

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298



February 1, 2010

Advice Letter 3449-E

Brian K. Cherry
Vice President, Regulatory Relations
Pacific Gas and Electric Company
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177

**Subject: Contract for Procurement of Renewable Energy Resources
Resulting from PG&E's Power Purchase Agreement with
Solaren Corporation**

Dear Mr. Cherry:

Advice Letter 3449-E is effective November 20, 2009 per Resolution E-4286.

Sincerely,

A handwritten signature in blue ink that reads "Julie A. Fitch".

Julie A. Fitch, Director
Energy Division



April 10, 2009

Advice 3449-E

(Pacific Gas and Electric Company ID U39 E)

Public Utilities Commission of the State of California

**Subject: Contract for Procurement of Renewable Energy Resources
Resulting from PG&E's Power Purchase Agreement with Solaren
Corporation**

I. INTRODUCTION:

A. Purpose and Overview

Pacific Gas and Electric Company ("PG&E") seeks California Public Utilities Commission ("Commission" or "CPUC") approval of a power purchase agreement ("PPA") that PG&E has executed with Solaren Corporation ("Solaren"). PG&E submits the PPA for CPUC review and approval to establish PG&E's ability to recover the cost of payments made pursuant to the PPA through its Energy Resource Recovery Account ("ERRA").

The Commission's approval of the PPA will authorize PG&E to accept deliveries for up to 200 megawatts ("MW") of Renewables Portfolio Standard ("RPS")-eligible energy from a new space solar power project ("Project") with a ground receiving station in Fresno County, for a term of 15 years. If completed by 2016, the project would deliver an average of 850 gigawatt hours ("GWh") for the first year of the term, and 1,700 GWh per year over the remaining term of the PPA, which would contribute significantly toward PG&E's RPS goals after 2016.

Solaren is using an innovative space-based solar technology, which, if successful, would represent a break-through in the renewable power industry. While emerging technologies like space solar face considerable hurdles under a traditional viability analysis, PG&E believes that potential, significant benefits to its customers from a successful space solar installation outweigh the challenges associated with a new and unproven technology.

Although the Solaren PPA was initiated through bilateral negotiations, negotiations occurred during the pendency of the 2008 RPS Solicitation, and the results of the 2008 Solicitation provide a logical context for reviewing the reasonableness of the Solaren PPA. Consistent with the protocol used for review of RPS contracts resulting from the 2008 RPS Solicitations, PG&E has included Confidential Appendices A through H, which demonstrate the reasonableness of the PPA. As discussed below, PG&E requests confidential treatment of the information contained in these appendices.

PG&E requests that the Commission issue a resolution no later than October 29, 2009 approving the PPA and payments to be made by PG&E under the PPA, and containing the findings required by the definition of CPUC Approval adopted by D.07-11-025 and D.08-04-009.¹ If CPUC Approval is not obtained prior to that date, either party may terminate the contract, as further described in Confidential Appendix D.

B. Detailed Description of the Project

If successful, the Solaren project will provide baseload power from a space-based technology that collects solar energy as it travels in a geosynchronous orbit and converts the energy into radio frequency (“RF”) power for transmission to a receiving station located in Fresno County, CA. The RF power will then be converted to renewable electricity for delivery to PG&E and its customers.

The following table summarizes the substantive features of the PPA:

Owner / Developer	Solaren
Technology	Solar Space
Capacity (MW)	200
Capacity Factor	97%
Expected Generation (GWh/Year)	850 GWh in the first year of operation)

¹ As provided by D.07-11-025 and D.08-04-009, the Commission must approve the PPA and payments to be made thereunder, and find that the procurement will count toward PG&E’s RPS procurement obligations.

	1,700 GWh (all remaining years of operation)
Online Date (if existing, the contract delivery start date)	June 1, 2016
Contract Term (Years)	15
New or Existing Facility	New
Location (include in/out-of-state) and Control Area (e.g., CAISO, BPA)	Geosynchronous Orbit for the Satellite/ Fresno County, CA for the Ground Receiving Station
Price relative to MPR	Above the MPR

A copy of the PPA is provided in Confidential Appendix G and a contract analysis is provided in Confidential Appendix D.

II. THE PPA IS CONSISTENT WITH THE COMMISSION'S RPS-RELATED DECISIONS

A. Consistency with PG&E's Adopted RPS Plan and Solicitation

PG&E's 2008 renewable procurement plan ("2008 Plan") was conditionally approved in D.08-02-008 on February 14, 2008. As required by statute, the 2008 Plan included 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.²

The goal of PG&E's 2008 Plan was to procure approximately one to two percent of its retail sales volume, or between 800 GWh and 1,600 GWh per year. With expected RPS-eligible energy deliveries of approximately 850 to 1,700 GWh for a term of 15 years beginning June 1, 2016, the Solaren PPA meets the criteria for renewables procurement contained in the 2008 Plan. If the project is successful, the PPA would additionally contribute to PG&E's longer-term RPS goals.

² Pub. Util. Code § 399.14(a)(3).

