

**PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

**ENERGY DIVISION**

**I. D. # 11534  
RESOLUTION E-4521  
September 13, 2012**

**REDACTED  
RESOLUTION**

Resolution E-4521. Pacific Gas and Electric Company requests approval of an amended and restated power purchase agreement with Bottle Rock Power LLC, owned by private investment companies including US Renewables Group and Riverstone Holdings.

**PROPOSED OUTCOME:** This Resolution denies cost recovery for the amended and restated power purchase agreement between Pacific Gas and Electric Company and Bottle Rock Power LLC.

**ESTIMATED COST:** None

By Advice Letter 4048-E filed on May 25, 2012.

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**SUMMARY**

**Cost recovery for Pacific Gas and Electric Company's amended and restated renewable energy power purchase agreement with Bottle Rock Power LLC is denied.**

Pacific Gas and Electric Company (PG&E) requests approval of a power purchase agreement (PPA) with Bottle Rock Power LLC (Bottle Rock), owned by private investment companies including US Renewables Group and Riverstone Holdings. Bottle Rock operates an existing geothermal facility in The Geysers region of Lake County, CA and is currently providing approximately 80 gigawatt hours per year (GWh/year) of generation at a capacity of 10 MW for a term of 15 years.

The PPA under consideration for approval is the third amended and restated PPA between PG&E and Bottle Rock. The original PPA resulted from PG&E's 2005 RPS Solicitation. The Bottle Rock facility has been burdened with cost overruns and performance issues since the execution of the original PPA in 2006. The third amended and restated PPA requests approval of a 56 percent increase

in the PPA price, waives significant accrued performance damages plus an extension of the contract term from 15 to 20 years.

The CPUC denies cost recovery for the third amended and restated PPA between PG&E and Bottle Rock. PG&E did not adequately compare the Bottle Rock PPA to other less costly and more valuable projects that existed at the time the PPA was re-negotiated and signed. Other RPS-eligible projects that are online, located in-state and provide baseload generation were available at the time that PG&E executed the amended and restated PPA that are lower in price and significantly higher in value. Furthermore, because PG&E has sufficient RPS-eligible resources under contract PG&E’s RPS portfolio need does not warrant having PG&E’s ratepayers pay higher costs for generation from Bottle Rock.

The following table summarizes the project-specific features of the agreement:

<b>Generating Facility</b>	<b>Type</b>	<b>Term Years</b>	<b>MW Capacity</b>	<b>Annual Deliveries</b>	<b>Online Date</b>	<b>Project Location</b>
Bottle Rock Power	Geothermal	20	10-25	85-219 GWh	CPUC Approval	Lake Co., CA

**BACKGROUND**

**Overview of the Renewables Portfolio Standard (RPS) Program**

The California RPS program was established by Senate Bill (SB) 1078, and has been subsequently modified by SB 107, SB 1036, and SB 2 (1X).<sup>1</sup> The RPS program is codified in Public Utilities Code Sections 399.11-399.31.<sup>2</sup> Under SB 2 (1X), the RPS program administered by the Commission requires each retail seller to procure eligible renewable energy resources so that the amount of electricity generated from eligible renewable resources be an amount that equals an average of 20 percent of the total electricity sold to retail customers in California for compliance period 2011-2013; 25 percent of retail sales by December 31, 2016; and 33 percent of retail sales by December 31, 2020.<sup>3</sup>

<sup>1</sup> SB 1078 (Sher, Chapter 516, Statutes of 2002); SB 107 (Simitian, Chapter 464, Statutes of 2006); SB 1036 (Perata, Chapter 685, Statutes of 2007); SB 2 (1X) (Simitian, Chapter 1, Statutes of 2011, First Extraordinary Session).

<sup>2</sup> All further references to sections refer to Public Utilities Code unless otherwise specified.

<sup>3</sup> D.11-12-020 established a methodology to calculate procurement requirement quantities for the three different compliance periods set forth in Section 399.15 (2011-2013, 2014-2016, and 2017-2020).

Additional background information about the Commission's RPS Program, including links to relevant laws and Commission decisions, is available at <http://www.cpuc.ca.gov/PUC/energy/Renewables/overview.htm> and <http://www.cpuc.ca.gov/PUC/energy/Renewables/decisions.htm>.

