

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION

RESOLUTION E-4229
February 20, 2009

PUBLIC

R E S O L U T I O N

Resolution E-4229. Pacific Gas & Electric Company (PG&E) requests approval of a renewable energy procurement contract with High Plains Ranch II, LLC. The contract, which results from PG&E's 2007 Renewable Portfolio Standard solicitation, concerns a new solar photovoltaic project. This contract is approved with conditions.

By Advice Letter 3318-E filed on August 14, 2008.

SUMMARY

PG&E's renewable contract complies with the Renewable Portfolio Standard (RPS) procurement guidelines and is approved without modification.

PG&E filed advice letter (AL) 3318-E on August 14, 2008, requesting California Public Utilities Commission (Commission) review and approval of a renewable energy power purchase agreement (PPA) with a new solar PV facility, High Plains Ranch II, LLC (High Plains Ranch), a subsidiary of SunPower Corporation (SunPower). PG&E's execution of the PPA complies with the RPS procurement guidelines. PG&E's request for approval of the renewable resource procurement contract is granted pursuant to Decision (D.) 07-02-011, which approved PG&E's 2007 RPS Procurement Plan.

Generating Facility	Type	Term Years	MW Capacity	Annual Deliveries	Online Date	Project Location
High Plains Solar Farms	Solar PV	25, plus a 3 year phase-in period	210 MW	550 GWh	12/31/2012 (Phasing in 1/1/2010 to 12/31/2012.)	Carrizo Plain, San Luis Obispo County, California

Deliveries from this contract 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. The energy acquired from the PPA will count towards PG&E's RPS requirements.

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, General Order (G.O.) 66-C, and D.06-06-066 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 1078¹ and codified in California Public Utilities Code Section 399.11, et seq. The state required all retail sellers² of electricity, such as PG&E, to purchase a percentage of electricity from eligible renewable energy resources (ERR) by 2010. Originally, each retail seller was required to increase its total procurement from ERRs by at least 1 percent of annual retail sales per year so that 20 percent is reached, subject to the Commission's rules on flexible compliance, no later than 2017.

The State's Energy Action Plan (EAP) called for acceleration of this RPS goal to reach 20 percent by 2010 and 33 percent by 2020. The accelerated 20 percent goal was reiterated again in the Order Instituting Rulemaking (R.04-04-026) issued on April 28, 2004,³ which encouraged the utilities to procure cost-effective

¹ <http://www.energy.ca.gov/portfolio/documents/SB1078.PDF>

² For the purposes of the RPS program, retail seller includes electrical corporations, community choice aggregators and electric service providers.

³ http://www.cpuc.ca.gov/Published/Final_decision/36206.htm

renewable generation in excess of their RPS annual procurement targets⁴ (APTs), in order to make progress towards the goal expressed in the EAP.⁵

On September 26, 2006, Governor Schwarzenegger signed Senate Bill 107, which codified the State's RPS targets to 20 percent by 2010.⁶ Furthermore, on November 17, 2008, Governor Schwarzenegger issued Executive Order S-14-08, setting a goal for energy retailers to deliver 33 percent of electrical energy from renewable resources by 2020.⁷

The Commission has established procurement guidelines for the RPS Program

The Commission has issued a series of decisions that describe the regulatory and transactional framework of the RPS 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. Instructions for evaluating offers made in response to each RPS solicitation were provided in D.04-07-029.

On June 9, 2004, the Commission adopted its Market Price Referent (MPR) methodology⁸ for determining the Utility's share of the RPS seller's bid price, as defined in Pub. Util. Code Sections 399.14(a)(2)(A) and 399.15(c). On December 15, 2005, the Commission adopted D.05-12-042 which refined the MPR methodology for the 2005 RPS Solicitation.⁹ Subsequent resolutions adopted MPR values for the 2005, 2006, 2007 and 2008 RPS Solicitations.¹⁰

⁴ APT - An LSE's APT for a given year is the amount of renewable generation an LSE must procure in order to meet the statutory requirement that it increase its total eligible renewable procurement by at least 1% of retail sales per year.

⁵ Most recently reaffirmed in D.06-05-039.

⁶ SB 107, Chapter 464, Statutes of 2006.

