

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA
ENERGY DIVISION

I. D. # 6208
RESOLUTION E-4041
December 14, 2006

R e d a c t e d

R E S O L U T I O N

Resolution E-4041. Pacific Gas & Electric (PG&E) Company requests approval of the Northwest Geothermal and IAE Truckhaven I renewable resource procurement contracts. These contracts are approved without modifications.

By Advice Letter 2863-E filed on July 25, 2006

SUMMARY

PG&E's renewable contracts comply with the Renewable Portfolio Standard (RPS) procurement guidelines and are approved

PG&E's request for approval of the renewable resource procurement contracts is granted pursuant to Decision (D.) 05-07-039. The energy acquired from these contracts will count towards PG&E's Renewable Portfolio Standard (RPS) requirements. In addition, the contract price for each contract, at or below the Market Price Referent, is fully recoverable in rates over the life of the contracts, subject to Commission review of PG&E's administration of the contracts.

Generating Facility	Type	Term	MW	GWh	Online Date	Location
Northwest Geothermal	Geo	20	30 -120	210 - 840	1/1/2010	Newberry, OR
IAE Truckhaven	Geo	20	49	370	7/01/2010	Truckhaven, CA

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 PG&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 On September 26, 2006, Governor Schwarzenegger signed Senate Bill 107 (SB 107, Chapter 464, Statutes of 2006), which officially accelerates the State's RPS targets to 20 percent by 2010. The bill takes effect on January 1, 2007.

In addition, 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 target² (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 IPT - The incremental procurement target (IPT) represents the amount of RPS-eligible procurement that the LSE must purchase in a given year, over and above the total amount the LSE was required to procure in the prior year. An LSE's IPT equals at least 1% of the previous year's total retail electrical sales, including power sold to a utility's customers from its DWR contracts.

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 methodology³ 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 two new renewable energy contracts

On July, 25th 2006, PG&E filed Advice Letter (AL) 2863-E requesting Commission approval of two renewable procurement contracts: Northwest Geothermal Company (Newberry) and IAE Truckhaven I, LLC (Truckhaven). 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.⁴ On March 1, 2006, PG&E reported its cumulative adjusted (2003-2005) IPT for 2005 as 1,149 GWh. With the approval of these two new PPAs⁵, PG&E will have contracted for deliveries eligible to meet 2010's IPT and/or be used for earmarking purposes in year 2007, 2008, and 2009.⁶

PG&E requests final "CPUC Approval" of PPAs

³ D.04-07-015

⁴ 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.

⁵ 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.

⁶ D.06-10-050

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 contracts

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.

During the 2005 RPS solicitation, the PRG for PG&E consisted 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. 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 two projects that are the subject of this advice letter were described and presented in the context of the Solicitation results. PRG members 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 two PPAs.

Although Energy Division is a member of the PRG, it reserved its judgment on the contracts until the resolution process. Energy Division reviewed the transactions independent of the PRG, and allowed for a full protest period before concluding its analysis.

NOTICE

Notice of AL 2863-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 2863-E was not protested.

DISCUSSION

Description of the projects

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

Generating Facility	Type	Term	MW	GWh	Online Date	Location
Northwest Geothermal	Geo	20	30 -120	210 - 840	1/1/2010	Newberry, OR
IAE Truckhaven	Geo	20	49	370	7/01/2010	Truckhaven, CA

The 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.⁷ 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.⁸

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. See confidential Appendix C for more details.

⁷ Public Utilities Code (Pub. Util. Code) section 399.14 subsec. (c).

⁸ Pub. Util. Code sec. 399.14 subsec.(a)(3).

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 began 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 decision⁹ 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.

⁹ D.04-07-029

Market Valuation

In its “mark-to-market analysis,” PG&E compares the present value of the bidder’s payment stream 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.¹⁰

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

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) report¹¹ 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

Both Newberry and Truckhaven will be their own scheduling coordinator. The points of delivery will be COB and SP-15 , respectively. Provisions have been

¹⁰ PG&E’s RPS Renewable Energy Procurement Plan, June 24, 2004, page (p.)6, lines (ll.) 4-18.

¹¹ Filed August 22, 2005

made for alternate points of delivery if the Independent System Operator's current zonal delivery system is changed from zonal to nodal.

Transmission upgrades

Truckhaven's first point of interconnection will be with the Imperial Irrigation District (IID), and the Delivery Point is SP-15. Although there is congestion between IID and SP-15, this problem may be mitigated by a transmission project to the Salton Sea area currently proposed by SDG&E and IID (e.g., Sunrise/Powerlink and GreenPath). The Sunrise/Powerlink and GreenPath transmission project is planned to be completed at approximately the same time as Truckhaven will come on-line in 2010. Truckhaven is responsible for mitigating physical transmission constraints, if any, between its project and SP-15. Such transmission constraints will not excuse Truckhaven from its annual performance requirements or delivery obligations under the PPA.

On August 3, 2006, the California Independent System Operator (Cal_ISO) Board of Governors¹² unanimously approved the Sunrise/Greenpath Powerlink transmission line proposed jointly by San Diego Gas and Electric (SDG&E), IID, and Citizens Energy. SDG&E has filed its amended project. An application¹³ has been filed with the Commission. A final ruling is expected by early 2008. PG&E will move the power from SP-15 to their service area, NP-15.