### **NOTICE**

Notice of AL 4048-E was made by publication in the Commission's Daily Calendar. PG&E states that a copy of the Advice Letter was mailed and distributed in accordance with Section 3.14 of General Order 96-B.

### **PROTESTS**

PG&E's Advice Letter 4048-E was timely protested on June 14, 2012 by the Division of Ratepayer Advocates (DRA). PG&E responded to DRA's protest on June 21, 2012.

DRA recommends that the Commission deny cost recovery for the Bottle Rock PPA on the following grounds: 1) uncompetitive price, 2) elimination of all accrued non-performance damages, 3) lack of RPS portfolio need, 4) concurrence with the Independent Evaluator which expresses concern that Bottle Rock risks returning for another price amendment, and 5) disagreement with approval of a project for the sole benefit of supporting economic development.

PG&E believes the Bottle Rock project provides benefits beyond the sole benefit of supporting economic development which justifies the higher contract price. In its reply to DRA's protest, PG&E suggests that the Bottle Rock project offers additional attributes including the following: 1) it is an existing and operating in-state facility with local area reliability benefits, 2) does not require any additional transmission network upgrades, 3) does not present integration issues that are associated with intermittent resources, and 4) is required to spend at least a specified amount of capital in order to improve plant production in the long term. PG&E also states that the Bottle Rock project would provide generation that can qualify as excess procurement in near term compliance periods, allowing PG&E to meet its RPS portfolio needs in later compliance periods. Lastly, PG&E disagrees that Bottle Rock is at risk of returning for another price amendment and states that the amended and restated contract has provisions that require Bottle Rock to upgrade the facility to increase generation and the price of the PPA is adequate to allow Bottle Rock to successfully receive financing to complete the upgrades.

## **DISCUSSION**

### **PG&E requests Commission approval of an amended and restated renewable energy contract between PG&E and Bottle Rock Power LLC.**

Bottle Rock operates an existing geothermal facility in The Geysers region of Lake County, CA that first began operation in 1985 under the Department of Water Resources (DWR). DWR suspended operations in 1990 due to lower than expected generation and sold the power station to US Renewables Group in 2005 who then sold a 50% interest to Riverstone Holdings in 2006.

Under new ownership, Bottle Rock signed a purchase power agreement (PPA) with PG&E in 2006 resulting from PG&E's 2005 RPS Solicitation for a minimum of 14.45 megawatts (MW) of capacity for a term of 10 years with a commercial operation date (COD) of July 31, 2007. Due to performance issues, Bottle Rock and PG&E amended the PPA in October 2007 to extend the COD to October 1, 2007, decrease the minimum capacity from 14.45 MW to 10 MW, set a milestone of December 31, 2007 to achieve a capacity of 14.45 MW, and a milestone of December 31, 2008 to reach 16.15 MW. The CPUC approved the amended PPA in December 2007 and the project achieved COD in October 2007.

In 2010, Bottle Rock and PG&E re-negotiated the amended PPA for a second time due to further performance issues and cost increases. The amended and restated PPA increased the contract price for deliveries above the required minimum deliveries, increased the project development security and delivery term security, lowered the minimum contract capacity, and increased the delivery term from 10 years to 15 years. The CPUC approved the amended and restated PPA in January 2011.

Bottle Rock has not been able to satisfy the minimum quantity requirements of the second amended and restated PPA. Therefore, Bottle Rock has not been able to receive higher payments for deliveries above the required minimum deliveries. PG&E states in AL 4048-E that Bottle Rock was unable to raise the additional capital necessary to expand the steam field and increase generation required in the second amended and restated PPA.

Bottle Rock approached PG&E in June 2011 to amend the already twice-amended PPA to increase the price of the PPA approximately 56%, which would allow Bottle Rock to obtain financing for steam field expansion and to support the facility's continued operation. Bottle Rock has also requested that PG&E waive significant non-performance damages owed to PG&E under the third amended and restated PPA. Finally, Bottle Rock indicated that if a price increase was not approved by the CPUC, it would shut the plant down.