⁷ <http://gov.ca.gov/executive-order/11072/>

⁸ D.04-07-015

⁹ http://www.cpuc.ca.gov/word_pdf/FINAL_DECISION/52178.pdf

¹⁰ Respectively, Resolution E-3980: http://docs.cpuc.ca.gov/word_pdf/FINAL_RESOLUTION/55465.doc, Resolution E-4049: http://docs.cpuc.ca.gov/word_pdf/FINAL_RESOLUTION/63132.doc, Resolution E-4118:

In D.06-10-050, as modified by D.07-03-046,¹¹ the Commission established methodologies to calculate each LSE's initial baseline procurement amount, annual procurement target (APT) and incremental procurement target (IPT).¹²

In D.06-10-019, the Commission implemented Pub. Util. Code 399.14(b)(2), which states that before the Commission can approve an RPS contract of less than ten years' duration, the Commission must establish "for each retail seller, minimum quantities of eligible renewable energy resources to be procured either through contracts of at least 10 years' duration (long-term contracts) or from new facilities commencing commercial operations on or after January 1, 2005." On May 3, 2007, the Commission approved D.07-05-028, which established a minimum percentage of the prior year's retail sales (0.25%) that must be procured with contracts of at least 10 years' duration or from new facilities in order for short-term contracts to be used towards RPS compliance.

Commission requires standard terms and conditions for RPS contracts

As required by Pub. Util. Code Section 399.14(a)(2)(D), the Commission adopted standard terms and conditions (STCs) for RPS power purchase agreements, including bilateral contracts, in D.04-06-014 (as modified by several subsequent decisions).^{13, 14} The Commission originally identified several STCs in confidential

http://www.cpuc.ca.gov/word_pdf/FINAL_RESOLUTION/73594.pdf, Resolution E-4214: http://docs.cpuc.ca.gov/word_pdf/FINAL_RESOLUTION/95553.pdf

¹¹ D.06-10-050, Attachment A, http://www.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/61025.PDF) as modified by D.07-03-046 (http://www.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/65833.PDF).

¹² The 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.

¹³ D.07-02-011 (as modified by D.07-05-057) http://www.cpuc.ca.gov/word_pdf/FINAL_DECISION/68383.pdf

¹⁴ D.07-11-025, Attachment A http://docs.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/75354.PDF

Appendix B of D.04-06-014 as non-modifiable. On November 16, 2007, the Commission adopted D.07-11-025, which reduced the number of non-modifiable terms from nine to four and refined the language of some of these terms in response to requests from market participants.¹⁵ The remaining non-modifiable STCs include “CPUC Approval”, “Definition of RECs and Green Attributes”, “Eligibility” and “Applicable law”. On April 10, 2008 the Commission adopted D.08-04-009, which compiled RPS STCs into one decision.¹⁶ Most recently, on August 21, 2008 the Commission adopted D.08-08-028, which clarified STC #2 the “Definition of RECs and Green Attributes.”¹⁷

Pursuant to SB 1036, above-MPR costs can now be recovered in rates

Pursuant to SB 1078 and SB 107, the California Energy Commission (CEC) was authorized to “allocate and award supplemental energy payments” to cover above-market costs¹⁸ of long-term RPS-eligible contracts executed through a competitive solicitation.¹⁹ The statute required that developers seeking above-market costs apply to the CEC for supplemental energy payments (SEPs).

The mechanism for awarding above-market costs to eligible renewable energy contracts negotiated through a competitive solicitation was modified by SB 1036, which was passed on October 14, 2007.²⁰ SB 1036 authorized the Commission to provide above-MPR cost recovery through electric retail rates for contracts that are deemed reasonable. Above-MPR cost recovery has a ‘cost limitation’ equal to the amount of funds currently accrued in the CEC’s New Renewable Resources

¹⁵ On February 1, 2007, PG&E and SCE jointly filed a petition for modification of D.04-06-014. On May 22, 2007, a PD was filed and served. Prior to the PD being voted on by the Commission, PG&E and SCE filed an amended petition for modification of D.04-06-014.

¹⁶ http://docs.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/81269.PDF

¹⁷ http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/86954.pdf

¹⁸ “Above-market costs” refers to the portion of the contract price that is greater than the appropriate market price referent (MPR).

¹⁹ Pub. Util. Code 399.15(d)

²⁰ Chapter 685, Statutes of 2007 (SB 1036)

Account, which had been established to collect SEP funds, plus the portion of funds that would have been collected through January 1, 2012. In addition, pursuant to SB 1036, Pub. Util. Code § 399.15(d)(2) provides that:

“The above-market costs of a contract selected by an electrical corporation may be counted toward the cost limitation if all of the following conditions are satisfied:

(A) The contract has been approved by the commission and was selected through a competitive solicitation pursuant to the requirements of subdivision(d) of Section 399.14.

(B) The contract covers a duration of no less than 10 years.

