PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

I. D. #5968

ENERGY DIVISION **RESOLUTION E-4021**
October 5, 2006

REDACTED

R E S O L U T I O N

Resolution E-4021. Pacific Gas & Electric (PG&E) Company requests approval of the Bottle Rock, Liberty, and HFI renewable resource procurement contracts. These contracts are approved without modifications

By Advice Letter 2827-E filed on May 15, 2006.

SUMMARY

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

PG&E's request for approval of the renewable resource procurement contract is granted pursuant to Decision (D.) 05-07-039. The energy acquired from this contract will count towards PG&E's Renewable Portfolio Standard (RPS) requirements.

Generating facility	Type	Term Years	MW Capacity	GWh Energy	Location
Bottle Rock	Geothermal	10-15	17-55	119-385	Sonoma, CA
Liberty	Biomass	15	5-10	33-35	Bakersfield, CA
HFI	Biomass	10	20-40	140-280	La Pine, OR

Deliveries from these power purchase agreements (PPA) are priced below the 2005 market price referent (MPR) and thus do not require supplemental energy payments (SEPs) from the California Energy Commission (CEC).

Confidential information about the contract should remain confidential

This resolution finds that certain material filed under seal pursuant to Public Utilities (Pub. Util.) Code Section 583 and General Order (G.O.) 66-C should be kept confidential to ensure that market sensitive data does not influence the behavior of bidders in future RPS solicitations.

BACKGROUND

The RPS Program requires each utility to increase the amount of renewable energy in its portfolio

The California Renewables Portfolio Standard (RPS) Program was established by Senate Bill 1078, effective January 1, 2003. It requires that a retail seller of electricity such as SDG&E purchase a certain percentage of electricity generated by Eligible Renewable Energy Resources (ERR). The RPS program is set out at Public Utilities Code Section 399.11, et seq. Each utility is required to increase its total procurement of ERRs by at least 1% of annual retail sales per year so that 20% of its retail sales are supplied by ERRs by 2017.

The State's Energy Action Plan (EAP) called for acceleration of this RPS goal to reach 20 percent by 2010. This was reiterated again in the Order Instituting Rulemaking (R.04-04-026) issued on April 28, 2004[1], which encouraged the utilities to procure cost-effective renewable generation in excess of their RPS annual procurement targets[2] (APTs), in order to make progress towards the goal expressed in the EAP.[3]

Starting in 2004, the Commission established an APT for each utility, which consists of two separate components: the baseline, representing the amount of renewable generation a utility must retain in its portfolio to continue to satisfy its obligations under the RPS targets of previous years; and the incremental procurement target[4] (IPT), defined as at least one percent of the previous year's total retail electrical sales, including power sold to a utility's customers from its DWR contracts.

---

[1] http://www.cpuc.ca.gov/Published/Final_decision/36206.htm

[2] APT - The amount of renewable generation, in MWh, in the LSE's portfolio as a result of past procurement, either pre-RPS or as a result of previous RPS solicitations. Thus, the baseline will grow for each IOU with every successful RPS solicitation. General procurement may also yield RPS-eligible generation.

[3] Most recently reaffirmed in D.05-07-039

[4] IPT - The additional amount of renewable generation the LSE is expected to procure as a result of an annual RPS solicitation. The annual IPT is calculated by Energy Division on an MWh basis, corresponding to the annual generation increments the LSE must procure in order to reach 20% by 2010.

R.04-04-026 established procurement guidelines for the RPS Program

The Commission has issued a series of decisions that establish the regulatory and transactional parameters of the utility renewables procurement program. On June 19, 2003, the Commission issued its "Order Initiating Implementation of the Senate Bill 1078 Renewable Portfolio Standard Program," D.03-06-071. On June 9, 2004, the Commission adopted its Market Price Referent methodology[5] for determining the Utility's share of the RPS seller's bid price, as defined in Public Utilities Code Sections 399.14(a)(2)(A) and 399.15(c). On the same day the Commission adopted standard terms and conditions for RPS power purchase agreements in D.04-06-014 as required by Public Utilities Code Section 399.14(a)(2)(D). Instructions for evaluating the value of each offer to sell products requested in a RPS solicitation were provided in D.04-07-029.