The proposed PPA is also consistent with PG&E's approved RPS Plan because it was evaluated consistent with the review protocol in the 2008 RPS Solicitation. Additionally, the Solaren PPA is consistent with Commission guidelines regarding bilateral contracting. The Solaren PPA was negotiated as a bilateral contract as Solaren approached PG&E with the offer outside of the RPS Solicitation process. As a long-term RPS contract of over one month in duration, the proposed PPA is in compliance with the bilateral contract requirements outlined in D.06-10-019.³ Furthermore, D.03-06-071 allows a utility and a generator to enter into bilateral contracts outside of the competitive solicitation process, and Resolution E-4161, which approved a bilateral RPS contract entered into by PG&E, determined utilities' bilateral contracts can still be evaluated even though evaluation criteria for bilateral contracts are still being developed.⁴

B. Consistency with PG&E's Long Term Procurement Plan

PG&E's 2006 long-term procurement plan ("LTPP") stated that PG&E would aggressively pursue procurement of RPS-eligible renewable resources. In approving PG&E's 2006 LTPP, the Commission noted that development of renewable energy is "of great importance to the Governor, the State of California, and the Commission."⁵ The PPA is consistent with PG&E's 2006 LTPP and with Commission policy regarding renewable energy expressed in the decision approving PG&E's 2006 LTPP.

C. Consistency of Bid Evaluation Process with Least-Cost Best Fit Decision

The RPS statute requires PG&E to procure the "least cost, best fit" ("LCBF") eligible renewable resources.⁶ The LCBF decision directs the utilities to use certain criteria in their bid ranking.⁷ It offers guidance regarding the process by which the

³ D.06-10-019 at 29: "All RPS-obligated LSEs are also free to enter into bilateral contracts of any length with RPS-eligible generators, as long as the contracts are at least one month in duration, to enable the CEC to verify RPS procurement claims."

⁴ Resolution E-4161 at 5.

⁵ D.07-12-052 at 73.

⁶ Pub. Util. Code § 399.14(a)(2)(B).

⁷ D.04-07-029.

utility ranks bids in order to select or “shortlist” the bids with which it will commence negotiations. The renewables bid evaluation process focuses on four primary areas:

1. Determination of market value of bid,
2. Calculation of transmission adders and integration costs,
3. Evaluation of portfolio fit, and
4. Consideration of non-price factors.

The Project was generally compared with other RPS transactions received in the 2008 RPS Solicitation. PG&E compared the net market value of the Project with the net market values of offers received in the 2008 RPS Solicitation and of current bilateral opportunities. The general finding is that this opportunity is competitive and represents an acceptable LCBF renewable procurement opportunity. A more detailed discussion of PG&E’s evaluation of the PPA is provided in Confidential Appendix D.

1. **Market Valuation**

In a “mark-to-market analysis,” 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. This analysis includes evaluation of the bid price and indirect costs, such as transmission and integration costs. PG&E’s analysis of the market value of the PPA is addressed in Confidential Appendix D.

2. **Portfolio Fit**

Portfolio fit considers how well an offer’s features match PG&E’s portfolio needs. As part of the portfolio fit assessment, PG&E differentiates offers by the firmness of their energy delivery and by their energy delivery patterns. A higher portfolio fit measure is assigned to the energy that PG&E is sure to receive and fits the needs of the existing portfolio. The Project proposes deliveries by 2016, which, if successful, would contribute significantly toward PG&E’s RPS goals beyond 2010. This technology would offer baseload solar power, which is of value when integrating intermittent solar and wind generation. The Solaren PPA fits PG&E’s portfolio in a satisfactory manner. PG&E further addresses portfolio fit in Confidential Appendix D.

3. **Consistency with the Transmission Ranking Cost Decision**

Under the transmission ranking cost decision, the customer's potential cost of accepting energy deliveries from a project must be considered when determining the Project's value. PG&E determined the TRCR cluster at which the Project would interconnect to the transmission grid. Consistent with Commission decisions, PG&E assigned a transmission adder to the Project based on the potential transmission congestion, the associated proxy transmission network upgrades and the associated capital costs that may be needed to accommodate delivery at this cluster. Additional detail is provided in Confidential Appendix D.

4. **Consistent Application of TODs**

Time of Delivery ("TOD") factors are addressed in Confidential Appendix D.

5. **Qualitative Factors**

PG&E considered qualitative factors as required by D.04-07-029 and D.07-02-011 when evaluating the PPA, including benefits to low income or minority communities, environmental stewardship, local reliability, and resource diversity benefits. These are addressed in Confidential Appendix D.

D. PRG Participation and Feedback

PG&E informed its Procurement Review Group ("PRG") of the transaction on April 11, 2008 and September 19, 2008 and addressed several questions from the PRG at those meetings. PG&E further addresses PRG feedback in Confidential Appendix D.

The PRG for PG&E consists of: California Department of Water Resources ("DWR"), the Commission's Energy Division and Division of Ratepayer Advocates, Union of Concerned Scientists ("UCS"), the Utility Reform Network ("TURN"), the California Utility Employees ("CUE"), and Jan Reid, as a PG&E ratepayer.