(C) The contracted project is a new or repowered facility commencing commercial operations on or after January 1, 2005.

(D) No purchases of renewable energy credits may be eligible for consideration as an above-market cost.

(E) 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.”

The CEC and the Commission are working collaboratively to implement SB 1036, which has an effective date of January 1, 2008.

The Commission has established requirements for participation of an Independent Evaluator in the RPS procurement process

In D.06-05-039, the Commission required each IOU to employ an independent evaluator (IE) for RPS solicitations. The IE’s role is to ensure that the solicitation process is undertaken in a fair, consistent, unbiased, and objective manner. The oversight of an IE during the IOUs’ procurement process should increase the likelihood that the best resources are selected and acquired consistent with the solicitation guidelines. The IE also provides additional oversight during contract negotiations.

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

On August 14, 2008, PG&E filed AL 3318-E requesting Commission approval of a new renewable procurement contract with High Plains Ranch. The PPA results

from PG&E's 2007 RPS Solicitation. The Commission's approval of the PPA will authorize PG&E to accept future delivery of incremental renewable generation.

PG&E requests that the Commission issue a resolution containing the findings necessary for "CPUC Approval" as defined in Appendix A of D.04-06-014. In addition, PG&E requests that the Commission issue a resolution that finds the following:

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 approved 2007 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 being addressed in Rulemaking ("R.") 06-02-013.

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.

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 each utility’s:

1. Overall interim procurement strategy;
2. Proposed procurement processes including, but not limited to, requests for offers (RFOs); 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), the Commission’s Energy Division, Union of Concerned Scientists (UCS), Division of Ratepayer Advocates (DRA), Coalition of California Utility Employees (CUE) and The Utility Reform Network (TURN).

PG&E informed its PRG of the High Plains project on several occasions. The first briefing occurred on September 21, 2007. PG&E provided additional briefings on November 30, 2007, January 9, 2008, March 14, 2008, April 11, 2008 and July 25, 2008. These presentations included a general overview of the negotiated terms and conditions, rationale for selection, and assessment of the PPA’s price.

None of the PRG members objected to PG&E’s execution of the PPA. Although Energy Division is a member of the PRG, it reserved judgment on the contract until the advice letter was filed. Energy Division reviewed the transaction independently of the PRG, and allowed for a full protest period before concluding its analysis.

NOTICE

Notice of AL 3318-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

Advice Letter 3318-E was not protested.

On September 3, 2008, TURN filed a timely confidential response with the Commission. PG&E filed timely reply comments with the Commission on September 10, 2008.

DISCUSSION

The following table summarizes the substantive features of the PPA. See confidential Appendix C for a detailed discussion of contract terms and conditions.

Generating Facility	Type	Term Years	MW Capacity	Annual Deliveries	Online Date	Project Location
High Plains Solar Farms	Solar PV	25, plus a 3 year phase-in period	210 MW	550 GWh	12/31/2012 (Phasing in 1/1/2010 to 12/31/2012.)	Carrizo Plain, San Luis Obispo County, California

Through its proposed PPA with High Plains Ranch, PG&E will procure generation from a new solar photovoltaic (PV) facility in Carrizo Plain. High Plains Ranch is a subsidiary of SunPower Corporation (SunPower), an experienced developer of PV panels and utility-scale PV projects. The High Plains project will utilize proven technology, specifically, monocrystalline silicon panels mounted on tilted single-axis tracking systems.

SunPower will build High Plains Ranch in 3 phases over 3 years from January 1, 2010 to December 31, 2012. PG&E expects energy deliveries from the project's first 21 MW by December 31, 2010. The second phase guarantees development of an incremental 63 MW by December 31, 2011. The remaining 126 MW are

contracted for completion by December 31, 2012. PG&E will receive and pay for deliveries during the phase-in periods. The contract term extends 25 years following the phase-in period for a total term of 28 years.

Energy Division has reviewed the proposed PPA on multiple grounds:

- Consistency with PG&E's Commission adopted 2007 RPS Procurement Plan
- Consistency of PG&E's RPS bid evaluation process with Least-Cost Best-Fit (LCBF) decision
- Consistency with RPS Standard Terms and Conditions (STC)
- Project Viability
- Reasonableness of the all-in levelized PPA price

PPA is consistent with PG&E's Commission adopted 2007 RPS Plan

California's RPS statute requires that the Commission review the results of a renewable energy resource solicitation submitted for approval by a utility.²¹ PG&E's 2007 RPS procurement plan (Plan) was approved by D.07-02-011 on February 15, 2007.²² 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.²³

PPA is consistent with identified resource needs

The stated goal of PG&E's 2007 RPS Solicitation Plan was to procure approximately 1-2 percent of PG&E's retail sales volume or between 750 and 1,500 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. This PPA is consistent with that Plan because, if

²¹ Pub. Util. Code, Section §399.14

²² http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/78817.pdf

²³ Pub. Util. Code, Section §399.14(a)(3)

approved, the 210 MW facility is expected to deliver an average of 550 GWh per year of as-available electricity, or approximately 0.7 percent of PG&E's forecasted retail sales in 2010, as forecasted by the CEC.

