company's negotiations with Alpine Suntower, LLC and concurs with Pacific Gas and Electric Company's decision to execute the agreement.

4. Pursuant to Decision 02-08-071, Pacific Gas and Electric Company's Procurement Review Group participated in the review of the Alpine Suntower, LLC power purchase agreement.
5. The total all-in costs of the Alpine Suntower, LLC power purchase agreement, are reasonable based on their relation to contract price and viability of bids received in response to Pacific Gas and Electric Company's 2009 solicitation for renewable resources.
6. The contract price in the Alpine Suntower, LLC power purchase agreement exceeds the applicable 2009 market price referent.
7. Pursuant to Public Utilities Code § 399.15(d), PG&E will voluntarily procure energy under the Alpine Suntower, LLC power purchase agreement at a price that exceeds the applicable market price referent.
8. Payments made by Pacific Gas and Electric Company under the Alpine Suntower, LLC power purchase agreement are fully recoverable in rates over the life of the agreement, subject to Commission review of Pacific Gas and Electric Company's administration of the agreement.
9. Pacific Gas and Electric Company asserts that the Alpine Suntower project is viable and will be developed according to the terms and conditions in the agreement.
10. The Alpine Suntower, LLC power purchase agreement will contribute to Pacific Gas and Electric Company's minimum quantity requirement established in Decision 07-05-028.
11. The Alpine Suntower, LLC power purchase agreement complies with the Emissions Performance Standard because it meets the conditions established in Decision 07-01-039.
12. Procurement pursuant to the Alpine Suntower, LLC power purchase agreement is procurement from eligible renewable energy resources for purposes of determining Pacific Gas and Electric Company'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 and Decision 06-10-050, or other applicable law.
13. The immediately preceding finding shall not be read to allow generation from a non-RPS eligible renewable energy resource under the power purchase agreement to count towards an RPS compliance obligation. Nor shall that

finding absolve Pacific Gas and Electric Company of its obligation to enforce compliance with this agreement.

14. 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.

15. Advice Letter 3671-E should be approved effective today.

THEREFORE IT IS ORDERED THAT:

1. Pacific Gas and Electric Company's Advice Letter 3671-E requesting Commission approval of a power purchase agreement with Alpine Suntower, LLC is approved.
2. 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 2, 2010; the following Commissioners voting favorably thereon:

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PAUL CLANON
Executive Director

Confidential Appendix A

Summary of PPA terms and conditions

[REDACTED]