E. RPS Goals

Senate Bill ("SB") 1078 established the California RPS Program, requiring an electrical corporation to increase its use of eligible renewable energy resources to 20 percent of total retail sales no later than December 31, 2017. The legislature

subsequently accelerated the RPS goal to reach 20 percent by the end of 2010. In addition, California is actively considering increasing its renewable goals beyond the current 20 percent renewable energy target. Governor Schwarzenegger's Executive Order issued in November 2008 describes a new target for California of 33 percent renewable energy by 2020. The California Legislature is actively considering legislation increasing the overall RPS target to 33 percent. Finally, the California Air Resource Board's Scoping Plan, adopted in December 2008, identifies an increase in the renewables target to 33 percent by 2020 as a key measure for reducing greenhouse gas emissions and meeting California's climate change goals. As discussed above, the PPA contributes to these RPS goals in the years beyond 2010.

F. Consistency with Adopted Standard Terms and Conditions

The Commission set forth standard terms and conditions to be incorporated into contracts for the purchase of electricity from eligible renewable energy resources in D.04-06-014, D.07-02-011 as modified by D.07-05-057, and D.07-11-025. These terms and conditions were compiled and published by D.08-04-009. Additionally, the non-modifiable term related to Green Attributes was finalized in D.08-08-028. The non-modifiable terms in the PPA conform exactly to the non-modifiable terms set forth in Attachment A of D.07-11-025 and Appendix A of D.08-04-009, as modified by D.08-08-028.

Modifications have been made to the terms in the PPA designated as modifiable in D.07-11-025 and D.08-04-009 based upon mutual agreement reached during negotiations. A comparison of the modifiable terms in the PPA against the modifiable terms in PG&E's 2008 RPS Baseload PPA form in the Solicitation Protocol dated February 29, 2008 is provided in Confidential Appendix H.

Each provision in the PPA is essential to the negotiated agreement between the parties, and the Commission should therefore not modify any of the provisions. The Commission should consider the PPA as a whole, in terms of its ultimate effect on utility customers. PG&E submits that the PPA protects the interests of its customers while achieving the Commission's goal of increasing procurement from eligible renewable resources.

G. Consistency with Minimum Quantity Decision

In D.07-05-028, the Commission determined that in order to count energy deliveries from short-term contracts with existing facilities toward RPS goals, RPS-obligated load-serving entities must contract for deliveries equal to at least 0.25 percent of

their prior year's retail sales through long-term contracts or through short-term contracts with new facilities.

The PPA is a long-term contract and thus counts toward PG&E's procurement obligation under D.07-05-028. PG&E expects that in 2009, it will be in compliance with the minimum quantity requirement in D.07-05-028.

H. Interim Emissions Performance Standard

In D.07-01-039, the Commission adopted an Emissions Performance Standard ("EPS") that applies to contracts for a term of five or more years for baseload generation with an annualized plant capacity factor of at least 60 percent. The PPA is a covered procurement subject to the EPS because it is a new contract commitment with a baseload generating facility. However, because this facility would not generate power through the combustion of fossil fuels and would not produce any greenhouse gas as a direct byproduct of its conversion of solar energy into grid-ready renewable electricity, the facility meets the EPS.

Notification of compliance with D.07-01-039 is provided through this Advice Letter, which has been served on the service list in the RPS rulemaking, R.08-08-009.

I. MPR and AMFs

The actual price under the PPA is confidential, market sensitive information. The price of the PPA is above the applicable 2008 market price referent ("MPR"). As the PPA was a result of bilateral negotiations, the PPA is not eligible for above-market funds ("AMFs").

III. PROJECT DEVELOPMENT STATUS

A. Site Control

Pursuant to the terms of the Solaren PPA, the site location for the receiving station is located in Fresno County, CA. Additionally, the Project requires an orbital slot position for the geosynchronous satellites that is still to be identified. Site control is further addressed in Confidential Appendix D.

B. Resource and/or Availability of Fuel

The Project's only requirement for fuel is sunlight in space. As sunlight is continuously available in space, the Project does not require a supplemental gas powered electrical generation facility as backup. The Project will experience only brief blockages of sunlight on its solar arrays by the earth during the spring and fall equinox periods. The spring and fall equinox periods last for two to three weeks and the blockage duration ranges from a few minutes to an hour around local midnight. These short periods of reduced electricity generating capacity are predictable and have already been accounted for in Solaren's electricity delivery profiles. In addition, Solaren's receiving station has only a nominal requirement for water usage.

C. Transmission

The point of delivery will be to the California Independent System Operator ("CAISO") grid at the Helm or Los Banos substation. Further discussions regarding Transmission are included in Confidential Appendix D.

D. Technology Type and Level of Technology Maturity

A conceptual discussion of Space Solar technology and level of maturity is provided below. A discussion of Solaren's specific technology and level of maturity is summarized below and provided in more detail in Confidential Appendix D.

Concept

Space Solar Power ("SSP") uses satellites in geosynchronous orbit to collect solar energy, which is then transmitted to the ground for conversion into electricity. More specifically, SSP satellites use solar cells to convert the sun's energy to electricity in space. A high-efficiency generator device, such as a magnetron or solid state power amplifier ("SSPA"), then converts electricity into RF energy. The SSP satellite then transmits the RF energy from the satellite's antenna to a receiver on the ground. The receiver directly converts the RF power to electricity, and uses the local power grid for transmission to the utility customer. This general energy conversion process is the same process that has been used on communications satellites for over 45 years. The engineering challenge of building a Space Solar Power Plant is not the energy conversion process itself, but the need to engineer and build MW-class SSP satellites, which are much larger than current kW-class communications satellites.