PPA selection is consistent with RPS Solicitation Protocol

The IE has verified that the PPA is consistent with PG&E's RPS Plan because it was 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.
2. PG&E used the approved bid solicitation protocol and forms of power purchase agreements. Consistent with the published schedule, the solicitation commenced on March 12, 2007, and bids were received until May 31, 2007. 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. The High Plains Ranch bid was 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 described in the Solicitation Protocol.
4. The High Plains Ranch bid was ranked according to the protocols, and was placed on PG&E's "Short List" and presented to PG&E's PRG on June 29, 2007.²⁴ PG&E notified short-listed bidders and PG&E's negotiations with short-listed bidders began once bidders submitted the required bid deposit. The interim results of negotiations were presented to the PRG on several occasions between September 2007 and July 2008.

²⁴ On July 30, 2007, PG&E submitted its 2007 RPS shortlist report to the service list for R.06-05-027 and confidential workpapers to Energy Division staff.

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

The LCBF decision directs the utilities to use certain criteria in their bid ranking.²⁵ 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. Much of the bid ranking criteria described in the LCBF decision is incorporated in PG&E’s Solicitation Protocol and is discussed below. The IE oversaw the process and concluded in its report that the protocol was followed and the process was conducted fairly.

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, regardless of PG&E’s larger portfolio. A product’s benefits are the market value of the energy, capacity, and ancillary services. PG&E evaluates the bid price and indirect costs, such as debt equivalence, and 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. The benefit/cost analysis yields a Net Market Value; a \$/MWh comparison of the value of generation from a proposed contract and PG&E’s forward curve, i.e., its proxy for firm system energy.

Portfolio Fit

Portfolio fit considers how well an offer variation’s features match PG&E’s portfolio needs, with special consideration of project online and generation profile. 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. The project produces most of its energy during PG&E’s Super-Peak Period when resources are most needed and it has a relatively high predictability for an “as available resource.” For these reasons, PG&E states that the PPA is a good fit for its portfolio needs.

²⁵ D.04-07-029

Consideration of Transmission Adders and Integration Costs

The RPS statute requires that the “least cost, best fit” eligible renewable resources 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. The Transmission Ranking Cost Report (TRCR),²⁶ for short-listing purposes only, estimates the additional costs associated with delivering energy from individual projects, absent detailed interconnection studies from the California Independent System Operator (CAISO) or other appropriate entity.

PG&E’s 2007 TRCR 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 TRCR cluster at which each short-listed project would interconnect to the transmission grid. For evaluation purposes and consistent with Commission decisions, PG&E assigned a transmission adder to each offer, based on the potential for transmission congestion and the costs of the associated proxy transmission network upgrades that may be needed to accommodate delivery at the appropriate cluster. High Plains Ranch was assigned Midway as its transmission cluster and assessed a \$3.47 transmission adder.

Energy Division Staff modified the 2005 Market Price Referent (MPR)

Background

In D.04-06-015²⁷, we adopted a methodology to calculate 10, 15, and 20 year MPR, for use in the 2004 renewable power solicitations, as generally set forth in Pub. Util. Code § 399.15. In addition, D.04-06-015 directed staff to prepare the MPR calculation and release it through a joint Assigned Commissioner and Administrative Law Judge (ALJ) ruling. Parties filed comments and reply comments on the staff report releasing the MPR calculation. Staff then prepared a resolution for the adoption of the final MPR for 2004.²⁸ D.04-06-015 also

²⁶ Submitted to the CPUC on November 6, 2006

²⁷ http://www.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/37383.DOC

²⁸ 2004 MPR Resolution:

http://www.cpuc.ca.gov/word_pdf/FINAL_RESOLUTION/48242.doc

authorized an evaluation process for contracts that do “not conform” to standard MPR terms.

