

Decision 11-12-013 December 1, 2011

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company (U39E) for Approval of Fixed Energy Price Amendments With Existing Renewable Qualifying Facilities and Associated Cost Recovery.

Application 11-08-005
(Filed August 3, 2011)

Decision On Pacific Gas and Electric Company Request for Approval of Fixed Energy Price Amendments With Existing Renewable Qualifying Facilities and Associated Cost Recovery

1. Summary

This decision approves Pacific Gas and Electric Company's request to enter into Fixed Price Energy Amendments with 48 existing renewable Qualifying Facilities, and provides for associated cost recovery. The pro forma Amendment is shown in Attachment A. The counterparties are listed in Attachment B.

2. Background

After the passage of the Public Utilities Regulatory Policy Act of 1978 (PURPA), California integrated a large fleet of non-utility owned generators into its portfolio. Facilities that qualified under this program, known as Qualifying Facilities (QFs) typically fell into two types of resources:

1) cogeneration/Combined Heat and Power (CHP) and 2) small renewable facilities. In fact, much of the state's initial renewable procurement occurred through the QF program. QFs are paid short run avoided cost (SRAC), which is

determined by this Commission. By statute, SRAC is tied to the price of natural gas; while this can be an appropriate pricing mechanism for natural gas fired QFs, it is not always the best pricing mechanism for non-natural gas based projects. Existing renewable QFs delivering under the terms of a standard offer power purchase agreement (PPA) from the 1980's are sometimes referred to as "Legacy QFs." Many of Pacific Gas and Electric Company's (PG&E's) Legacy QFs are paid a fixed energy price under the terms of a settlement between PG&E and the Independent Energy Producers (IEP) that was approved in Decision (D.) 06-07-032, which approved 121 identical contract amendments. With one exception, those amendments expired in August of 2011, whereupon, under the terms of the settlement, the Legacy QFs energy price reverted to variable short run avoided cost (variable SRAC).

Variable SRAC is the product of a heat rate multiplied by the price of natural gas and also includes variable operation and maintenance costs. Variable SRAC is tied to multiple publicly available indexes, and thus the price itself is updated monthly. PG&E contends that while this pricing strategy makes sense for facilities that have variable inputs, some renewable QFs have at various times desired to avoid the price fluctuations inherent in the fossil-fuel based variable SRAC. The Commission has agreed with this sentiment on multiple occasions, including the approval of D.06-07-032.

The current variable SRAC methodology was approved in December 2010. D.10-12-035 approved the Qualifying Facility and Combined Heat and Power Program Settlement (QF/CHP Settlement) which provided, among other things, (in Section 11.1) that QFs with existing standard offers or other PPAs at the time of the effective date of the QF/CHP Settlement will be paid for energy based on the updated SRAC formula (unless the QF PPA specifies a different price).

Section 11.3 provides that the Seller under an existing QF PPA shall make a good faith effort to provide forecasting information to the investor-owned utility (IOU) so that the IOU can more accurately schedule QF generation in the California Independent System Operator (CAISO) markets.

PG&E filed the Application on August 3, 2011. There were no protests or responses.

3. PG&E's Request

PG&E notified by e-mail each of its Renewable QFs that it was eligible to execute a pro-forma amendment to existing QF contracts, known as the Fixed Energy Price Amendment (FEPA). QFs with no known valid e-mail address were mailed notification of the Amendment. On June 22, 2011, PG&E posted the pro-forma FEPA, instructions for completing and submitting a signed copy of the Amendment to PG&E, and frequently asked questions on its website. Interested QFs were given until July 18, 2011 to submit an executed copy of the Amendment to PG&E. All 48 Amendments signed by QFs and received by July 18, 2011 have been included in PG&E's Application for approval.

PG&E proposes to provide a pro-forma fixed energy price option to 48 renewable Legacy QFs. A copy of the pro-forma Amendment is included as Attachment A to this order. A list of the 48 QFs agreeing to the Amendment is included as Attachment B to this order. When compared to the universe of renewable legacy QFs, this number is smaller than the number approved in D.06-07-032; however, this makes a certain amount of sense since the number of existing "legacy" contracts will continue to get smaller over time as the expiration term dates are reached. The pro-forma FEPA is based on the amendment to existing QF PPAs (also known as the "Legacy PPA Amendment") that was approved as part of the QF/CHP Settlement in D.10-12-035. The

primary difference between the two amendments is that with the FEPA, the energy price is fixed. The FEPA eliminates the link between the market price of natural gas and the energy payment for Renewable QFs. By doing so, the renewable Legacy QFs achieve a certain amount of price stability. The fixed energy price is \$53.70/Megawatt-hour, per Article 2.1 of the pro-forma FEPA.

The fixed energy price is based on the otherwise applicable variable SRAC formula within the Legacy PPA Amendment, with adjustments specific to PG&E. The energy price is adjusted by the time-of-use (TOU) factors in the Legacy PPA Amendment. However, the TOU-differentiated energy price will not be recalculated each time TOU factors are re-published in PG&E's market price referent because then the price would not be "fixed." Ordinarily, application of a locational adder would result in an hourly changing price. In the pro-forma FEPA, the locational adder is set at zero.

The pro-forma FEPA requires the Seller (i.e., a QF agreeing to the contract amendment) to make good faith efforts to provide the forecasting and outage reporting as necessary to support PG&E's compliance with the California CAISO scheduling requirements. Forecasts generated by this process are non-binding on the Seller, so that the Seller's actual deliveries may deviate from its forecasts without incurring charges. Any charges that do occur are absorbed by PG&E's customers.

The pro-forma FEPA stipulates that the Seller will describe the disruption in specific terms that will enable PG&E to meet its obligations to report such events to the CAISO. As the QF's scheduling coordinator, PG&E remains responsible for all CAISO charges and is entitled to receive all CAISO revenues.