Concept Research

As a concept, SSP is clearly an emerging technology, although a number of experts believe it holds great promise as a potential new source of energy. The concept has been researched in the United States over the past 40 years. The most recent report was the 2007 Department of Defense (“DOD”) National Security Space Office (“NSSO”) study on Space Solar Power.⁸ Previously, in the 1990s and early 2000s, the National Aeronautics and Space Administration (“NASA”) supported several studies and assessments^{9,10} which built on the work of the first major study on the topic, the 1978 Department of Energy “Solar Power Satellite Reference System Report” study.¹¹

The 2007 NSSO report “Space Based Solar Power as an Opportunity for Strategic Security” is a review of the Space Solar Concept. This report was based on feedback from over 170 participants and evaluated Space Solar from a broad conceptual perspective. While the report did include discussion about utility scale development, it primarily focused on DOD energy goals such as battlefield and humanitarian needs.

In the 1990’s and early 2000s there was a series of “fresh look” studies conducted by NASA. One comprehensive report was the National Research Council’s (NRC) “Laying the Foundation for Space Solar Power.”¹² The NRC provided an independent assessment of the viability of NASA’s Space Solar Power Concepts, SSP Research and Technology, and SSP System Demonstrations.

⁸Space Based Solar Power as an Opportunity for Strategic Security, National Security Space Office, October 2007 (available at <http://www.acq.osd.mil/nssolar/SBSPInterimAssesment0.1.pdf>) (last visited April 8, 2009).

⁹ J. C. Mankins, “A Fresh Look at Space Solar Power: New Architectures, Concepts and Technologies,” *Acta Astronautica*, 41, 4-10, 1997, pp. 347-359

¹⁰ Congressional Testimony for NASA’S Study of Space Solar Power, 1997 U.S. House of Representatives, Committee on Science (available at http://commdocs.house.gov/committees/science/hsy297160.000/hsy297160_0.HTM) (last visited April 8, 2009).

¹¹ U.S. Department of Energy and NASA, DOE/ER-0023, October 1978 (available at <http://www.nss.org/settlement/ssp/library/1978DOESPS-ReferenceSystemReport.pdf>) (last visited April 8, 2009).

¹² Committee for the Assessment of NASA’s Space Solar Power Investment Strategy, Aeronautics and Space Engineering Board, National Research Council (2001) (available at <http://www.nss.org/settlement/ssp/library/2001-LayingTheFoundationForSpaceSolarPower.pdf>) (last visited April 8, 2009).

Concept Demonstration

The concept of wireless transmission of power has been validated in both the US and Japan through numerous engineering demonstrations. A 1974 NASA Jet Propulsion Laboratory (“JPL”) transmitted 34 kW of energy 1.5 kilometers across the NASA Goldstone antenna range and achieved greater than 80% conversion efficiency of energy to electricity. According to Solaren, in 2008, Dr. Neville I. Marzwell from NASA JPL conducted a Discovery Channel wireless power transmission demonstration using ground solar cells to generate electricity to drive a SSPA array and transmit RF energy a distance of 92 miles (148 km) between two Hawaiian Islands. Dr. Marzwell’s demonstration achieved greater than 90% conversion efficiency of RF energy to electricity.

Space solar technology is based on components that are in use today or being developed for use with satellite communications, radar systems, and other applications. Consistent with its designation as an emerging technology, these components must be engineered, tested, manufactured and integrated into large-scale SSP satellite and ground system architectures.

Solaren Project

Solaren’s patented SSP Plant design employs the SSP concept described above to deliver renewable electricity to PG&E. The viability of the Project is further evaluated in Confidential Appendix E, “Project Viability.”

E. Permitting

The below table summarizes key, non-confidential permits and leases PG&E is currently aware of that may be necessary for the construction and operation of the generation facility. Permitting and leases are further addressed in Confidential Appendix D. Additionally, PG&E has identified the following public entities that may have or assert jurisdiction over the project: the United Nations, the National Aeronautics and Space Administration; the Federal Aviation Administration; the National Security Space Office; the U.S. Department of Defense; the U.S. Department of Commerce; the U.S. Fish and Wildlife Service; the U.S. Department of Energy; the U.S. Department of State; the U.S. Environmental Protection Agency; the U.S. Army Corps of Engineers; the San Joaquin Valley Unified Air Pollution Control District; the California Department of Fish and Game; and the Regional Water Quality Control Board. The involvement of these additional agencies is uncertain due to the first-of-its-kind nature of this project and is dependent on the final project design and site-specific conditions.