On May 25, 2012 PG&E filed AL 4048-E requesting CPUC approval of a third amended and restated PPA with the following adjustments:

1. Increase the contract price by approximately 56%;
2. Waive significant non-performance damages owed to PG&E;
3. Increase the contract term to 20 years;
4. Reduce the maximum capacity from 55 MW to 25 MW, and require that the facility reach 15 MW by early 2018 or PG&E has a right to terminate the contract;
5. Increase the delivery term security;
6. Maintain a certain employment level;
7. Invest a minimum amount in steam field expansion and improvement of the Project.

**Energy Division Evaluated the Bottle Rock PPA on these Grounds:**

- Consistency with Least-Cost Best-Fit Requirements
- RPS Portfolio Need
- Price Reasonableness and Value
- Independent Evaluator (IE) Report

**Consistency with PG&E’s Least-Cost Best-Fit Requirements**

The LCBF decision directs the utilities to use certain criteria in their bid ranking.<sup>4</sup> The decision offers guidance regarding the process by which the utility ranks bids in order to select or “shortlist” the bids with which it will commence negotiations. PG&E’s bid evaluation includes a quantitative and qualitative analysis, as well as each proposal’s absolute value to PG&E’s customers and relative value in comparison to other proposals. The basic components of PG&E’s LCBF evaluation and selection criteria and process for RPS contracts were established in the Commission’s LCBF Decisions D.03-06-071 and D.04-07-029.

Consistent with these decisions, the three main steps undertaken by PG&E are: (1) determination of market value of bid; (2) calculation of transmission adders

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<sup>4</sup> See D.04-07-029

and integration costs; (3) evaluation of portfolio fit, and; 4) consideration of non-price factors. PG&E applied these criteria to the proposals received in the 2011 solicitation in order to establish a short-list of proposals from bidders with whom PG&E would engage in contract discussions. PG&E's 2011 RPS solicitation was the most recent solicitation at the time that the Bottle Rock PPA was negotiated and executed.

PG&E examined the reasonableness of the Bottle Rock PPA using the same LCBF evaluation methodology that it used for RPS offers received for the 2011 RPS solicitation. Although the Bottle Rock PPA was negotiated bilaterally, PG&E determined that the agreements were reasonable and compared favorably to proposals that PG&E received in its 2011 solicitation and to other bilateral offers negotiated around the same time. PG&E stated in AL 4048-E that while the economics of the Bottle Rock project compare unfavorably to its 2011 RPS Solicitation short-list, the non-price factors and improved portfolio fit are favorable.

PG&E fails to adequately disclose what the “non-price factors” are in the redacted copy of AL 4048-E that warrant an approximate 56% increase in the price of the PPA and the forgiveness of significant accrued non-performance damages, in lieu of selecting one of the many other projects that provide RPS-eligible generation at a significantly better price and value. A motivation for amending and restating the PPA, based on comments that PG&E filed in response to DRA's protest, is to incentivize Bottle Rock to keep the facility operating to maintain jobs in an economically distressed area. However, other existing geothermal projects that are better priced and provide more value have the same potential to maintain job creation in distressed communities in California. Furthermore, PG&E does not adequately justify why the Bottle Rock project provides an improved portfolio fit. To the contrary, in PG&E's 2012 Renewable Energy Procurement Plan dated May 23, 2012, PG&E's own analysis indicates that it does not have a need for additional RPS-eligible generation until the third compliance period under its Current Expected Need Scenario. See Confidential Appendix A for a discussion on portfolio fit.

PG&E failed to adequately examine the reasonableness of the Bottle Rock PPA utilizing its LCBF methodology during the time the PPA was being negotiated and executed.

### **RPS Portfolio Need**

The California RPS Program was established by Senate Bill (SB) 1078 and has been recently modified by SB 2 (1X), which became effective on December 10, 2011. SB 2 (1X) made significant changes to the RPS Program.<sup>5</sup> SB2 (1X) established new RPS procurement targets such that retail sellers must

procure "...from January 1, 2011 to December 31, 2013...an average of 20 percent of retail sales...25 percent of retail sales by December 31, 2016, and 33 percent of retail sales by December 31, 2020."<sup>6</sup>

The Commission disagrees with PG&E and does not find that generation from the Bottle Rock project fits PG&E's portfolio need. PG&E has chosen to procure an above-market resource in the near-term in order to bank it for future need when the generation is actually needed. This strategy comes at an unnecessarily high cost to ratepayers particularly when less expensive and higher valued projects are currently available to fill PG&E's portfolio beginning in the third compliance period.