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“Finally, we need to address the possibility that not all bidders may be able to submit bids that conform to the 10-, 15-, or 20-year contract term. A bidder may, for example, submit a 12-year contract bid. The MPR methodology, and associated model, set forth in this decision can be modified to calculate MPRs for different contract terms. If additional MPRs are required for bid evaluation, we authorize Energy Division to generate the necessary MPRs utilizing the same input values used to generate the 10-, 15-, or 20-year MPRs approved by this Commission. Alternatively, we could calculate all intermediate MPRs between years 10 and 20. When the utilities notify the Commission that negotiations with RPS bidders are complete, they should also indicate if the calculation of MPRs for terms other than 10, 15 or 20 years is necessary.

Calculation of 25-year MPR

PG&E executed a 25-year PPA with High Plains Ranch; however, the MPR methodology only calculates values for 10, 15 and 20-year projects. In order to accurately calculate the above-market costs of the contract, PG&E calculated a 25-year benchmark using the 2007 MPR model. Pub. Util. Code § 399.15, and D.04-06-014, give the Commission and Energy Division the authority to approve RPS contracts of essentially any term of years, so long as the Commission has established a way to evaluate them.

Resolution E-4118 formally adopted the 2007 MPR values for use in the 2007 RPS solicitation. The relevant 10, 15, and 20-year MPRs for projects executed in 2007, with a 2013 online date are the following; \$96.05, \$99.65, and \$102.75/MWh, respectively. The percentage change between the 15-year and 20-year MPR is 3.1%. Applying that percentage increase to the 20-year MPR of \$102.75 returns an approximate 25-year MPR of \$105.95/MWh.

Qualitative Factors

PG&E considered qualitative factors as required by D.04-07-029 and D.07-02-011 when evaluating the PPA. Approval of the PPA will add to the diversity of technologies in PG&E’s renewables portfolio.

Consistency with Adopted Standard Terms and Conditions

The proposed PPA conforms to the Commission's decisions requiring STCs for RPS contracts.

"May Not be Modified" Terms

The PPA does not deviate from the non-modifiable terms and conditions.

"May be Modified" Terms

During the course of negotiations, the parties identified a need to modify some of the modifiable standard terms in order to reach agreement. The changes were based upon mutual agreement reached during negotiations.

Contract price is reasonable and recoverable in rates

The levelized contract price is greater than the 2007 MPR,²⁹ but the project's contract price is reasonable when compared to other bids PG&E received through its 2007 RPS solicitation. Specifically, High Plains Ranch was competitive relative to other solar PV bids and PG&E believes its viability to be quite high. Analysis by Energy Division confirms that PG&E's decision to shortlist High Plains Ranch did not prevent PG&E from shortlisting any other project with a higher viability assessment. Confidential Appendix D includes a detailed discussion of the PPA's pricing terms and Confidential Appendix A includes analysis on project viability of shortlisted and rejected bids.

Project is Eligible for Above Market Funds

High Plains Ranch meets the eligibility criteria for Above Market Funds (AMFs) established in SB 1036 and provided in the background section of this resolution. This project is eligible for AMFs.

²⁹ See Resolution E-4118

Above Market Funds May Not be Available

PG&E may not have sufficient AMFs to meet the needs of this project.³⁰ The RPS statute provides that if PG&E's AMF fund is exhausted, PG&E may enter into to contracts to procure RPS eligible energy, and that this Commission may approve the costs of the contract in rates. Specifically, while the Commission must allow an IOU to limit its procurement to the quantity of eligible renewable energy resources that can be procured at or below the MPR once its AMF funds are depleted, § 399.15 (d)(4) states:

Nothing in this section prevents an electrical corporation from voluntarily proposing to procure eligible renewable energy resources at above-market prices that are not counted toward the cost limitation. Any voluntary procurement involving above-market costs shall be subject to commission approval prior to the expense being recovered in rates.

That PG&E has not yet hit its 20% RPS target, but has nonetheless contracted for enough above-MPR RPS-eligible energy to have met its cost limitation, implies either that the utility has been signing unnecessarily expensive contracts, or that the above-market funds set aside by the legislature in 2002 are insufficient for meeting the state's RPS goals in the manner envisioned by statute.

The Commission believes the latter to be true. The prices bid into RPS solicitations have risen consistently since 2002, and although the MPR has risen as well, the utilities are having difficulty filling their RPS procurement needs with viable, "least cost, best fit" projects, without exceeding their respective AMF allotments. As described above, the Independent Evaluator for PG&E's 2007 RPS solicitation concluded that PG&E conducted that solicitation and subsequent contract negotiations in an appropriate, fair, and reasonable manner. The High Plains Ranch PPA that resulted from that competitive solicitation represents a valuable balance of viability and cost reasonableness. Consequently, the Commission finds it to be consistent with PG&E's approved 2007 RPS Procurement Plan, and in the best interest of PG&E's ratepayers. See Confidential Appendix D, Table 2.