Permit and Lease Table		
Name of Permit or lease required	Public or Private?	Agency
Transmit Frequency License	Public	FCC
Commercial Satellite Launch Permits	Public	FAA
Space Solar Power (SSP) Ground Receiving Station Siting Approval and Renewable Energy Standard Certification	Public	CEC
Ground Receiving Station Land Use Entitlement	Public	Fresno County Planning Commission
Potential Lease for Ground Receiving Station	Public	N/A
Interconnection Application, Facility Impact Study and the Execution of a Participating Generator Agreement	Public	CAISO
*FCC = Federal Communications Commission FAA = Federal Aviation Administration		

F. Developer Experience

Solaren was founded in 2001 to develop, engineer, test, construct, and operate space solar generating stations. The Project in this PPA would be Solaren's first and would likely be the world's first spaced-based solar power project. Solaren has informed PG&E that its team is comprised of experienced satellite engineers and space scientists with 20 to 45 years of experience in the leading edge space industry and come from various aerospace organizations that include the US Air Force, Hughes Aircraft Company, Boeing, and Lockheed Martin.

G. Financing Plan

Solaren Corporation is a privately held company. Further details are included in Confidential Appendix D.

H. Production Tax Credit/Investment Tax Credit

Solaren has informed PG&E that the Project is eligible for Investment Tax Credits (ITCs). Further details are addressed in Confidential Appendix D.

VII. CONTINGENCIES AND PROJECT MILESTONES

The PPA includes certain performance criteria and milestones that PG&E includes in its form RPS PPA contracts. These and other contingencies and milestones are more fully addressed in Confidential Appendix D.

IX. REGULATORY PROCESS

A. Requested Effective Date

PG&E requests that the Commission issue a resolution approving this advice filing no later than October 29, 2009.

B. Earmarking

At this point, PG&E does not propose to earmark deliveries from this contract.

C. RPS-Eligibility Certification

The PPA includes the non-modifiable representation and warranty that during the delivery period, the Project will constitute an eligible renewable energy resource certified by the California Energy Commission (“CEC”).

D. Request for Confidential Treatment

In support of this Advice Letter, PG&E has provided the following confidential information, including the PPA and other information that more specifically describes the rights and obligations of the parties. This information is being submitted in the manner directed by D.08-04-023 and the August 22, 2006 Administrative Law Judge’s Ruling Clarifying Interim Procedures for Complying with D.06-06-066 to demonstrate the confidentiality of the material and to invoke the protection of confidential utility information provided under either the terms of the IOU Matrix, Appendix 1 of D.06-06-066 and Appendix C of D.08-04-023, or General Order 66-C. A separate Declaration Seeking Confidential Treatment is being filed concurrently with this Advice Letter.

Confidential Attachments:**Appendix A – Overview of 2004 – 2008 Solicitation Bids****Appendix B – 2008 Bid Evaluations****Appendix C – Intentionally Omitted****Appendix D – Contract Terms and Conditions Explained****Appendix E – Project Viability****Appendix F – Project’s Contribution Toward RPS Goals****Appendix G – Power Purchase Agreement****Appendix H – Standard Terms and Conditions Comparison – Modifiables****X. REQUEST FOR COMMISSION APPROVAL**

The continued effectiveness of the PPA is conditioned on the occurrence of “CPUC Approval,” as that term is defined in the PPA.

Therefore, PG&E requests that the Commission issue a resolution no later than **October 29, 2009** that:

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 2008 RPS procurement plan.
 - b. The terms of the PPA, including the price of delivered energy, are reasonable.

5. Adopts the following finding of fact and conclusion of law in support of cost recovery for the PPA:
 - a. The utility's costs under the PPA shall be recovered through PG&E's Energy Resource Recovery Account.
 - b. Any stranded costs that may arise from the PPA are subject to the provisions of D.04-12-048 that authorize recovery of stranded renewables procurement costs over the life of the contract. The implementation of the D.04-12-048 stranded cost recovery mechanism is addressed in D.08-09-012.

6. Adopts the following findings with respect to resource compliance with the Emissions Performance Standard ("EPS") adopted in R.06-04-009:
 - a. The PPA is a covered procurement subject to the EPS because it is a new contract commitment with a baseload generating facility. However, because this facility would not generate power through the combustion of fossil fuels and would not produce any greenhouse gas as a direct byproduct of its conversion of solar energy into grid-ready renewable electricity, the facility meets the EPS.

Protests:

Anyone wishing to protest this filing may do so by sending a letter by **April 30, 2009**, which is **20** days from the date of this filing. The protest must state the grounds upon which it is based, including such items as financial and service impact, and should be submitted expeditiously. Protests should be mailed to:

CPUC Energy Division
Attention: Tariff Unit, 4th Floor
505 Van Ness Avenue
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: mas@cpuc.ca.gov and jnj@cpuc.ca.gov

Copies should also be mailed to the attention of the Director, Energy Division, Room 4005 and Honesto Gatchalian, Energy Division, at the address shown above.

The protest also should be sent via U.S. mail (and by facsimile and electronically, if possible) to PG&E at the address shown on the following page on the same date it is mailed or delivered to the Commission.

Pacific Gas and Electric Company
Attention: Brian Cherry
Vice President, Regulatory Relations
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-7226
E-Mail: PGETariffs@pge.com

Effective Date:

PG&E requests that the Commission issue a resolution approving this advice filing no later October 29, 2009.