The QFs that execute the pro-forma FEPA are selecting a fixed SRAC price, instead of the variable SRAC price otherwise available under D.10-12-035. Thus,

by electing the Fixed Energy Price Amendment, the renewable legacy QFs waive their right under the QF/CHP Settlement to execute another version of the Legacy Amendment. However, PG&E contends that if the Legacy QFs do not receive final and non-appealable Commission approval to adopt the FEPA, the renewable legacy QFs retain the opportunity to execute one of the Legacy PPA Amendments.

D.10-12-035 stated that the Legacy PPA Amendments are only available for 180 days from the date of the QF/CHP Settlement effective date. However, at the time the application was filed, the QF/CHP settlement adopted in D.10-12-035 had not yet become effective. Thus executing this option had a certain amount of regulatory certainty available to the seller at the time of execution.

PG&E requests that the Commission approve the FEPAs by December 31, 2011 so that if approval is not granted, each Renewable QF will have sufficient time to exercise its option to execute a Legacy PPA Amendment under the QF/CHP Settlement. Given that D.11-10-016 clarified that the QF/CHP Settlement Effective Date would be when D.10-12-035 and D.11-10-016 both reach final non-appealable status, the timing is still consistent with this timeframe.

The FEPAs will remain in effect for the remaining term of the existing QF contracts, but for no more than five years. PG&E submitted 48 executed Amendments for approval through this Application. Instead of filing each Amendment, PG&E attached the pro-forma FEPA as Attachment A to its application and a list of the Renewable QFs that accepted the offer as Attachment B to its application. As noted above, these are also included as Attachments A and B to this order.

4. Discussion

The Commission's standards for reviewing QF contract amendments and modifications were discussed in D.99-02-085.¹ In general, the Commission examines a QF contract amendment or modification to determine if there are customer benefits that result from the amendment or modification.²

The Commission has previously found that it is reasonable to pay QFs fixed short-run avoided energy cost prices. After the energy crisis of 2001, the Commission adopted an SRAC price that was intended to encourage renewable QFs to resume deliveries. At that time, the Commission found that a proposal to replace the monthly variable SRAC with a five-year fixed energy price would provide greater incentives to renewable QFs. The fixed-price structure was also found to provide utility customers greater price certainty and less volatility over the five-year period³ and to provide the utility with greater predictability of revenue.⁴

The Commission approved a fixed energy price settlement for a second time in a proceeding to promote consistency in QF pricing. In that case, PG&E and IEP reached a settlement that included an SRAC price and either fixed or variable pricing. Fixed SRAC pricing for five years was offered to renewable energy generators. Non natural gas fueled QFs, including renewables, received a

¹ See D.99-02-085, 85 CPUC2d 158, 167 (1999).

² In earlier decisions, the Commission referred to "commensurate" benefits. In other decisions, the Commission referred to customer indifference. (Id. at 166-167.) (Describing Commission decisions and different descriptions of customer benefit standards).

³ D.01-06-015, Conclusion of Law 2.

⁴ Ibid, Finding of Fact 5.

five-year fixed energy price of \$64.50/ Megawatt-hours, with a 1% annual escalation. The total settlement package was found to be consistent with Commission standards for the approval of settlement agreements and was approved in D.06-07-032. In this application, PG&E proposes a similar fixed energy price offer limited to Renewable QFs for a five-year term, not to exceed the remaining term of the Seller's contract.

Payments under the FEPAs are based on the same energy price components as the Sellers' otherwise applicable SRAC. No other pricing term in Seller's existing PPA is affected. PG&E's customers should not experience any significant difference in procurement cost due to the Amendment, unless actual gas prices during the Amendment term deviate significantly from currently forecasted prices. However, we believe that the certainty that is gained from having renewables on a fixed energy price is more important than this potential risk on ratepayer cost exposure. We also note that if gas prices deviate significantly in the other direction that this fixed energy price could represent a significant savings. We find it reasonable that a renewable QF could operate more in the ratepayer interest by having its SRAC have fixed components.

Each of the 48 Amendments consists of a pro-forma FEPA that has been signed by the Renewable QF and PG&E without any changes to the form. The pro-forma FEPA provides the Renewable QFs with a fixed-price version of the SRAC that was adopted in D.10-12-035. In exchange, Sellers agree to provide PG&E with non-binding forecasts of their generation and notice of outages. Sellers also agree to maintain their status as Eligible Renewable Energy Resources and take other actions to enable PG&E to claim the benefits of their renewable generation under the Commission's Renewable Portfolio Standard program. We find that the PPAs are consistent with the QF/CHP Settlement.

The pro-forma FEPA incorporates the essential terms of the PPA Legacy Amendment. In particular, it requires the QF to agree to the voluntary generation forecast and outage reporting terms contained in the PPA Legacy Amendment⁵ and to comply with provisions applicable to eligible renewable energy resources.⁶ We are aware that terms concerning greenhouse gas emissions were omitted because renewable sellers do not emit regulated greenhouse gas emissions. Also, lengthy and complex dispute resolution provisions were not included.

We find that the Amendment is reasonable. The FEPA for each of the 48 QFs offers generally the same terms and energy price as the Legacy PPA Amendment but at pricing that is better aligned with the operations of renewable QFs. The price is based on an SRAC that was approved by D.10-12-035. The Commission has twice authorized a five-year fixed energy price, in D.01-06-015 and D.06-07-032. The Amendment will provide the Renewable QFs with greater revenue certainty and will therefore encourage them to continue production for the remaining terms of their PPAs. Consistent deliveries will provide consumers with electricity at a reasonable price and reduce the potential need to procure replacement renewable power. In addition, the Amendment will provide utility customers greater price certainty and less volatility than otherwise applicable fossil fuel-based SRAC and will benefit PG&E by providing some revenue certainty.

⁵ D.06-07-032. Legacy PPA Amendment Section 1.04, Addition of Forecasting Attachment.

⁶ Legacy PPA Amendment Sections 1.05, Additional Representations, Warranties, and Covenants Applicable to Renewable Facilities and 1.07, Additional Defined Terms.