³⁰ The Commission's implementation of SB 1036 is in progress. A Resolution will adopt rules for how AMFs should be allocated and accounted for.

Project Development status

PG&E believes the High Plains Ranch project is highly viable and, on balance, staff agrees. Staff does note some potential sources of project risk, however, as discussed below.

Project Milestones

The PPA identifies the agreed upon project milestones, including the construction start date and commercial operation date. PG&E believes that the Seller's project development plan allows all milestones to be achieved. The Seller's obligation to meet these milestones is supported by performance assurance security.

Developer Experience

High Plains Ranch is a subsidiary of SunPower, a vertically-integrated company with extensive experience in residential, business, and utility-scale PV projects. SunPower designs and deploys solar cells, panels, roof tiles, and trackers, and has deployed more than 100 MW of their tracking solar PV systems worldwide. In December 2007, SunPower completed the largest solar PV project in the United States – a 14 MW solar PV plant at Nellis Air Force base in Nevada – and has completed even larger PV projects in Europe. Although High Plains Ranch is significantly larger than any of the projects SunPower has yet completed, the company has demonstrated the scalability of its technology and is expanding its production capacity.

Transmission upgrades

High Plains Ranch will connect at a new substation on the existing Midway-Morro Bay 230 kV line. The project's Interconnection Feasibility Study, completed in April 2008, indicates that High Plains Ranch will likely require only minimal transmission upgrades. The uncertainty around the timing and cost of those upgrades, however, is a source of some project risk.

Depending on the progress of projects ahead of it in the interconnection queue, High Plains Ranch may be responsible for the reconductoring of significant portions of 230 kV line. Detailed information on cost responsibility for needed transmission upgrades, and an interconnection agreement, are not expected until July 2009 and late 2010, respectively, since High Plains Ranch is in the Transition Cluster of the CAISO's Generation Interconnection Process Reform (GIPR).

Depending on the results of CAISO's studies and the progress of other generation projects in the area, achievement of High Plains Ranch's Phase 1 commercial operation date of December 31, 2010 may be a challenge. The phased build-out of the project is helpful in this sense, however, as early phases of the project may be deliverable pending completion of the network upgrades required for delivery of the full 210 MW project. We believe that a final operation date of December 31, 2012 is reasonable for the completion of all the required upgrades and interconnection of the full project.

Given the uncertainty associated with the transmission upgrades required by High Plains Ranch, the parties negotiated a cost sharing arrangement. We find the cost sharing arrangement to be an appropriate method of allocating risk. We are concerned, however, that the PPA leaves open the possibility that PG&E may choose to continue to reimburse High Plains Ranch for transmission upgrades, even after the total costs exceed an agreed-upon cap. Such an arrangement makes it impossible for the Commission to determine the maximum price ratepayers may be charged for this contract, and this is unacceptable. The Commission thus authorizes PG&E to enter into this pricing arrangement, but requires PG&E to seek Commission approval, by Advice Letter, should it wish to reimburse High Plains Ranch for more than the agreed upon cap on the cost of transmission upgrades.

PG&E's PPA also requires High Plains Ranch to attempt to accommodate PG&E requests that High Plains Ranch complete transmission upgrades not required under the LGIA, provided the completion of those upgrades would not delay the project. Such costs would be allocated under the same cost sharing mechanism developed for LGIA-required upgrades. We find it inappropriate for PG&E to fund, through this PPA, the completion of upgrades not necessary for the delivery of energy from High Plains Ranch. We therefore allow PG&E to reimburse High Plains Ranch, through this PPA, for only those transmission upgrades required under the project's LGIA. More discussion on this matter is in Confidential Appendix C.

Financeability of resource

PG&E believes that High Plains Ranch has a reasonable likelihood of being financed and developed as required by the PPA, and will be available to deliver energy by the guaranteed commercial operation date. PG&E states that

SunPower is experienced in project finance and will rely in part on existing financing partnerships to fund this new project.

Given the current credit crisis, new renewable energy projects face financing risk. In order to utilize the 30% federal investment tax credit (ITC), SunPower must partner with a tax equity provider. The tax equity market has shrunk as a result of the current recession and may negatively impact a renewable energy project developer's ability to use the ITC.³¹ We believe SunPower's proven track record will put it at an advantage in competing for financing, but this is clearly a potential source of risk.