Notice:

In accordance with General Order 96-B, Section IV, a copy of this Advice Letter excluding the confidential appendices is being sent electronically and via U.S. mail to parties shown on the attached list and the service lists for R.08-08-009, R.06-02-012, and R.08-02-007. Non-market participants who are members of PG&E's Procurement Review Group and have signed appropriate Non-Disclosure Certificates will also receive the Advice Letter and accompanying confidential attachments by overnight mail. Address changes should be directed to Rose De La Torre (415) 973-4716. Advice letter filings can also be accessed electronically at:

<http://www.pge.com/tariffs>



Brian K. Cherry
Vice President - Regulatory Relations

cc: Service List for R.08-08-009
Service List for R.06-02-012
Service List for R.08-02-007
Paul Douglas - Energy Division
Sean Simon – Energy Division

Attachments

Limited Access to Confidential Material:

The portions of this Advice Letter marked Confidential Protected Material are submitted under the confidentiality protections of Sections 583 and 454.5(g) of the Public Utilities Code and General Order 66-C. This material is protected from public disclosure because it consists of, among other items, the contract itself, price information, and analysis of the proposed RPS contract, which are protected pursuant to D.06-06-066 and D.08-04-023. A separate Declaration Seeking Confidential Treatment regarding the confidential information is filed concurrently herewith.

Confidential Attachments:

Appendix A – Overview of 2004 – 2008 Solicitation Bids

Appendix B – 2008 Bid Evaluations

Appendix C – Independent Evaluator Report

Appendix D – Contract Terms and Conditions Explained

Appendix E – Project Viability

Appendix F – Project’s Contribution Toward RPS Goals

Appendix G – Power Purchase Agreement

Appendix H – Standard Terms and Conditions Comparison – Modifiables

CALIFORNIA PUBLIC UTILITIES COMMISSION

ADVICE LETTER FILING SUMMARY ENERGY UTILITY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No. **Pacific Gas and Electric Company (ID U39 M)**

Utility type:

ELC GAS
 PLC HEAT WATER

Contact Person: David Poster

Phone #: (415) 973-1082

E-mail: DXPU@pge.com

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas
 PLC = Pipeline HEAT = Heat WATER = Water

(Date Filed/ Received Stamp by CPUC)

Advice Letter (AL) #: **3449-E**

Tier: **[3]**

Subject of AL: Contract for Procurement of Renewable Energy Resources Resulting from PG&E's Power Purchase Agreement with Solaren Corporation

Keywords (choose from CPUC listing): RPS

AL filing type: Monthly Quarterly Annual One-Time Other _____

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

Summarize differences between the AL and the prior withdrawn or rejected AL:

Is AL requesting confidential treatment? If so, what information is the utility seeking confidential treatment for: Yes. See the advice letter, which identifies all of the confidential information.

Confidential information will be made available to those who have executed a nondisclosure agreement: All members of PG&E's Procurement Review Group who have signed nondisclosure agreements will receive the confidential information.

Name(s) and contact information of the person(s) who will provide the nondisclosure agreement and access to the confidential information:
Jonathan D. Forrester 415-973-4473

Resolution Required? Yes No

Requested effective date: No later than October 29, 2009

No. of tariff sheets: N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Protests, dispositions, and all other correspondence regarding this AL are due no later than 20 days after the date of this filing, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division
Tariff Files, Room 4005
DMS Branch
505 Van Ness Ave., San Francisco, CA 94102
jnj@cpuc.ca.gov and mas@cpuc.ca.gov

Pacific Gas and Electric Company
Attn: Brian K. Cherry, Vice President, Regulatory Relations
77 Beale Street, Mail Code B10C
P.O. Box 770000
San Francisco, CA 94177
E-mail: PGETariffs@pge.com

**DECLARATION OF JONATHAN D. FORRESTER
SEEKING CONFIDENTIAL TREATMENT
FOR CERTAIN DATA AND INFORMATION
CONTAINED IN ADVICE LETTER 3449-E
(PACIFIC GAS AND ELECTRIC COMPANY - U 39 E)**

I, Jonathan D. Forrester, declare:

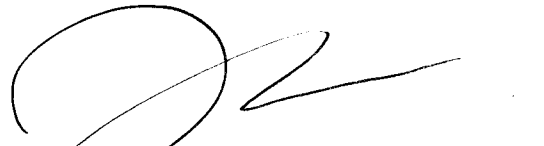
1. I am presently employed by Pacific Gas and Electric Company (“PG&E”), and have been an employee since 2006. My current title is Principal within PG&E’s Energy Procurement Department. In this position, my responsibilities include negotiating PG&E’s Renewables Portfolio Standard Program (“RPS”) Power Purchase Agreements. In carrying out these responsibilities, I have acquired knowledge of PG&E’s contracts with numerous counterparties. I have also gained knowledge of the operations of such sellers in general and, based on my experience in dealing with facility and contract owners, I am familiar with the types of data and information about their contracts and operations that such owners would consider confidential and proprietary.

2. Based on my knowledge and experience, and in accordance with Decision (“D.”) 08-04-023 and the August 22, 2006 “Administrative Law Judge’s Ruling Clarifying Interim Procedures for Complying with Decision 06-06-066,” I make this declaration seeking confidential treatment of “Appendices A, B, D, E, F, G and H to Advice Letter 3449 –E” submitted on April 10, 2009. By this Advice Letter, PG&E is seeking this Commission’s approval of a PPA that PG&E has executed with Solaren Corporation.