Last, we recognize that by adopting PG&E's application, we enable certain legacy renewable QFs to have some price certainty for a period of up to 5 years in exchange for some updated contract performances. As the vintage of the existing renewable QF fleet continues, we anticipate that further contract modifications will be requested by one or more party. We anticipate that some of these existing facilities will also seek a transition into a new PPA arrangement, either a new QF standard offer contract or some other agreement where they are eligible. It is our intent to continue to modernize the contractual relationships between buyer and seller to make them comparable to other more recent agreements. We encourage this type of approach going forward.

5. Categorization and Need for Hearings

In Resolution ALJ 176-3279 dated August 18, 2011, the Commission preliminary categorized this application as Ratesetting and preliminarily determined that hearings were necessary. This matter is uncontested. Therefore, a public hearing is not necessary.

6. Waiver of Comment Period

No protests were filed to the Application and no hearing was held. Today's decision grants the relief requested in an uncontested matter. Accordingly, pursuant to Rule 14.6(c)(2), the otherwise applicable 30-day period for public review and comment is waived.

7. Assignment of Proceeding

Mark J. Ferron is the assigned Commissioner and David M. Gamson is the assigned Administrative Law Judge in this proceeding.

Findings of Fact

1. No party protested PG&E's application.

2. Payments under the FEPAs are based on the same energy price components as the QFs' otherwise applicable SRAC, except that the energy price is fixed.

3. The FEPA for each of the 48 QFs offers generally the same terms and energy price as the Legacy PPA Amendment but at pricing that is better aligned with the operations of renewable QFs.

4. PG&E's customers should not experience any significant difference in procurement cost due to the Amendment, unless actual gas prices during the Amendment term deviate significantly from currently forecasted prices.

5. The FEPAs are consistent with the QF/CHP Settlement.

6. The pro-forma FEPA incorporates the essential terms of the PPA Legacy Amendment.

Conclusion of Law

The FEPAs are reasonable and should be approved.

O R D E R

IT IS ORDERED that:

1. Pacific Gas and Electric Company's Fixed Price Energy Amendment contracts, containing the Fixed Energy Price Amendments language set forth in Attachment A, with the counterparties in Attachment B, are approved.

2. Pacific Gas and Electric Company (PG&E) is authorized to recover all costs incurred under the Fixed Energy Price Amendment (FEPA) contracts in rates, subject only to ongoing review of the reasonableness of PG&E's administration of the FEPA through the Energy Resource Recovery Account or other appropriate ratemaking mechanism.

3. No hearings are necessary.

4. Application 11-08-005 is closed.

This order is effective today.

Dated December 1, 2011, at San Francisco, California.

MICHAEL R. PEEVEY

President

TIMOTHY ALAN SIMON

MICHEL PETER FLORIO

CATHERINE J.K. SANDOVAL

MARK J. FERRON

Commissioners

ATTACHMENT A Pro-Forma Fixed Energy Price Amendment

2011 RENEWABLE FIXED ENERGY PRICE AMENDMENT TO THE QUALIFYING FACILITY POWER PURCHASE AGREEMENT BETWEEN (NAME OF QUALIFYING FACILITY) AND PACIFIC GAS AND ELECTRIC COMPANY (PG&E LOG NO. _____)

This 2011 Renewable Fixed energy Price Amendment to [Title of applicable contract] (“Amendment”), by and between Pacific Gas and Electric Company, a California corporation (“Buyer”), and [Seller's name], a [Seller's form of business entity and state of registration] (“Seller”), is entered into as of the later of the signature dates found at the signature block, below. Buyer and Seller are sometimes referred to in this Amendment individually as a “Party” and collectively as the “Parties”. Unless the context specifies or requires, any initially capitalized term used but not otherwise defined in this Amendment has the meaning given to such term in the Agreement (as defined in Recital A).

RECITALS

A. The Parties entered into that certain [Title of applicable contract] dated [Date of applicable contract], (the “Agreement”);

B. The Term of Agreement expires on [Expiration Date, if applicable];

C. Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, the California Cogeneration Council, the Cogeneration Association of California, the Energy Producers and Users Coalition, the Independent Energy Producers Association, the Division of Ratepayer Advocates of the California Public Utilities Commission, and The Utility Reform Network (collectively, the “Settling Parties”) entered into the Qualifying Facility and Combined Heat and Power (“QF/CHP”) Settlement dated October 8, 2010, which was approved by the California Public Utilities Commission (“CPUC” or “Commission”) in Decision (“D.”) 10-12-035 (“Settlement Agreement”);

D. Under the Settlement Agreement, Seller may execute an Amendment to Legacy Power Purchase Agreement (“PPA”) to amend the energy price formula of its Agreement;

E. The Parties have agreed that Seller shall be paid an escalating Fixed Energy Price based on the Amendment to Legacy PPA for energy delivered during the Amendment Term, as provided below.

NOW, THEREFORE, the Parties, intending to be legally bound, agree as follows:

ARTICLE 1: AMENDMENT TERM

The Amendment Term shall be established as follows:

1.1 Effective Date. This Amendment shall become effective the first day of the month after all Conditions Precedent have been met (“Effective Date”).

1.2 Delivery Term. This Amendment shall be effective from the Effective Date until terminated in accordance with Article 1.3 (“Delivery Term”).

1.3 Termination. This Amendment shall terminate upon the earlier of: (a) the expiration of the Term of Agreement; (b) five years after the Effective Date (“Termination Date”); (c) as provided in Section 7.2, or (d) at Buyer’s option, upon an Event of Default, as defined herein.

ARTICLE 2: FIXED ENERGY PRICE

During the Delivery Term, the following Fixed Energy Price shall be paid for energy delivered in accordance with the terms of this Amendment.

2.1 Fixed Energy Price. Seller shall be paid a time of delivery-adjusted price for energy delivered in accordance with the terms of this Amendment at the fixed rate of \$53.70 per Megawatt-hour (“MWh”) escalated by two percent (2%) every twelve (12) months from the Effective Date (“Fixed Energy Price”).