Sponsor's creditworthiness

PG&E evaluated the company's profile and the credit-related information provided by High Plains Ranch as part of its bid. Based on those materials, PG&E determined that High Plains Ranch possesses the necessary financing, development, and operational skills to develop the project and meet the obligations of the PPA. Consistent with PG&E's 2007 RPS Solicitation protocol, PG&E will require performance assurance from High Plains Ranch in order to secure the project's development and performance obligations under the PPA.

Technology and Equipment Availability

High Plains Ranch will use monocrystalline silicon PV cells, mounted on systems that track the movement of the sun. Crystalline silicon PV cells are a proven technology in use for decades. SunPower's proprietary cells have demonstrated better efficiencies than conventional cells, and both the cells and SunPower's tracking systems have been deployed on a large scale in the U.S. and Europe. Nonetheless, High Plains Ranch is more than three times the size of the largest existing solar PV project in the world, a 60 MW project in Spain.³² Given the modular nature – and thus the scalability – of PV, the company's main challenge may simply be the unprecedented increase in manufacturing and installation capacity that will be required to meet the requirements of its ambitious PPA. In that regard, SunPower is increasing its manufacturing capacity, and provided

³¹ "Downturn to hurt energy projects," Financial Times, December 8, 2008, <http://www.ft.com/cms/s/0/49ad8896-c4c8-11dd-8124-000077b07658.html>

³² <http://www.pvresources.com/en/top50pv.php>

PG&E and the Commission with estimates of the manufacturing capacity it had achieved by the end of 2008. The company plans to manufacture the panels and tracking systems for High Plains Ranch at its facilities in Richmond and San Jose, California.

Site Control/Permitting

High Plains Ranch has in place options to purchase private land sufficient for the full 210 MW project. High Plains Ranch planned to submit its conditional use permit application to San Luis Obispo County in January 2009³³; the permitting process is typically 12-18 months. The county will also be evaluating the OptiSolar application for a 550 MW project in the Carrizo Plain. The CEC is currently evaluating Ausra's application for a 177 MW solar thermal project in the same area. Thus, San Luis Obispo County will have to consider the cumulative impacts of High Plains Ranch and these other projects.

Resource Quality

Carrizo Plain is a suitable location for a solar PV project, since the area has good solar insolation³⁴ and favorable topography. The area in which the project is being developed has high solar radiation for energy production.

Investment Tax Credit (ITC)

High Plains Ranch is eligible for the 30% ITC. On October 3, 2008, President Bush signed the Emergency Economic Stabilization Act of 2008, House Resolution (H.R.) 1424 (2008), which extended the investment tax credit (ITC) for eight years.³⁵

Project Viability

Based on the information above, we find that PG&E has made a sufficient showing that High Plains Ranch is a viable project. We believe the project is

³³ PG&E response to Energy Division data request, January 9, 2009.

³⁴ The measure of solar energy per unit of surface area per unit of time.

³⁵ <http://thomas.loc.gov/cgi-bin/bdquery/z?d110:H.R.1424:http://thomas.loc.gov/cgi-bin/bdquery/z?d110:H.R.1424>: (Last visited October 6, 2008)

viable for the following reasons: SunPower has a proven PV technology and experience deploying that technology at the utility scale, High Plains Ranch has options to purchase sufficient land in an area with a good solar resource, and the project is expected to require only minimal transmission upgrades.

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

Deliveries from High Plains Ranch will contribute to PG&E's minimum quota requirement under D.07-05-028, described above.

Response to TURN's comments

TURN articulated one caveat to its support of this Commission approving PG&E's PPA with High Plains Ranch: TURN would like the Commission to ensure that PG&E has sufficient AMFs available to cover the above-MPR costs.

In addition, TURN expressed a strong preference for contractual provisions requiring or providing an incentive for in-state manufacturing. TURN recommends that the Commission evaluate the potential for contract modification to require in-state manufacturing. Lastly, TURN urges the Commission to evaluate future requests for price escalation rigorously and with great skepticism since, in TURN's view, all parties should have been well aware of the escalation of material and engineering costs .

In PG&E's response to TURN's comments, PG&E states that TURN's comments may be addressed through long-term RPS procurement policies, but approval of the SunPower PPA should be based on established Commission standards, and that the PPA should be approved as submitted.

As discussed above, PG&E may not have sufficient AMFs to meet the needs of its PPA with High Plains Ranch. We appreciate TURN's cost concerns; however, TURN no doubt understands that this is not grounds for automatic rejection of the contract. The Commission must weigh California's ambitious renewable energy goals against its obligation to ensure that power is provided at just and reasonable rates. For the reasons discussed above, the Commission finds this project to be a good balance of viable renewable energy and reasonable cost.