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

On May 15, 2006, PG&E filed Advice Letter (AL) 2827-E requesting Commission approval of three renewable procurement contracts: Bottle Rock Power LLC (Bottle Rock), Liberty V Biofuels LLC (Liberty), and HFI Bio Power Project LLC (HFI). The PPAs result from PG&E's August 4, 2005 solicitation for renewable bids, which was authorized by D.05-07-039. The Commission's approval of the PPAs will authorize PG&E to accept future deliveries of incremental supplies of renewable resources and contribute towards the 20 percent renewables procurement goal required by California's RPS statute.[6] On March 1, 2006, PG&E reported its cumulative adjusted (2003-2005) IPT for 2005 as 1,149 GWh. With the approval of the three new PPAs[7], PG&E will have procured or contracted for deliveries of up to 735 GWh towards that target, or slightly more than 1 percent of its 2005 IPT.[8]

---

[5] D.04-07-015

[6] California Public Utilities Code section 399.11 et seq., as interpreted by D.03-07-061, the "Order Initiating Implementation of the Senate Bill 1078 Renewables Portfolio Standard Program", and subsequent CPUC decisions in Rulemaking (R.) 04-04-026.

[7] The California Energy Commission is responsible for determining the RPS-eligibility of a renewable generator. See Public Utilities Code Sect. 399.12 and CPUC decision D.04-06-014.

[8] See March 1, 2006 Compliance Filing of Pacific Gas and Electric, page 5.

PG&E requests final "CPUC Approval" of PPAs

PG&E requests the Commission to issue a resolution containing the findings required by the definition of "CPUC Approval" in Appendix A of D.04-06-014. In addition, PG&E requests that the Commission issue a resolution that approves:

1. Approves each PPA in its entirety, including payments to be made by PG&E, subject to CPUC review of PG&E's administration of the Agreement.

2. Finds that any procurement pursuant to these Agreements constitutes 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.), Decision 03-06-071, or other applicable law;

3. Finds that any procurement pursuant to these Agreements constitutes incremental procurement or procurement for baseline replenishment by PG&E from eligible renewable energy resources for purposes of determining PG&E's compliance with any obligation to increase its total procurement of eligible renewable energy resources that it may have pursuant to the California Renewables Portfolio Standard, Decision 03-06-071, or other applicable law;

4. Finds that any indirect costs of renewables procurement identified in Section 399.15 (a)(2) shall be recovered in rates.

PG&E's Procurement Review Group participated in review of the contract

In D. 02-08-071, the Commission required each utility to establish a "Procurement Review Group" (PRG) whose members, subject to an appropriate non-disclosure agreement, would have the right to consult with the utilities and review the details of:

1. Overall transitional procurement strategy;
2. Proposed procurement processes including, but not limited to, RFO; and
3. Proposed procurement contracts before any of the contracts are submitted to the Commission for expedited review.

The PRG for PG&E consists of: California Department of Water Resources (DWR), California Energy Commission (CEC), the Commission's Energy Division, Natural Resources Defense Council (NRDC), Union of Concerned Scientists (UCS), Office of Ratepayer Advocates (ORA), and The Utility Reform Network (TURN).

PG&E provided its PRG with reports on the progress of its 2005 RPS solicitation on five occasions.[9] The first briefing occurred on September 30, 2005, and focused on the results of PG&E's August 4, 2005 solicitation. The second briefing was October 24, 2005 at which PG&E reviewed the results of the bid evaluation and provided its preliminary short-list. At the third PRG briefing on December 1, 2005, PG&E reviewed the status of negotiations with short-listed bidders and responded to concerns raised at the previous presentation. At the January 12 and March 29, 2006 meetings, PG&E provided the PRG with an overview of the projects it considered most likely to proceed to final agreement. These presentations included a general overview of the negotiated terms and conditions of these and other PPAs.

On May 3, 2006, PG&E provided the PRG with a status report of the 2005 Solicitation. The three projects that are the subject of this advice letter were described and presented in the context of the Solicitation results. There was no opposition to PG&E's execution of these contracts.

The PRG members have expressed general satisfaction with the manner in which PG&E arrived at its 2005 RPS shortlist and the resulting PPAs. The PRG supported PG&E moving forward with these PPAs. An overview of the PRG material, the PRG presentations, and minutes of the above-described PRG meetings are provided as confidential Appendix D.