2.2 Time of Delivery Adjustment. The Fixed Energy Price shall be adjusted by the following Time of Delivery (“TOD”) Factors applicable to each of the TOD Periods, defined below, in which energy is delivered:

(a) TOD Factors are as follows:

TOD Factors		
Time Period	Summer	Winter
Peak	1.2564	N/A
Partial-Peak	1.1535	1.1395
Off-Peak	0.9155	0.9628
Super Off-Peak	0.7439	0.8216

(b) TOD Periods

TOD Periods – by Season and Time

Time Period	Summer May 1 – October 31	Winter November 1 – April 30	Applicable Days
Peak	Noon – 6:00 p.m.	N/A	Weekdays except Holidays
Partial-Peak	8:30 a.m. – Noon 6:00 p.m. – 9:30 p.m.	8:30 a.m. – 9:30 p.m. 6:00 p.m. – 9:30 p.m.	Weekdays except Holidays
Off-Peak	9:30 p.m. – 1:00 a.m. 5:00 a.m. – 8:30 a.m.	9:30 p.m. – 1:00 a.m. 5:00 a.m. – 8:30 a.m.	Weekdays except Holidays
	5:00 a.m. – 1:00 a.m.	5:00 a.m. – 1:00 a.m.	Weekends & Holidays
Super Off-Peak	1:00 a.m. – 5:00 a.m.	1:00 a.m. – 5:00 a.m.	All Days

ARTICLE 3: GENERATION FORECASTING AND OUTAGE NOTIFICATION

3.1 General Provisions. The Parties shall make good faith efforts to abide by the requirements and procedures for Forecasting and Outage Notification described in Article 3 and Appendix A, herein, and shall agree upon reasonable changes to these requirements and procedures from time to time as necessary to: (a) support Buyer's compliance with the California Independent System Operator's ("CAISO") Scheduling requirements related to the Agreement; (b) accommodate changes to the Parties' respective technology and organizational structure, (c) address changes in the Operating and Scheduling procedures of Seller, Buyer and the CAISO, including automated Forecast and Outage submissions. The Parties agree that the Forecasts and Outages generated by, or otherwise resulting from, the Forecasting and Notification requirements and procedures in this Amendment are non-binding on Seller.

3.2 Seller's Forecasting Requirements. Seller shall provide Buyer with the information described in this article in a form reasonably acceptable to Buyer using the Notification procedures set forth in Appendix A.

(a) Annual Forecast of Generation. Within thirty (30) days of the Effective Date and no later than June 1 of each year during the Delivery Term, Seller shall provide Buyer with a non-binding Forecast of the hourly generation for each day in each month of the following calendar year.

(b) Monthly Forecast of Generation. Ten (10) Business Days before the beginning of each month during the Delivery Term, Seller shall provide to Buyer a non-binding Forecast of the hourly generation for each day of the following month.

(c) Daily Forecast of Generation. During the Delivery Term, Seller shall provide a Day-Ahead Forecast of generation (the "Day-Ahead Generation Notice") to Buyer via Buyer's internet site, as provided in Appendix A, for each day no later than fourteen (14) hours before the beginning of the "Preschedule Day", as defined by the WECC, for such day. The current industry standard Preschedule Day timetable is as follows:

- (1) Monday – Preschedule Day for Tuesday
- (2) Tuesday – Preschedule Day for Wednesday
- (3) Wednesday – Preschedule Day for Thursday
- (4) Thursday – Preschedule Day for Friday and Saturday
- (5) Friday – Preschedule Day for Sunday and Monday

Exceptions to this timetable to accommodate holidays, etc., are posted on the WECC website (www.wecc.biz) under the document title, "Preschedule Calendar." Each Day-Ahead Generation Notice shall clearly identify, for each hour, Seller's Forecast of all amounts of generation pursuant to the Agreement and this Amendment. If the generation changes by at least one (1) megawatt ("MW") (AC) as of a time that is less than fourteen (14) hours prior to the Preschedule Day, then Seller will notify Buyer of such change by telephone and will send a revised Notice to Buyer's Internet site set forth in Appendix A. Such Notices shall describe the beginning date and time of the

event resulting in the change in generation, the expected end date and time of such event, the revised expected generation in MW AC, and any other necessary information.

Day-Ahead Desk
Primary Telephone: (415) 973-6222
Backup Telephone: (415) 973-4500

(d) Hourly Forecast of Generation. Seller shall notify Buyer of any changes in generation of one (1) MW (AC) or more, whether due to Forced Outage, Force Majeure, or any other cause, as soon as reasonably possible, but no later than one (1) hour before Buyer or Third Party SC (as applicable) is required to submit Schedules to the CAISO in accordance with the CAISO's Hour-Ahead Scheduling Process (HASP). If generation changes by at least one (1) MW less than one (1) hour before the HASP deadline, Seller should also notify Buyer. The Notice will state the beginning date and time of the event resulting in the change in generation, the expected end date and time of such event, the expected generation in MW (AC), and any other information reasonably requested by CAISO or Buyer.

3.3 Outage Notification. Seller shall notify Buyer of Outages in accordance with this article using a form reasonably acceptable to Buyer and the Notification procedures in Appendix A.

(a) CAISO Approval of Outage(s). Buyer is responsible for obtaining CAISO approvals for Project Outages and for revising Outage Schedules if Outages are not approved by CAISO. Buyer will make reasonable efforts to notify Seller of CAISO approval in a timely manner. Buyer is responsible for entering Project Outages in the "Scheduling and Logging for ISO of California" ("SLIC") Web Client.