3. Attached to this declaration is a matrix identifying the data and information for which PG&E is seeking confidential treatment. The matrix specifies that the material PG&E is seeking to protect constitutes the particular type of data and information listed in Appendix 1 of D.06-06-066 and Appendix C of D.08-04-023 (the “IOU Matrix”), or constitutes information

that should be protected under Public Utilities Code § 583 and General Order 66-C. The matrix also specifies the category or categories in the IOU Matrix to which the data and information corresponds, and why confidential protection is justified. Finally, the matrix specifies that: (1) PG&E is complying with the limitations specified in the IOU Matrix for that type of data or information; (2) the information is not already public; and (3) the data cannot be aggregated, redacted, summarized or otherwise protected in a way that allows partial disclosure. By this reference, I am incorporating into this declaration all of the explanatory text in the attached matrix that is pertinent to this filing.

I declare under penalty of perjury, under the laws of the State of California that, to the best of my knowledge, the foregoing is true and correct. Executed on April 10, 2009 at San Francisco, California.



Jonathan D. Forrester

PACIFIC GAS AND ELECTRIC COMPANY Advice Letter 3449-E April 10, 2009		IDENTIFICATION OF CONFIDENTIAL INFORMATION PER DECISION 06-06-066 AND DECISION 08-04-023					Length of Time
Redaction Reference	1) The material submitted constitutes a particular type of data listed in the Matrix, appended as Appendix 1 to D.06-06-066 and Appendix C to D.08-04-023 (Y/N)	2) Which category or categories in the Matrix the data correspond to:	3) That it is complying with the limitations on confidentiality specified in the Matrix for that type of data (Y/N)	4) That the information is not already public (Y/N)	5) The data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure (Y/N)	PG&E's Justification for Confidential Treatment	
1 Document: Advice Letter 3449-E	Y	Item VIII (A) Bid information and B) Specific quantitative analysis involved in scoring and evaluation of participating bids.	Y	Y	Y	This Appendix contains bid information and bid evaluations from the 2004, 2005, 2006, 2007 and 2008 solicitations. This information would provide market sensitive information to competitors and is therefore considered confidential. Furthermore, contracts from the 2005, 2006, 2007, and 2008 solicitations are still under negotiation, further substantiating why releasing this information would be damaging to the negotiation process.	
2 Appendix A	Y	Item VIII (A) Bid information and B) Specific quantitative analysis involved in scoring and evaluation of participating bids.	Y	Y	Y	For information covered under Item VIII (A), remain confidential until after final contracts submitted to CPUC for approval For information covered under Item VIII (B), remain confidential for three years after winning bidders selected	
3 Appendix B	Y	Item VIII (A) Bid information and B) Specific quantitative analysis involved in scoring and evaluation of participating bids.	Y	Y	Y	For information covered under Item VIII (A), remain confidential until after final contracts submitted to CPUC for approval For information covered under Item VIII (B), remain confidential for three years after winning bidders selected	
4 Appendix D	Y	Item VII (G) Renewable Resource Contracts under RPS program - Contracts without SEPs, Item VII (un-numbered category following VII (G)) Score sheets, analyses, evaluations of proposed RPS projects. General Order 66-C.	Y	Y	Y	For information covered under Item VII (G) and Item VII (un-numbered category following VII (G)), remain confidential for three years For information covered by General Order 66-C, remain confidential	