Although Energy Division is a member of the PRG, it reserved its conclusions for review and recommendation on the contracts to the resolution process. Energy Division had to review the modifications independently, and allow for a full protest period before concluding its analysis.

[9] While the Energy Division is a member of the PRG, its representatives did not attend any of the briefings before it had issued the draft 2005 MPR for public comment, which occurred on April 13, 2006.

NOTICE

Notice of AL 2827-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 III-G of General Order 96-A.

PROTESTS

Advice Letter 2837-E was not protested.

DISCUSSION

Description of the projects

The following table summarizes the substantive features of the PPAs. See confidential Appendix B for a detailed discussion of contract prices, terms, and conditions:

Generating facility	Type	Term Years	MW Capacity	GWh Energy	Location
Bottle Rock	Geothermal	10-15	17-55	119-385	Sonoma, CA
Liberty	Biomass	15	5-10	33-35	Bakersfield, CA
HFI	Biomass	10	20-40	140-280	La Pine, OR

PPAs are consistent with PG&E's CPUC adopted 2005 RPS Plan

California's RPS statute requires the Commission to review the results of a renewable energy resource solicitation submitted for approval by a utility. The Commission will then accept or reject proposed PPAs based on their consistency with the utility's approved renewable procurement plan.[10] PG&E's 2005 RPS plan was approved by D.05-07-039 on July 21, 2005. As required by statute, it includes an assessment of supply and demand to determine the optimal mix of renewable generation resources, consideration of compliance flexibility mechanisms established by the Commission, and a bid solicitation setting forth the need for renewable generation of various operational characteristics.[11]

---

[10] Public Utilities Code (Pub. Util. Code) section 399.14 subsec. (c).

[11] Pub. Util. Code sec. 399.14 subsec.(a)(3).

The stated goal of PG&E's 2005 RPS Solicitation Plan was to procure approximately 1-2 percent of PG&E's retail sales volume or between 700 and 1,400 GWh per year with delivery terms of 10, 15, or 20 years. Participants could submit offers for four specific products – as-available, baseload, peaking, and dispatchable resources.

PPA fits with identified renewable resource needs

In its approved 2005 RPS Plan, PG&E's portfolio assessment showed a "medium" need for baseload resources beginning in 2007. In order to meet the 20 percent renewable energy target by 2010, PG&E requires incremental energy deliveries from newly contracted resources at an average rate of approximately 700 to 1,400 GWh per year. The PPAs under consideration are expected to contribute significantly toward PG&E's 2010 RPS target.

PPA selection consistent with RPS Solicitation Protocol

The proposed PPAs are consistent with the RPS plan because they were achieved through PG&E's adherence to its Solicitation Protocol:

1. PG&E generally followed the RPS Solicitation schedule set forth in its Solicitation Protocol, but ultimately, the schedule for concluding negotiations was necessarily extended.
2. Using the approved bid solicitation protocol and forms of power purchase agreements, PG&E commenced its solicitation on August 4, 2005. Bids were received until September 15, consistent with the published schedule. All of the accepted bids conformed to the RPS protocol; that is, they offered power from eligible renewable energy resources, they were submitted using the standard forms, they executed the bid protocol and confidentiality agreements, and they posted the required bid deposit.
3. These bids were evaluated and scored in the manner prescribed in the Solicitation Protocol. In particular, evaluation of the offer price took into account PG&E's published Time of Delivery factors and imputed the potential cost of transmission adders. PG&E scored the offers pursuant to a methodology that attributed the proper weight to market valuation, portfolio fit, credit and other non-price factors of the Solicitation Protocol.
4. The bids were ranked according to the protocols, and were placed on PG&E's "Short List" and presented to PG&E's PRG on October 24, 2005. PG&E notified short-listed bidders and PG&E negotiations with short-

listed bidders once they submitted the required bid deposit. The interim results of negotiations were presented to the PRG on several occasions between December 2 and May 3, 2006. At those meetings, the PRG had no objection to PG&E proceeding to execute the PPAs presented by this advice letter.

Bid evaluation process consistent with Least-Cost Best Fit (LCBF) decision

The LCBF decision[12] directs the utilities to use certain criteria in their bid ranking. It offers guidance regarding the process by which the utility ranks bids in order to select or "shortlist" the bids with which it will commence serious negotiations. Much of the bid ranking criteria described in the LCBF decision is incorporated in PG&E's Solicitation Protocol and is discussed below.