(b) Planned Outages. Seller will include its proposed Planned Outage Schedule in its Annual Forecast of generation and implement the Notification procedures set forth in Appendix A no later than August 1st of each year. Whenever possible, Seller will notify Buyer of changes to the yearly Planned Outage schedule 60 days prior to the start of the month when this change is expected to occur. Seller will provide updates regarding a Planned Outage at least fourteen (14) days before each Planned Outage. Seller shall not conduct Planned Outages during the months of January, June through September, and December. Seller shall request a change to the Planned Outage Schedule if Seller believes the Project must be shut down to conduct maintenance that cannot be delayed until the next Scheduled Planned Outage consistent with Good Utility Practices. Seller shall not substitute Energy from any other source during a Planned Outage. At any time up to the commencement of work for the Planned Outage, Buyer may direct Seller to change its Outage Schedule as ordered by CAISO. If Buyer requests any other change to a Planned Outage Schedule, Seller may propose an alternative Schedule change or use commercially reasonable efforts to accommodate Buyer's request.

(c) Forced Outages. Seller shall notify Buyer of a Forced Outage in accordance with the procedures in Appendix A. Seller shall inform Buyer of any developments that will affect either the duration of such Outage or the availability of the Project during or after the end of such Outage.

(d) Prolonged Outages. Seller shall notify Buyer of a Prolonged Outage as soon as practicable and notify Buyer when the Project is again capable of meeting its nameplate capacity on a pro rata basis, in accordance with the provisions in Appendix A, section B(2)(f). Seller shall not substitute Energy from any other source for the output of the Project during a Prolonged Outage.

(e) Communications with CAISO. Buyer, in coordination with Seller, will be responsible for communicating all Outage information to the CAISO.

(f) Changes to Operating Procedures. Seller acknowledges that the Outage Notification procedures and operating procedures described in this Amendment are subject to change by Buyer from time to time. Seller agrees to work in good faith to implement any such changes, so long as such change does not increase Seller's cost of performance by more than a *de minimis* amount.

3.4 CAISO Charges. Buyer is responsible for all CAISO charges and is entitled to receive all CAISO revenues related to generation availability.

ARTICLE 4: CONDITIONS PRECEDENT

This Amendment shall not be effective until and unless each of the following conditions has been fully satisfied or waived in writing by the Parties:

4.1 Settlement in Effect. The Settlement Agreement is in effect.

4.2 PURPA Agreement. At the start of the Amendment Term, Buyer and Seller are parties to an effective Qualifying Facility ("QF") PPA pursuant to the Public Utility Regulatory Policies Act of 1978 ("PURPA").

4.3 Eligible Renewable Energy Resource. Seller is an Eligible Renewable Energy Resource.

4.4 CPUC Approval. The Amendment has received CPUC Approval. "CPUC Approval" means a final and non-appealable order of the CPUC, without conditions or modifications unacceptable to the Parties, or either of them, which contains the following terms:

(a) Approves this Agreement in its entirety, including payments to be made by the Buyer, subject to CPUC review of the Buyer's administration of the Agreement; and

(b) Finds that any procurement pursuant to this Agreement is procurement from an eligible renewable energy resource for purposes of determining Buyer's compliance with any obligation that it may have to procure eligible renewable energy resources pursuant to the California Renewables Portfolio Standard (Public Utilities Code Section 399.11 *et seq.*), Decision ("D.") 03-06-071, or other applicable law. CPUC Approval will be deemed to have occurred on the date that a CPUC decision containing such findings becomes final and non-appealable.

4.5 Executed by Parties. This Amendment has been duly executed by an authorized representative of each Party.

ARTICLE 5: ADDITIONAL REPRESENTATIONS, WARRANTIES, AND COVENANTS

5.1 Waiver. By executing this Amendment, Seller waives the right to execute the "Amendment to Legacy PPAs" referenced in Article 11, section 11.1.2.

5.2 RPS Eligibility; Conveyance of Green Attributes.

(a) Seller, and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement that:

(i) The Project qualifies and is certified by the CEC as an Eligible Renewable Energy Resource ("ERR") as such term is defined in Public Utilities Code Section 399.12 or Section 399.16; and

(ii) The Project's output delivered to Buyer qualifies under the requirements of the California Renewables Portfolio Standard. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law.

(b) Seller and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement the Renewable Energy Credits transferred to Buyer conform to the definition and attributes required for compliance with the California Renewables Portfolio Standard, as set forth in California Public Utilities Commission Decision 08-08-028, and as may be modified by subsequent decision of the California Public Utilities Commission or by subsequent legislation. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law.

(c) Seller warrants that all necessary steps to allow the Renewable Energy Credits transferred to Buyer to be tracked in the Western Renewable Energy Generation Information System will be taken prior to the first delivery under the contract.

(d) Seller hereby provides and conveys all Green Attributes associated with all electricity generation from the Project to Buyer as part of the Product being delivered. Seller represents and warrants that Seller holds the rights to all Green Attributes from the Project, and Seller agrees to convey and hereby conveys all such Green Attributes to Buyer as included in the delivery of the Product from the Project.

ARTICLE 6: ADDITIONAL DEFINED TERMS.

Agreement: Has the meaning set forth in Recital A. However, for purposes of Sections 4.4, 5.2, and 7.4, the word "Agreement" shall mean this Amendment.

Amendment to Legacy PPA: The contract amendment described by Section 11.1.2 of the Settlement Agreement.

Annual Forecast of Generation: That estimate of generation described in Section 3.2(a).

Business Day: Any day except a Saturday, Sunday, the Friday after the United States Thanksgiving holiday, or a Federal Reserve Bank holiday that begins at 8:00 a.m. and ends at 5:00 p.m. local time for the Party sending a Notice or payment or performing a specified action.

CAISO: The California Independent System Operator Corporation or successor entity.

CAISO-Approved Quantity: The total quantity of electric energy that Buyer Schedules with the CAISO and the CAISO approves in its final Schedule which is published in accordance with the CAISO Tariff.

CAISO Tariff: The CAISO Tariff, including the rules, protocols, procedures and standards attached thereto, as the same may be amended or modified from time to time and approved by the FERC, or any successor entity.

California Renewables Portfolio Standard: California Public Utilities Code Section 399.11, *et seq.*, or any successor thereto.

