PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION **RESOLUTION E-4302**
December 17, 2009

REDACTED

R E S O L U T I O N

Resolution E-4302. Pacific Gas and Electric Company (PG&E)

PROPOSED OUTCOME: This Resolution approves cost recovery for a power purchase agreement (PPA) resulting from PG&E's 2008 Renewables Portfolio Standard (RPS) solicitation between PG&E and El Dorado Energy, LLC., pursuant to California's RPS program.

ESTIMATED COST: Actual costs are confidential at this time.

By Advice Letter 3500-E filed on July 27, 2009.

SUMMARY

PG&E's renewable contract complies with the Renewables Portfolio Standard (RPS) procurement guidelines and is approved.

PG&E filed Advice Letter (AL) 3500-E on July 27, 2009, requesting California Public Utilities Commission (Commission) review and approval of a renewable PPA with a new solar photovoltaic (PV) facility, El Dorado Energy, LLC (Copper Mountain or Project).

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

Generating Facility	Resource Type	Contract Term (Years)	Capacity (MW)	Expected Deliveries (GWh/yr)	Commercial Operation Date	Project Location
Copper Mountain	Solar PV	20	48	100	June 1, 2011	Boulder City, Nevada

The proposed PPA is consistent with PG&E's 2008 RPS Procurement Plan. RPS-eligible deliveries from the PPA are reasonably priced and fully recoverable in rates over the life of the contract, subject to Commission review of PG&E's administration of the contract.

NOTICE

Notice of AL 3500-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

On August 17, 2009, DRA filed a timely protest with the Commission. DRA's protest was submitted as confidential and was fully redacted. PG&E filed a timely confidential response with the Commission on August 24, 2009.

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]

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)

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

[3] *See* § 399.15(b)(1).

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

DISCUSSION

PG&E requests Commission approval of a new renewable energy contract

On July 27, 2009, PG&E filed AL 3500-E requesting Commission approval of a renewable procurement contract with El Dorado Energy, LLC for generation from its proposed Copper Mountain solar PV facility.[4] Generation from the 48 MW Copper Mountain is expected to contribute an average of 100 gigawatt-hours (GWh) annually towards PG&E's Annual Procurement Target (APT) beginning in June, 2011.

The Project was bid into PG&E's 2008 RPS solicitation, PG&E shortlisted the Project and the parties subsequently negotiated the 20-year PPA that is considered herein. While the Project will be located within Boulder City, Nevada's designated Solar Energy Zone, generation from the Project will be delivered into CAISO's service territory.

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.

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[4] On August 5, 2009, PG&E filed a substitute sheet for AL 3500-E to correct a minor error. Specifically, the subsititute sheet changes the language on page 9, wherein, "The 379 acre Project site is owned by the developer" is revised to read, "The 379 acre Project site is owned by the City of Boulder City and leased to the developer under a long-term agreement."

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 approved 2008 RPS procurement plan.
    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 annualized 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 examined the proposed PPA on multiple grounds:

- Consistency with PG&E's 2008 RPS Procurement Plan
- Consistency with least-cost best-fit methodology identified in PG&E's Plan
- Consistency with RPS standard terms and conditions
- Project viability
- Compliance with the minimum quantity condition
- Consistency with the Interim Emissions Performance Standard

- Procurement Review Group concerns
- Comparison to the results of PG&E's 2008 solicitation
- Cost reasonableness

Consistency with PG&E's 2008 RPS Procurement Plan

California's RPS statute requires that the Commission review the results of a renewable energy resource solicitation submitted for approval by a utility.[5] PG&E's 2008 RPS procurement plan (Plan) was approved by D.08-02-008 on February 14, 2008. Pursuant to statute, PG&E's Plan includes 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.[6]

PG&E states that the generation from the PPAs will meet the resource needs identified in its Plan. In its Plan, PG&E's goal was to procure approximately 800 to 1,600 GWh per year. PG&E's Plan also noted that near-term deliveries were more valuable to PG&E. Beginning in 2011, the facility will annually deliver approximately 100 GWhs to PG&E. These deliveries from the facilities will contribute to PG&E's 20 percent goal under the current flexible compliance rules.