Market Valuation

In its "mark-to-market analysis," which PG&E's analyst described at the Least Cost Best Fit workshop on May 25, 2004, the present value of the bidder's payment stream is compared with the present value of the product's market value to determine the benefit (positive or negative) from the procurement of the resource, irrespective of PG&E's portfolio. PG&E evaluates the bid price and indirect costs, such as the costs to the utility transmission system caused by interconnection of the resource to the grid or integration of the generation into the system-wide electrical supply.[13]

Portfolio Fit

Portfolio fit considers how well an offer variation's features match PG&E's portfolio needs. This analysis includes the anticipated transaction costs involved in any energy remarketing (i.e., the bid-ask spread) if the contract adds to PG&E's net long position. Because these deliveries are anticipated to occur at a time when PG&E is experiencing moderate need for baseload energy, the acceptance of these baseload deliveries should not result in significant remarketing costs.

Consideration of Transmission Adders

[12] D.04-07-029

[13] PG&E's RPS Renewable Energy Procurement Plan, June 24, 2004, page (p.)6, lines (ll.) 4-18.

The RPS statute requires the "least cost, best fit" eligible renewable resources to be procured. Under the RPS program, the potential customer cost to accept energy deliveries from a particular project must be considered when determining a project's value for bid ranking purposes. PG&E's 2005 transmission ranking cost (TRC) report[14] identified the remaining available transmission capacity and upgrade costs for PG&E substations at which renewable resources are expected to interconnect.

PG&E determined the TRC cluster at which each shortlisted project would interconnect to the transmission grid. Consistent with Commission Decisions, based on the potential transmission congestion, the associated proxy transmission network upgrades and the associated capital costs that may be need to accommodate delivery at this cluster, PG&E assigned a transmission adder to each Offer for evaluation.

Terms and conditions of delivery

Each project will be its own scheduling coordinator. The points of delivery will be NP-15 and ZP-26. Provision has been made for alternate points of delivery if the Independent System Operator's current zonal delivery system is changed from zonal to nodal. No other transmission-related issue required accommodation in the PPA

Consistency with Adopted Standard Terms and Conditions

The Commission set forth standard terms and conditions to be incorporated into RPS agreements in D.04-06-014. Standard Terms and Conditions identified in confidential Appendix B of that decision as "may not be modified" have not been modified.

During the course of negotiations, the parties identified a need to modify some of the standard terms in order to reach agreement. These terms had all been designated as subject to modification upon request of the bidder in D.04-06-014. See confidential Appendix B for a detailed description and comparison of each term that has been materially modified from its form in the 2005 Solicitation.

Contract prices are below the 2005 MPR

---

[14] Filed August 22, 2005

The levelized contract price for the project does not exceed the 2005 MPR.[15] Furthermore, the contract price payments are below the MPR and *per se* reasonable as measured according to the net present value calculations explained in D.04-06-015, D.04-07-029, and D.05-12-042. The net present value of the sum of payments to be made under the PPA is less than the net present value of payments that would be made at the market price referent for the anticipated delivery. Confidential Appendix C demonstrates that the levelized contract payments, which have been adjusted for the appropriate project on-line date, are below the 2005 MPR.

No supplemental energy payments are necessary for the proposed PPAs.

Qualitative factors were considered during bid evaluation

PG&E considered qualitative factors as required by D.04-07-029. While it was possible to include a diverse mix of renewable technologies in the short list, eventually certain technologies were found to confer significantly greater customer benefits. None of the bids asserted that the proposed project would contribute to local reliability and none of the three projects claimed to posses any of the qualitative factors identified for special consideration by D.04-07-029.

PPAs are viable projects

PG&E believes that the projects are viable because:

<u>Project Milestones</u>

The PPAs identify the agreed upon project milestones, including, interconnection agreement, project financing, construction start and commercial operation deadlines.

<u>Financebility of resource</u>

PG&E believes that the projects selected have a reasonable likelihood of being financed and completed as required by the PPAs and will be available to deliver energy by the guaranteed commercial operation date.

<u>Production tax Credit</u>

The PPAs are not contingent nor is the pricing dependent on the extension of federal production tax credits as provided in Section 45 of the Internal Revenue Code of 1986, as amended.