Capacity Attributes: Any current or future defined characteristic, certificate, tag, credit, or ancillary service attribute, whether general in nature or specific as to the location or any other attribute of the Project, intended to value any aspect of the capacity of the Project to produce energy or ancillary services, including, but not limited to, any accounting construct so that the full contract capacity of the Project may be counted toward a resource adequacy requirement or any other measure by the CPUC, the CAISO or the FERC.

CEC: California Energy Commission or any successor entity.

Conditions Precedent: Those conditions listed in Article 4.

CPUC: The California Public Utilities Commission or any successor entity.

Day-Ahead: As defined and may be modified in the CAISO Tariff.

Delivery Term: Has the meaning set forth in Section 1.2.

Effective Date: Has the meaning set forth in Section 1.1.

Eligible Renewable Energy Resources or ERR: Has the same meaning as that term is used in California Public Utilities Code Section 399.12 and California Public Resources Code Section 25741, as either Law is amended or supplemented from time to time.

Event of Default: For the limited purposes of this Amendment, any representation or warranty by Seller in Section 5.2, which becomes false or misleading in any material respect during the Delivery Term; provided that, if a change in law occurs after the Execution Date that causes the representation and warranty made by Seller in Section 5.2 to be materially false or misleading, such breach of the representation or warranty in Section 5.2 shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in Law during the Delivery Term in order to make the representation and warranty no longer false or misleading.

Execution Date: The date which is the later of the signature dates found at the signature block, below.

FERC: The Federal Energy Regulatory Commission or any successor entity.

Forecast: The hourly forecast of (i) the total electric Energy production of the Facility (in MWh) when the Facility is not PIRP-eligible, or (ii) the available total generation capacity of the Facility (in MW) when the Facility is PIRP-eligible, as defined in the CAISO Tariff, in each case net of the site host load and Station Use.

Green Attributes: “Green Attributes” means any and all credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, attributable to the generation from the Project, and its avoided emission of pollutants. Green Attributes include but are not limited to Renewable Energy Credits, as well as: (1) any avoided emission of pollutants to the air, soil or water such as sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO) and other pollutants; (2) any avoided emissions of carbon dioxide (CO₂), methane (CH₄), nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change, or otherwise by law, to contribute to the actual or potential threat of altering the Earth’s climate by trapping heat in the atmosphere;¹ (3) the reporting rights to these avoided emissions, such as Green Tag Reporting Rights. Green Tag Reporting Rights are the right of a Green Tag Purchaser to report the ownership of accumulated Green Tags in compliance with federal or state law, if applicable, and to a federal or state agency or any other party at the Green Tag Purchaser’s discretion, and include without limitation those Green Tag Reporting Rights accruing under Section 1605(b) of The Energy Policy Act of 1992 and any present or future federal, state, or local law, regulation or bill, and international or foreign emissions trading program. Green Tags are accumulated on a MWh basis and one Green Tag represents the Green Attributes associated with one (1) MWh of Energy. Green Attributes do not include (i) any energy, capacity, reliability or other power attributes from the Project, (ii) production tax credits associated with the construction or operation of the Project and other financial incentives in the form of credits, reductions, or allowances associated with the project that are applicable to a state or federal income taxation obligation, (iii) fuel-related subsidies or “tipping fees” that may be paid to Seller to accept certain fuels, or local subsidies received by the generator for the destruction of particular preexisting pollutants or the promotion of local environmental benefits, or (iv) emission reduction credits encumbered or used by the Project for compliance with local, state, or federal operating and/or air quality permits. If the Project is a biomass or biogas facility and Seller receives any tradable Green Attributes based on the greenhouse gas reduction benefits or other emission offsets attributed to its fuel usage, it shall provide Buyer with sufficient Green Attributes to ensure that there are zero net emissions associated with the production of electricity from the Project.

Green Tag Reporting Rights: Green Tag Reporting Rights are the right of a Green Tag Purchaser to report the ownership of accumulated Green Tags in compliance with federal or state law, if applicable, and to a federal or state agency or any other party at the Green Tag Purchaser’s discretion, and include without limitation those Green Tag Reporting Rights accruing under Section 1605(b) of The Energy Policy Act of 1992 and any present or future federal, state, or local law, regulation or bill, and international or foreign emissions trading program. Green Tags are accumulated on a MWh basis and one Green Tag represents the Green Attributes associated with one (1) MWh of Energy.

¹ Avoided emissions may or may not have any value for GHG compliance purposes. Although avoided emissions are included in the list of Green Attributes, this inclusion does not create any right to use those avoided emissions to comply with any GHG regulatory program.

Hour-Ahead Scheduling Deadline: Thirty (30) minutes before the deadline established by the CAISO for the submission of Schedules for the applicable hour.

Law: Means any statute, law, treaty, rule, regulation, CEC guidance document, tariff or other legal or regulatory determination or limitation by a court or governmental authority of competent jurisdiction, including any of the foregoing that are enacted, amended, or issued after the Execution Date, and which becomes effective after the Execution Date, or any legally binding interpretation of the foregoing.

Notice or Notification: The communication of generation, Operation, Outage, or other conditions related to the Facility pursuant to Article 3 and as described by Appendix A.

Operate: "Operate" and its variants mean to provide all the operation, engineering, purchasing, repair, supervision, training, inspection, testing, protection, use management, improvement, replacement, refurbishment, retirement, and maintenance activities associated with operating the Facility in order to produce the Product in accordance with Prudent Electrical Practices.

Outage: Means all Forced Outages, Planned Outages, and Prolonged Outages, unless specifically limited to a particular type of outage by the context in which the word "Outage" appears.

Participating Transmission Owner: as defined in the CAISO Tariff.

PIRP (Participating Intermittent Resource Program): The CAISO's intermittent resource program initially established pursuant to Amendment 42 of the CAISO Tariff in FERC Docket ER02-922-000, or any successor program that Buyer determines accomplishes a similar purpose.