<u>The PPA is consistent with PG&E's 2008 RPS Procurement Plan, including PG&E's RPS resource needs, approved by D.08-02-008.</u>

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

The LCBF decision directs the utilities to use certain criteria in their bid ranking.[7] 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, which focuses 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. The LCBF evaluation is

[5] Pub. Util. Code, § 399.14

[6] Pub. Util. Code, §399.14(a)(3)

[7] D.04-07-029

generally used to establish a shortlist of proposals from PG&E's solicitation with whom PG&E will engage in contract negotiations. PG&E's 2008 RPS solicitation protocol included an explanation of its LCBF methodology. The IE oversaw the bid evaluation process and concluded in its report that the LCBF evaluation methodology was generally employed consistently and the process was conducted fairly. Copper Mountain's high project viability elevated its LCBF ranking.

The independent evaluator[8] (IE) has verified that the PPA is consistent with PG&E's objectives set forth in its 2008 RPS Plan. The IE's project specific report included a discussion of how PG&E added Copper Mountain to its 2008 RPS shortlist after the final shortlist had been submitted to the Commission. The IE appropriately highlights this event because it has an appearance that one project was treated differently than other bidders. In fact, El Dorado Energy, LLC clarified the details of its proposed project, which resulted in a decision by PG&E to add Copper Mountain to its shortlist.[9] The IE concludes that no other individual bid, solicitation participant, or project appears to have been disadvantaged by PG&E's actions. Finally, the IE supports PG&E's decision to execute the agreement discussed herein and concurs with PG&E that the PPA merits CPUC Approval.[10]

We agree with PG&E's IE. Rather than add Copper Mountain to its shortlist late in the solicitation schedule, PG&E instead could have pursued the Project as a bilateral. Doing so, would have been consistent with PG&E's solicitation protocol, but would not necessarily have been in the best interest of ratepayers. The benefits of having Copper Mountain added to PG&E's shortlist are that the IE then participates in the evaluation and negotiations with the counterparties. The Commission requires the use of an IE, in part, because of the benefits third party oversight provides to the procurement process. We believe that adhering

[8] PG&E employed Arroyo Seco Consulting as independent evaluator for its 2008 RPS Solicitation.

[9] El Dorado Energy, LLC clarified that its initial bid for a 50 MW project could be separated into two projects. The first project, El Dorado Solar, was approved by Resolution E-4240 on May 21, 2009, and is operational. Copper Mountain is the second project.

[10] Third Advice Letter Report of the Independent Evaluator on the Bid Evaluation and Selection Process. (AL 3500-E, Appendix I, page 53.)

to the solicitation protocol is singularly important so that one bidder is not advantaged over another. However, on balance, we accept PG&E's departure in this instance because the IE determined that no other bidder was disadvantaged and because shortlisting the Project enabled the IE to continue its oversight of the parties' negotiations.

PPA selection is consistent with 2008 RPS solicitation protocol objectives

Consistency with RPS standard terms and conditions

The proposed PPA is based on PG&E's 2008 RPS pro forma which complies with D.08-04-009, as modified by D.08-08-028. As a result, the PPA contains the required non-modifiable STCs.

The PPA includes the Commission adopted RPS standard terms and conditions, including those deemed "non modifiable".

Project viability assessment and development status

PG&E believes the Project is viable and will be developed according to the terms and conditions in the PPA. PG&E's project viability assessment included key criteria for renewable project development.

Project milestones

The PPA identifies agreed upon project milestones, including the construction start date and commercial operation date. The seller's obligations to meet these milestones are supported by performance assurance securities. PG&E believes that the Copper Mountain project development plan allows for all milestones to be achieved.