Redaction Reference	1) The material submitted constitutes a particular type of data listed in the Matrix, appended as Appendix 1 to D.06-06-066 and Appendix C to D.08-04-023 (Y/N)	2) Which category or categories in the Matrix the data correspond to:	3) That it is complying with the limitations on confidentiality specified in the Matrix for that type of data (Y/N)	4) That the information is not already public (Y/N)	5) The data cannot be aggregated, redacted, summarized, masked or otherwise protected in a way that allows partial disclosure (Y/N)	PG&E's Justification for Confidential Treatment	Length of Time
5 Appendix E	Y	Item VII (un-numbered category following VII G) Score sheets, analyses, evaluations of proposed RPS projects.	Y	Y	Y	This Appendix contains information concerning and analyses and evaluations of project viability. If made public, this information could harm the counterparty and adversely affect project viability.	Remain confidential for three years
6 Appendix F	Y	Item VII (un-numbered category following VII G) Score sheets, analyses, evaluations of proposed RPS projects. Item VI B) Utility Bundled Net Open Position for Energy (MWh).	Y	Y	Y	This Appendix contains information that, if disclosed, would provide valuable market sensitive information to competitors and allow them to see PG&E's remaining RPS net open energy position. Since negotiations are still in progress with bidders from the 2005, 2006, 2007, and 2008 solicitations, this information should remain confidential for three years.	Remain confidential for three years
7 Appendix G	Y	Item VII G) Renewable Resource Contracts under RPS program - Contracts without SEPs.	Y	Y	Y	This Appendix contains the PPA. Disclosure of the PPA would provide valuable market sensitive information to competitors. Since negotiations are still in progress with bidders from the 2005, 2006, 2007 and 2008 solicitations, this information should remain confidential for three years. Release of this information would be damaging to negotiations. Furthermore, the counterparty to the PPA has an expectation that the terms of the PPA will remain confidential pursuant to confidentiality provisions in the PPA. I am informed and believe that General Order 66-C also provides a basis for confidential treatment. General Order 66-C includes in its category of records not open to public inspection "Information obtained in confidence from other than a business regulated by this Commission where the disclosure would be against the public interest." (Paragraph 2.8). It is in the public interest to treat such information as confidential because if such information were made public, it could have a damaging effect on current and future negotiations with other offers.	Remain confidential for three years
8 Appendix H	Y	Item VII G) Renewable Resource Contracts under RPS program - Contracts without SEPs.	Y	Y	Y	This Appendix contains certain terms of the PPA. Disclosure of certain terms of the PPA would provide valuable market sensitive information to competitors. Since negotiations are still in progress with bidders from the 2005, 2006, 2007 and 2008 solicitations, this information should remain confidential for three years. Release of this information would be damaging to negotiations. Furthermore, the counterparty to the PPA has an expectation that the terms of the PPA will remain confidential pursuant to confidentiality provisions in the PPA. I am informed and believe that General Order 66-C also provides a basis for confidential treatment. General Order 66-C includes in its category of records not open to public inspection "Information obtained in confidence from other than a business regulated by this Commission where the disclosure would be against the public interest." (Paragraph 2.8). It is in the public interest to treat such information as confidential because if such information were made public, it could have a damaging effect on current and future negotiations with other offers.	Remain confidential for three years

**PG&E Gas and Electric
Advice Filing List
General Order 96-B, Section IV**

Aglet	Department of the Army	Northern California Power Association
Agnews Developmental Center	Dept of General Services	Occidental Energy Marketing, Inc.
Alcantar & Kahl	Division of Business Advisory Services	OnGrid Solar
Ancillary Services Coalition	Douglas & Liddell	PPL EnergyPlus, LLC
Anderson & Poole	Douglass & Liddell	Pinnacle CNG Company
Arizona Public Service Company	Downey & Brand	Praxair
BART	Duke Energy	R. W. Beck & Associates
BP Energy Company	Duncan, Virgil E.	RCS, Inc.
Barkovich & Yap, Inc.	Dutcher, John	RMC Lonestar
Bartle Wells Associates	Ellison Schneider & Harris LLP	Recon Research
Blue Ridge Gas	Energy Management Services, LLC	SCD Energy Solutions
Braun & Associates	FPL Energy Project Management, Inc.	SCE
C & H Sugar Co.	Foster Farms	SESCO
CA Bldg Industry Association	Foster, Wheeler, Martinez	SMUD
CAISO	Franciscan Mobilehome	SPURR
CLECA Law Office	G. A. Krause & Assoc.	Santa Fe Jets
CSC Energy Services	GLJ Publications	Seattle City Light
	Goodin, MacBride, Squeri, Schlotz & Ritchie	Sempra Utilities
California Cotton Ginners & Growers Assn	Green Power Institute	Sequoia Union HS Dist
California Energy Commission	Hanna & Morton	Sierra Pacific Power Company
California League of Food Processors	Heeg, Peggy A.	Silicon Valley Power
California Public Utilities Commission	Hitachi	Smurfit Stone Container Corp
Calpine	Hogan Manufacturing, Inc.	Southern California Edison Company
Cameron McKenna	Imperial Irrigation District	St. Paul Assoc.
Cardinal Cogen	Innercite	Sunshine Design
Casner, Steve	International Power Technology	Sutherland, Asbill & Brennan
Cerox	Intestate Gas Services, Inc.	TFS Energy
Chamberlain, Eric	J. R. Wood, Inc.	Tabors Caramanis & Associates
Chevron Company	JTM, Inc.	Tecogen, Inc.
Chris, King	Los Angeles Dept of Water & Power	Tiger Natural Gas, Inc.
City of Glendale	Luce, Forward, Hamilton & Scripps LLP	Tioga Energy
City of Palo Alto	MBMC, Inc.	TransCanada
City of San Jose	MRW & Associates	Turlock Irrigation District
Clean Energy Fuels	Manatt Phelps Phillips	U S Borax, Inc.
Coast Economic Consulting	Matthew V. Brady & Associates	United Cogen
Commerce Energy	McKenzie & Associates	Utility Cost Management
Commercial Energy	Meek, Daniel W.	Utility Resource Network
Constellation	Merced Irrigation District	Utility Specialists
Constellation New Energy	Mirant	Vandenberg Air Force
Consumer Federation of California	Modesto Irrigation District	Verizon
Crossborder Energy	Morgan Stanley	Wellhead Electric Company
Davis Wright Tremaine LLP	Morrison & Foerster	Western Manufactured Housing Communities Association (WMA)
		White & Case
Day Carter Murphy	New United Motor Mfg., Inc.	eMeter Corporation
Defense Energy Support Center	Norris & Wong Associates	
Department of Water Resources	North Coast SolarResources	