Planned Outage: Means the removal of equipment from service availability for inspection and/or general overhaul of one or more major equipment groups. To qualify as a Planned Outage, the maintenance (a) must actually be conducted during the Planned Outage, and in Seller's sole discretion must be of the type that is necessary to reliably maintain the Project, (b) cannot be reasonably conducted during Facility operations, and (c) cause the generation level of the Project to be reduced by at least ten percent (10%) of the contract capacity.

Product: The energy, capacity and all ancillary products, services or attributes similar to the foregoing which are or can be produced by or associated with the Project, including without limitation, renewable attributes, Renewable Energy Credits, Capacity Attributes, and Green Attributes.

Project: The Facility.

Prolonged Outage: Any period of more than thirty (30) consecutive days during which the Project is or will be unable, for whatever reason, to provide at least sixty percent (60%) of the Contract Capacity.

Renewable Energy Credits: Has the meaning set forth in California Public Utilities Code Section 299.12(f) and CPUC D.08-08-028, as may be amended from time to time or as further defined or supplemented by law.

RPS Program: The State of California Renewable Portfolio Standard Program, as codified at California Public Utilities Code § 399.11, et seq., or any successor thereto.

Schedule: The action of Buyer, or its designated representatives, of notifying, requesting, and confirming to the CAISO, the CAISO-Approved Quantity of electric energy.

Settlement Agreement: Has the meaning set forth in Recital C.

Settlement Effective Date: The date on which the Settlement Agreement becomes effective pursuant to the terms and conditions set forth therein.

Trading Day: The day in which Day-Ahead trading occurs in accordance with the Western Electricity Coordinating Council's Preschedule Calendar (as found on the Western Electricity Coordinating Council's website).

Web Client: A Buyer provided web based system or an email address designated by Buyer.

Western Renewable Energy Generation Information System or WREGIS: The tracking system established pursuant to California Public Utilities Code section 399.25(c).

ARTICLE 7: GENERAL PROVISIONS

7.1 Agreement Unchanged. Except as expressly set forth in this Amendment, the Agreement remains unchanged and, so modified, the Agreement shall remain in full force and effect.

7.2 No Fault Termination. PG&E shall request CPUC Approval of the Amendment following the Execution Date. If for any reason PG&E has not submitted an application to the CPUC for this purpose within 90 days of the Execution Date, Seller may terminate this Amendment without penalty or liability to PG&E. If the Conditions Precedent are not satisfied or waived in writing by both Parties on or before December 31, 2011, then (a) either Party may terminate this Amendment by providing written notice to the other Party and (b) neither Party shall have any obligation or liability to the other hereunder, including for a termination payment or otherwise, by reason of a termination made pursuant to this provision.

7.3 Severability. If any provision of this Amendment is held invalid or unenforceable by any court of competent jurisdiction, the other provisions of this Amendment will remain in full force and effect. Any provision of this Amendment held invalid or unenforceable only in part or degree will remain in full force and effect to the extent not held invalid or unenforceable.

7.4 Governing Law. THIS AGREEMENT AND THE RIGHTS AND DUTIES OF THE PARTIES HEREUNDER SHALL BE GOVERNED BY AND CONSTRUED, ENFORCED AND PERFORMED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW. TO THE EXTENT ENFORCEABLE AT SUCH TIME EACH PARTY WAIVES ITS RESPECTIVE RIGHT TO ANY JURY TRIAL WITH RESPECT TO ANY LITIGATION ARISING UNDER OR IN CONNECTION WITH THIS AMENDMENT.

7.5 Execution in Counterparts. This Amendment may be executed in one or more counterparts, each of which will be deemed to be an original of this Amendment and all of which, when taken together, will be deemed to constitute one and the same agreement. The exchange of copies of

this Amendment and of signature pages by facsimile transmission or by other electronic means shall constitute effective execution and delivery of this Amendment as to the Parties and may be used in lieu of the original Amendment for all purposes. Signatures of the Parties transmitted by facsimile or by other electronic means shall be deemed to be their original signatures for all purposes.

7.6 Entire Agreement. This Amendment sets forth the entire agreement of the Parties with respect to the subject matter herein, and supersedes all previous understandings, written or oral, with respect thereto.

7.7 Subsequent Amendment. This Amendment may not be amended, modified, abrogated or superseded by a subsequent agreement unless such subsequent agreement is in the form of a written instrument signed by the Parties.

IN WITNESS WHEREOF, the Parties have caused this Amendment to be duly executed by their respective authorized representatives.

[SELLER'S NAME],
a [Seller's business registration]

**PACIFIC GAS AND ELECTRIC COMPANY, a
California corporation**

Signature:
Name:
Title:
Date:

Signature:
Name:
Title:
Date

APPENDIX A to ATTACHMENT A

NOTIFICATION REQUIREMENTS FOR AVAILABLE CAPACITY

A. Notification Requirements for Routing Start-Ups and Shutdowns. Prior to paralleling or after disconnecting from the electric system, notify the applicable Participating Transmission Owner's ("PTO") switching center:

- Call the applicable PTO switching center and advise of the intent to parallel.
- Call the applicable PTO switching center after the unit has been paralleled and report the parallel time and intended unit output.
- Call the applicable PTO switching center after any routine separation.

B. Submission of Generation and Planned and Prolonged Outages.

1. Submit information by posting to PG&E's Power Procurement Information Center, which is located at www.pge.com under "B2B" at the bottom of the home page. After selecting "B2B" at the bottom of the page, select "Wholesale Power" in the center of the next page. Then select "Electric Procurement" along the left banner of the next page. After selecting the "Power Procurement Information Center" icon in the middle of the page, you will be required to enter a username and password, which will be assigned to you by PG&E's Bilateral Settlements Group.