Developer experience and creditworthiness

Copper Mountain's developer, El Dorado Energy, LLC, is a subsidiary of Sempra Generation. El Dorado Energy, LLC developed the 10 MW El Dorado Solar project, which began commercial operation in 2008.[11]

Technology

The Project will use commercially proven fixed-tilt thin-film PV panels manufactured by First Solar.

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[11] *See* Resolution E-4240.

Site control and permitting status

Copper Mountain has full site control. The proposed Project will be sited within Boulder City, Nevada's designated Solar Energy Zone. Permitting for the Project is underway and PG&E expects the process to be completed in a timely matter.

Interconnection and transmission

In AL 3500, PG&E explains that the California Independent System Operator (CAISO) is going to treat the Copper Mountain as a remote generating resource on a pilot basis. Under this scenario, referred to by the CAISO as a "dynamic transfer" or "pseudo-tie" agreement, Copper Mountain avoids having to schedule deliveries with Nevada Energy and/or the need to construct transmission to deliver energy into the CAISO control area.[12] On November 30, the CAISO filed with the Federal Energy Regulatory Commission a pseudo-tie agreement between the CAISO and El Dorado Energy.[13]

The PPA contains additional provisions in the event the CAISO does not treat the Project as a remote generating resource throughout the delivery term.

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.[14] 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.

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[12] The CAISO defines dynamic transfers as a service that transfers "…all, or a portion of, actual output of a specific generator to another Balancing Authority in real-time". The CAISO is considering tariff changes to formally accommodate dynamic transfers. http://www.caiso.com/245d/245dc98c26ed0.html

[13] http://www.caiso.com/2477/247779cb39d00.pdf

[14] 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".

As a new facility, delivering pursuant to a long-term contract, the 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. 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 quota for obligated facilities to 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.[15] Renewable energy contracts are deemed compliant with the EPS except in cases where intermittent renewable energy is firmed and shaped with generation from non-renewable resources.

The PPA is exempt from the EPS because it concerns an RPS-eligible facility with a capacity factor less than 60 percent and will not use non-renewable resources to firm and shape its intermittent energy.

Procurement Review Group (PRG) concerns

PG&E's PRG consists of: the California Department of Water Resources, the Union of Concerned Scientists, the Division of Ratepayer Advocates, the Coalition of California Utility Employees, The Utility Reform Network, Jan Reid as a PG&E ratepayer, and the Commission's Energy Division.

PG&E informed its PRG of the Copper Mountain negotiations on March 23, 2009, May 15, 2009, and June 12, 2009. Although Energy Division is a member of the PRG, it reserved judgment on the contract 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, PG&E's Procurement Review Group (PRG) participated in the review of the PPA. The PRG feedback, as described in the confidential

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[15] "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).

information provided with the AL, did not provide a basis for disapproval of the PPA.

Comparison to the results of PG&E's 2008 Solicitation

PG&E determined that the PPA is favorable relative to proposals received in response to PG&E's 2008 solicitation because the PPA's market valuation is reasonable compared with other bids from its 2008 solicitation. The PPA also has value to PG&E's ratepayers relative to bids received in their 2008 solicitation because the Project is considered highly viable and is expected to deliver in the near-term. (See Confidential Appendix B)

The PPA compares favorably to the results of PG&E's 2008 solicitation.

Cost Reasonableness

The MPR is used by the Commission to evaluate the reasonableness of prices of PPAs for RPS-eligible generation. Based on a 2011 expected commercial online date for the Project, the 20-year PPA exceeds the 2008 MPR.[16] The Commission's reasonableness review for RPS PPA prices also includes a comparison of the proposed PPAs to other proposed RPS projects from recent RPS solicitations, as well as, Commission approved projects. Using this analysis, we determine that the PPA price is reasonable. Confidential Appendix B includes a detailed discussion of the contractual pricing terms, including PG&E estimates of the total contract costs under the PPA.