Regarding in-state manufacturing, SunPower already designs and manufactures panels and tracking systems in California, at its facilities in Richmond and San

Jose. The company has stated that it plans to manufacture the panels and tracking systems for High Plains Ranch at these facilities, and the Commission does not believe it necessary to include contractual provisions or incentives to this effect.

Lastly, the Commission has rigorous requirements for consideration of price amendments.³⁶ A Commission-approved project that requests a price amendment will be considered only if the request is filed with extensive documentation, such as balance of plant, cash flow models and detailed documentation (from manufacturer and/or developer) showing clearly the reason for the price increase. Additionally, any such project and its revised price will be compared to bids offered in response to the most recent RPS solicitation.

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 nor waived upon the stipulation of all parties in the proceeding.

The 30-day comment period for the draft of this resolution was neither waived nor reduced. Accordingly, this draft resolution was mailed to parties for comments, and will be placed on the Commission's agenda no earlier than 30 days from today.

PG&E filed timely confidential comments requesting non-substantive, clarifying changes to language in the draft resolution. No other party filed comments, and no party filed reply comments.

FINDINGS

1. PG&E filed Advice Letter (AL) 3318-E on August 14, 2008 requesting Commission review and approval of a renewable energy resource power purchase agreements (PPA) with High Plains Ranch LLC.

³⁶ See Resolutions E-4150 and E-4176.

2. The RPS Program requires each utility, including PG&E, to increase the amount of renewable energy in its portfolio to 20 percent by 2010, increasing by a minimum of one percent per year.
3. November 17, 2008, Governor Schwarzenegger issued Executive Order S-14-08, which sets a target for energy retailers to deliver 33 percent of electrical energy from renewable resources by 2020.
4. The PPA is consistent with PG&E's approved 2007 RPS procurement plan.
5. D.04-06-014 and D.07-11-025 set forth standard terms and conditions to be incorporated into each RPS PPA. Those terms were compiled and published by D.08-04-009.
6. The PPA includes the Commission adopted RPS Standard Terms and Conditions deemed "non-modifiable".
7. Any stranded costs that may arise from the PPA are subject to the provisions of D.08-09-012 that authorize recovery of stranded renewables procurement costs over the life of the contract.
8. D.06-05-039 requires participation of an independent evaluator (IE) in RPS solicitations.
9. The Commission requires each utility to establish a Procurement Review Group (PRG) to review the utilities' interim procurement needs and strategy, proposed procurement process, and selected contracts.
10. 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.
11. The payments made under this PPA between PG&E and High Plains Ranch LLC 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 Commission review of PG&E's administration of the PPA.
12. 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.

13. High Plains Ranch's Large Generator Interconnection Agreement (LGIA) will identify all of the transmission upgrades necessary to enable delivery of the generation from the project under the PPA. Therefore, PG&E should reimburse High Plains Ranch, through this PPA, for only those transmission upgrades identified by the LGIA.
14. In order for the Commission to be able to effectively weigh the relative cost and value of the PPA, the PPA must establish a maximum possible contract price. In the absence of such a contract price cap, it is impossible for the Commission to know the maximum potential cost exposure to ratepayers. Thus, it is reasonable to limit cost recovery for this contract only up to the contract price cap identified in Confidential Appendix C.
15. The PPA is reasonable and should be approved, subject to the conditions above.
16. Subject to the conditions above, the payments made under the PPA including all renewable procurement and administrative costs identified in Section 399.14(g) should be recovered in rates.
17. AL 3318-E should be approved effective today.

THEREFORE IT IS ORDERED:

1. AL 3318-E is approved with conditions. Payments made under the PPA including all renewable procurement and administrative costs identified in Section 399.14(g) shall be recovered in rates, subject to the conditions below:
 - a. PG&E is denied authority to reimburse High Plains Ranch, through this PPA, for the costs of any transmission upgrades not required under High Plains Ranch's Large Generator Interconnection Agreement.
 - b. Cost recovery for this PPA may not exceed the contract price cap identified in Confidential Appendix C.
2. This Resolution is effective today.

February 20, 2009

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 February 20, 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

Overview of 2004 – 2007 Solicitation Bids

[REDACTED]

Confidential Appendix B

Ranking of 2007 Bids

[REDACTED]

Confidential Appendix C

Contract Summary

[REDACTED]

Confidential Appendix D

Contract Price

[REDACTED]

Confidential Appendix E

Project Viability Matrix

[REDACTED]

Confidential Appendix F

Independent Evaluator Report

[REDACTED]