2. If the website is unavailable, implement the procedures set forth below:

a. For all email correspondence, enter the following in the email subject field: Delivery Date Range, Contract Name, Email Purpose (For example: "dd/mm/yyyy through dd/mm/yyyy XYZ Company Project #2 Daily Forecast of Generation")

b. For Annual Forecasts of Generation, email to DAenergy@pge.com and BilatSettlements@pge.com.

c. For Monthly and Daily Forecasts of Generation, email to DAenergy@pge.com.

d. For Daily Forecasts of Generation after fourteen (14) hours before the WECC Preschedule Day, but before the CAISO deadline for submitting Day-Ahead Schedules, call primary phone (415) 973-6222 or backup phone (415) 973-4500. Also send email to DAenergy@pge.com.

e. For Hourly Forecasts of Generation, call PG&E's Real Time Desk at (415) 973-4500 and email to RealTime@pge.com.

f. For Planned Outages and Prolonged Outages, complete the specifics below and submit by email to PGOutageCoordination@pge.com, DAenergy@pge.com and Bilat_Settlements@pge.com.

i. Email subject Field: dd/mm/yyyy through dd/mm/yyyy XYZ Company Project #2 Outage Notification

ii. Email body:

- 1. Type of Outage: Planned Outage, Forced Outage, Prolonged Outage**
- 2. Start Date and Start Time**
- 3. Estimated or Actual End Date and End Time**
- 4. Date and time when reported to PG&E and name(s) of PG&E representative(s) contacted**
- 5. Text description of additional information as needed, including, but not limited to, changes to a Planned Outage, Prolonged Outage or Forced Outage.**

C. Forced Outage Reporting

1. Forced Outages – Seller shall notify PG&E Merchant Generation desk verbally within 10 minutes of event or as soon as reasonably possible, after ensuring the safety of all personnel and securing of all facility equipment.

a. Verbal notification shall include time of forced Outage, cause, current availability and estimated return date and time.

b. After verbally notifying PG&E Merchant Generation desk of the forced Outage, Seller shall also make commercially reasonable efforts to notify PG&E Settlements via PG&E's electronic website "PPIC".

c. If the "PPIC website is unavailable, submit the following information via email to Bilat_Settlements@pge.com.

i. Email subject Field: dd/mm/yyyy through dd/mm/yyyy XYZ Company Project #2 Outage Notification

ii. Email body:

- 1. Type of Outage: Planned Outage, Forced Outage, Prolonged Outage***
- 2. Start Date and Start Time***
- 3. Estimated or Actual End Date and End Time***
- 4. Date and time when reported to PG&E and name(s) of PG&E representative(s) contacted***

End of Attachment A

**ATTACHMENT B
LIST OF RENEWABLE QF COUNTERPARTIES**

PG&E Log #	QF Name	Nameplate
1 16W009	ALTAMONT MIDWAY LTD.	48,900
2 13H132	DIGGER CREEK RANCH	600
3 15H006	EIF HAYPRESS LLC (MDL)	8,700
4 15H005	EIF HAYPRESS, LLC (LWR)	6,100
5 13H001	EL DORADO (MONTGOMERY CK)	2,600
6 10H007	ERIC AND DEBBIE WATTENBURG	275
7 10H010	FIVE BEARS HYDROELECTRIC	990
8 25H037	FRIANT POWER AUTHORITY	25,000
9 01W146A	GREEN RIDGE POWER LLC (100 MW - A)	43,100
10 01W146D	GREEN RIDGE POWER LLC (100 MW - D)	15,000
11 16W011	GREEN RIDGE POWER LLC (23.8 MW)	10,800
12 01W018	GREEN RIDGE POWER LLC (5.9 MW)	5,900
13 01W035	GREEN RIDGE POWER LLC (70 MW)	54,000
14 15H002	HENWOOD ASSOCIATES	594
15 25W105	INTERNATIONAL TURBINE RESEARCH	34,000
16 25H073	KERN HYDRO (OLCESE)	16,000
17 25H150	KINGS RIVER HYDRO CO.	1,000
18 10P058	LANGERWERF DAIRY	85
19 25H040	MADERA CANAL (1174 + 84)	563
20 25H042	MADERA CANAL (1923)	925
21 25H041	MADERA CANAL STATION 1302	424
22 25H036	MADERA-CHOWCHILLA WATER AND POWER AUTHORITY	2,000
23 13H047	MALACHA HYDRO L.P.	26,000
24 18P059	MONTEREY REGIONAL WASTE MGMT DIST.	5,000
25 15H059	PLACER COUNTY WATER AGENCY	500
26 06H011	ROCK CREEK L.P.	3,700
27 16H033	ROCK CREEK WATER DISTRICT	700
28 01W011	SEA WEST ENERGY - ALTECH	5,760
29 01W007	SEA WEST ENERGY - CWES	2,100
30 01W006	SEA WEST ENERGY - SEAWEST	65
31 01W015	SEA WEST ENERGY - TAXVEST	715
32 01W014	SEA WEST ENERGY - VIKING	1,690
33 01W012	SEA WEST ENERGY - WESTERN	2,700
34 19H048	SHAMROCK UTILITIES (CEDAR FLAT)	300
35 13H012	SHAMROCK UTILITIES (CLOVER LEAF)	200
36 13P163EO2	SIERRA PACIFIC IND. (ANDERSON)	5,000

37	13C049	SIERRA PACIFIC IND. (BURNEY)	20,000
38	12C008	SIERRA PACIFIC IND. (LINCOLN)	7,500
39	10C018	SIERRA PACIFIC IND. (QUINCY)	20,000
40	10C010	SIERRA PACIFIC IND.(SONORA)	7,500
41	13H016	SNOW MOUNTAIN HYDRO LLC (BURNEY CREEK)	3,000
42	13H013	SNOW MOUNTAIN HYDRO LLC (COVE)	5,000
43	13H035	SNOW MOUNTAIN HYDRO LLC (PONDEROSA BAILEY CREEK)	1,100
44	13H130	STEVE & BONNIE TETRICK	100
45	12H007	STS HYDROPOWER LTD. (KANAKA)	1,100
46	13H006	SUTTER'S MILL	150
47	13H040	TKO POWER (SOUTH BEAR CREEK)	4,950
48	13H124	WATER WHEEL RANCH	975
Total			403,361

(END OF ATTACHMENT B)