The PPA meets the eligibility criteria for Above Market Funds[17] (AMFs) established in SB 1036.[18] While the PPA is eligible for AMFs, PG&E has

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[16] *See* Resolution E-4214.

[17] The $/MWh portion of the contract price that exceeds the MPR, multiplied by the expected generation throughout the contract term, represents the total AMFs for a given PPA.

[18] SB 1036 established the following criteria for AMF: (1) contract was selected through a competitive solicitation, (2) contract covers a duration of no less than 10 year, (3) contracted project is a new facility that will commence commercial operations after January 1, 2005, (4) contract is not for renewable energy credits, and (5) 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.

exhausted its AMFs provided by statute. Therefore, PG&E will voluntarily incur the above-MPR costs of the PPA.[19]

<u>The total all-in costs of the PPA are reasonable based on their relation to bids received in response to PG&E's 2008 solicitation.</u>

DRA filed a confidential protest to PG&E's advice letter

On August 17, 2009, DRA filed a confidential protest to AL 3500-E with the Commission. Because DRA's protest was filed confidentially we are limited in how we can respond in this Resolution. For the reasons discussed above, we find that the PPA is reasonable; accordingly we deny DRA's protest. (See Confidential Appendix A)

<u>RPS ELIGIBILITY AND CPUC APPROVAL</u>

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.[20]

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

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

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

(*Public Utilities Code Section 399.11 et seq.*), Decision 03-06-071, or other applicable law."[21]

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 a finding absolve any contracting party of its obligation to obtain CEC certification and/or to pursue remedies for breach of contract to ensure that only RPS-eligible generation is delivered and paid for under a Commission-approved 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.

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

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 November 13, 2009.

No comments were filed.

FINDINGS AND CONCLUSIONS

1. The PPA is consistent with PG&E's 2008 RPS Procurement Plan, approved by D.08-02-008.
2. The PPA is consistent with the resource needs identified in PG&E's 2008 Procurement Plan.
3. The PPA includes the Commission-adopted RPS standard terms and conditions including those deemed "non-modifiable".
4. The PPA will contribute to PG&E's minimum quantity requirement established in D.07-05-028.
5. The PPA is exempt from the EPS because it concerns an RPS-eligible facility with a capacity factor less than 60 percent and will not use non-renewable resources to firm and shape its intermittent energy.
6. Pursuant to D.02-08-071, PG&E's Procurement Review Group (PRG) participated in the review of the PPA.
7. The PRG feedback, as described in the confidential information provided with the advice letter, did not provide a basis for disapproval of the PPA.
8. The PPA compares favorably to the results of PG&E's 2008 solicitation
9. The total expected costs of the PPA are reasonable based on their relation to bids received in response to PG&E's 2008 solicitation.
10. Provided the generation is from an eligible renewable energy resource, payments made by PG&E under the PPA are fully recoverable in rates over

the life of the PPA, subject to Commission review of PG&E's administration of the PPA.

11. 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 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 the PPA to count towards an RPS compliance obligation. Nor shall that finding absolve PG&E of its obligation to enforce compliance with Standard Term and Condition 6, set forth in Appendix A of D.08-04-009, and included in the 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 3500-E should be approved effective today without modifications.

THEREFORE IT IS ORDERED THAT:

1. Pacific Gas and Electric Company's Advice Letter 3500-E, requesting Commission review and approval of power purchase agreements with El Dorado Energy, LLC, is approved without modification.

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 December 17, 2009; the following Commissioners voting favorably thereon:

/s/ PAUL CLANON
PAUL CLANON
Executive Director

MICHAEL R. PEEVEY
PRESIDENT
DIAN M. GRUENEICH
JOHN A. BOHN
RACHELLE B. CHONG
TIMOTHY ALAN SIMON
Commissioners

Confidential Appendix A

Disposition of Confidential Protest from the
Division of Ratepayer Advocates

[REDACTED]

Confidential Appendix B

Summary of PPA terms and conditions

[REDACTED]