---

[15] 2005 MPR Resolution E-3980

<u>Sponsor's creditworthiness and experience</u>

The bidder was required to provide credit-related information as part of its bid. PG&E has reviewed this information and is satisfied that each of the party to the PPAs possesses the necessary credit and experience to perform as required by the party's PPA.

Confidential information about the contracts should remain confidential

Certain contract details were filed by PG&E under confidential seal. Energy Division recommends that certain material filed under seal pursuant to Public Utilities (Pub. Util.) Code Section 583 and General Order (G.O.) 66-C, and considered for possible disclosure, should be kept confidential to ensure that market sensitive data does not influence the behavior of bidders in future RPS solicitations.

COMMENTS

This is an uncontested matter in which the decision grants the requested relief. Therefore, pursuant to Public Utilities Code § 311(g)(2), the otherwise applicable 30-day period for public review and comment is being waived.

FINDINGS

1. PG&E filed Advice Letter 2827-E on May 15, 2006, requesting Commission review and approval of a new renewable energy contract: Bottle Rock Power LLC (Bottle Rock), Liberty V Biofuels LLC (Liberty), and HFI Bio Power Project LLC (HFI).
2. The RPS Program requires each utility, including PG&E, to increase the amount of renewable energy in its portfolio to 20 percent by 2017, increasing by a minimum of one percent per year. The Energy Action Plan (EAP) called for acceleration of this goal to reach 20 percent by 2010. The 20% by 2010 target was reaffirmed in D.05-11-025.
3. D.05-07-039 directed the utilities to issue their 2005 renewable RFOs, consistent with their renewable procurement plans.
4. PG&E issued its RFO on August 4, 20054.
5. D.04-06-014 set forth standard terms and conditions to be incorporated into RPS PPAs.

6. Levelized contract prices below the 2005 MPR are considered *per se* reasonable as measured according to the net present value calculations explained in D.04-06-015, D.04-07-029, and D.05-12-042.
7. D.04-07-029 adopted least-cost, best-fit criteria which the utilities must use in their selection process after the RFO has been closed.
8. The Commission required each utility to establish a Procurement Review Group (PRG) to review the utilities' interim procurement needs and strategy, proposed procurement process, and selected contracts.
9. PG&E briefed its PRG regarding these contracts on September 30, 2005, October 24, 2005, December 1, 2005, January 12, 2006, March 29, 2006, and on May 3, 2006. The members of PG&E's PRG either supported or did not oppose the approval of this contract.
10. Certain material filed under seal pursuant to Public Utilities (Pub. Util.) Code Section 583 and General Order (G.O.) 66-C, and considered for possible disclosure, should not be disclosed. Accordingly, the confidential appendices, marked "**[REDACTED]**" in the redacted copy, should not be made public upon Commission approval of this resolution.
11. The proposed contract prices are below the 2005 MPRs released in Resolution E-3980.
12. The Commission has reviewed the proposed contracts and finds them to be consistent with PG&E's approved 2005 renewable procurement plan.
13. Procurement pursuant to these Agreements constitutes 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.), Decision 03-06-071, or other applicable law;
14. Procurement pursuant to these Agreements constitutes incremental procurement or procurement for baseline replenishment by PG&E from eligible renewable energy resources for purposes of determining PG&E's compliance with any obligation to increase its total procurement of eligible renewable energy resources that it may have pursuant to the California Renewables Portfolio Standard, Decision 03-06-071, or other applicable law;
15. Any indirect costs of renewables procurement identified in Section 399.15(a)(2) shall be recovered in rates;

16. AL 2827-E should be approved without modifications.

THEREFORE IT IS ORDERED THAT:

1. Advice Letter AL 2827-E is approved without modifications

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 October 5, 2006; the following Commissioners voting favorably thereon:

STEVE LARSON
Executive Director

Redacted Appendix A

Overview of 2005 Solicitation

Redacted Appendix B-1

Contract Summary: Bottle Rock Power LLC

Redacted Appendix B-2

Contract Summary: Liberty V Biofuels LLC

Redacted Appendix B-3

Contract Summary: Bio Power Project LLC

Redacted Appendix C

MPR – SEP Worksheet

Redacted Appendix D

Summary of PRG Meetings

Redacted Appendix E

Projects' Contribution Toward RPS Goals