Newberry's delivery point is the California Oregon Border "COB", the point of interconnection between BPA and ISO, or its successor location. The project is expected to interconnect at La Pine, Oregon. Northwest Geothermal is responsible for the interconnection of their project and for delivery of the power from the project to COB. PG&E will be responsible for bringing the power from COB into California.

Newberry submitted its interconnection application, deposit, and firm transmission request to Bonneville Power Association (BPA), in January 2006. Additional process payments have been paid pursuant to BPA's ongoing process. Newberry has represented that it is in the BPA queue for transmission capacity beginning in 2012, approximately two years after their on-line date. Based on discussions with market participants that hold transmission capacity on BPA's lines, Newberry likely will rely on short term firm transmission products or

¹² <http://www.caiso.com/1847/1847bb8a57f70.pdf>

¹³ <http://www.sdge.com/sunrisepowerlink/CPUC.shtml>

arrangements with current transmission rights holders until 2012. The Major California Owners of the California-Oregon Intertie¹⁴ (COI) are proposing a 300MW increase in the COI rating to be completed by the end of 2008, which could help with Newberry's queue position.

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".

Regarding modifiable terms and conditions, the parties identified a need to modify some of the modifiable standard terms in order to reach agreement. These terms had all been designated as subject to modification upon request of the bidder in Appendix A of D.04-06-014.

Contract prices are below the 2005 MPR

If the levelized contract payments are below the MPR¹⁵ the contract is 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. The net present value of the sum of payments to be made under the two PPAs are 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, therefore, 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. Neither of the bids asserted that the proposed project would

¹⁴ The Major California Owners of the California-Oregon Intertie are composed of the Administrative Representatives under the Owners Coordinated Operation Agreement between the Transmission Agency of Northern California (TANC), the Pacific Gas & Electric Company (PG&E), and the Western Area Power Administration (Western).

¹⁵ 2005 MPR Resolution E-3980

contribute to local reliability or 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:

Project Milestones

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

Financeability of resource

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.

Both Newberry's and Truckhaven's lead partners, Davenport Resources and Iceland American Energy LLC., respectively, are experienced in the development and financing of geothermal projects.

Production Tax Credit

The Truckhaven PPA contains a unilateral right for Truckhaven to terminate the PPA in the event that PTC legislation is not enacted by December 31, 2007 to extend the federal production tax credit to apply to facilities placed in service by December 10, 2010.

The Northwest Geothermal PPA is 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.

Transmission

The viability of Truckhaven is impacted by transmission constraints, although the Sunrise/Powerlink and GreenPath transmission project is planned to be completed at approximately the same time as Truckhaven will come on-line in 2010. Should transmission relief not come in time for Truckaven's on-line date, PG&E's estimated cost to bring the power to their service area will continue longer than expected.

Newberry will construct a 115 kV generation interconnection line (gen-tie), approximately 5 miles in length, to deliver power from the project to the California-Oregon Border Trading Hub (COB).

Sponsor's creditworthiness and experience

The bidders were required to provide credit-related information as part of their bid. PG&E has reviewed this information and is satisfied that each of the party to the PPAs possess 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 OF FACT

1. PG&E filed Advice Letter 2863-E on July 25, 2006, requesting Commission review and approval of two new renewable energy contracts: Northwest Geothermal Company (Newberry) and IAE Truckhaven I, LLC (Truckhaven).
2. PG&E issued its RFO on August 4, 2005.
3. PG&E briefed its Procurement Review Group 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.
4. The proposed contract prices are below the 2005 MPRs released in Resolution E-3980.

CONCLUSIONS OF LAW

1. 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.
2. 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.
3. D.04-06-014 set forth standard terms and conditions to be incorporated into RPS PPAs.
4. D.05-07-039 directed the utilities to issue their 2005 renewable RFOs, consistent with their renewable procurement plans.
5. 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.
6. 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.
7. The Commission has reviewed the proposed contracts and finds them to be consistent with PG&E's approved 2005 renewable procurement plan.
8. These Agreements are reasonable and should be approved in their entirety.
9. The costs of the contracts between PG&E and Sellers are reasonable and in the public interest; accordingly, the payments to be made by PG&E are fully recoverable in rates over the life of the project, subject to CPUC review of PG&E's administration of the PPA.
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. 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;

12. 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;
13. Any indirect costs of renewables procurement identified in Section 399.15(a)(2) shall be recovered in rates;
14. AL 2863-E should be approved without modifications.

THEREFORE IT IS ORDERED THAT:

1. Advice Letter AL 2863-E is approved without modifications
2. The costs of the contracts between PG&E and Sellers are reasonable and in the public interest; accordingly, the payments to be made by PG&E, at or below the MPR, are fully recoverable in rates over the life of the project, subject to CPUC review of PG&E's administration of the PPA.
3. This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on December 14, 2006; the following Commissioners voting favorably thereon:

STEVE LARSON
Executive Director

Confidential Appendix A-1

Contract Summary: IAE Truckhaven

REDACTED

Redacted Appendix A-2

Contract Summary: Northwest Geothermal

REDACTED

Confidential Appendix B

MPR - SEP Worksheet

REDACTED

Confidential Appendix C

PROJECTS' CONTRIBUTION TOWARD 20% BY 2010 RPS GOALS

REDACTED