In light of recent information<sup>7</sup> provided to the Commission about PG&E's current net short position relative to these new RPS targets, the details of which are contained in Confidential Appendix A, the Commission finds that generation from the Bottle Rock project does not adequately fit the portfolio need requirements of PG&E's RPS portfolio.

### **Price Reasonableness and Value**

PG&E executed the third amended and restated PPA in early 2012, after the shortlist results from PG&E's 2011 RPS Solicitation were submitted to the Commission. Therefore, the proper cohorts to measure the Bottle Rock contract against are similar projects offered to PG&E resulting from the 2011 RPS Solicitation.

PG&E shortlisted four geothermal projects in PG&E's 2011 RPS Solicitation for a total of 291 MW, which all provide significantly better value to PG&E's ratepayers than the Bottle Rock PPA. Furthermore, two of these geothermal projects are currently online, better priced with much better value than Bottle Rock. Lastly, the net market value of Bottle Rock compares unfavorably to 26 out of 27 RPS-eligible PPAs that PG&E executed in all of 2011, highlighting the disparity between the net market value of the Bottle Rock project compared to the net market value of nearly all other projects PG&E executed in a similar timeframe. See Confidential Appendix A for a discussion on price reasonableness and value.

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<sup>5</sup> The Commission opened Rulemaking (R.) 11-05-005 (May 5, 2011) to implement the new RPS law.

<sup>6</sup> See § 399.15(b)(2)(B), SB 2 (1X)

<sup>7</sup> See, Pacific Gas and Electric Company's (U 39-E) 2012 Renewable Energy Procurement Plan, Appendix 1: Quantitative Information, "Current Expected Need Scenario" (May 23, 2012)

The Commission does not agree with PG&E that the higher price of the Bottle Rock PPA is justified based on the stated qualitative benefits of the Bottle Rock facility. Similar projects with the same qualitative benefits that are lower in price and higher in value were available at the time that the contract was amended.

The price and net market value of the Bottle Rock contract do not compare favorably against similar contracts that were offered to PG&E at the time the Bottle Rock PPA was being negotiated and executed.

The CPUC denies cost recovery for the third amended and restated PPA between PG&E and Bottle Rock. PG&E did not adequately compare the Bottle Rock PPA to other less costly and more valuable projects that existed at the time the PPA was negotiated and signed.

### **Independent Evaluator Report (IE)**

PG&E retained Merrimack Energy Group as the Independent Evaluator for the Bottle Rock PPA. The IE states in its report:

“The IE has reservations about the long term viability of the Bottle Rock project and the ability of the revised pricing in this amended and restated PPA to support the long term viability of the project. As a result, the IE feels it is possible that Bottle Rock could be back again looking for another amendment to the contract and a further price increase. Furthermore, the pricing in the contract is not competitive when compared to recent market information. Based on the contract pricing the project would not have been selected for the short list from the 2011 RPS solicitation. All these factors would lead to a recommendation not to approve the PPA.”

The Commission concurs with DRA and the Independent Evaluator and finds that the historical performance of the Bottle Rock facility, under its current ownership, is questionable and sets a poor benchmark for future performance, increasing the likelihood that Bottle Rock will need to request another price amendment in the future.

### **CONFIDENTIAL INFORMATION**

The Commission, in implementing Public Utilities Code Section 454.5(g), has determined in D.06-06-066, as modified by D.07-05-032, that certain material submitted to the Commission as confidential should be kept confidential to ensure that market sensitive data does not influence the behavior of bidders in future RPS solicitations. D.06-06-066 adopted a time limit on the confidentiality of specific terms in RPS contracts. Such information, including price, is



confidential for three years from the date the contract states that energy deliveries begin, except contracts between IOUs and their affiliates, which are public.

The confidential appendices, marked “[REDACTED]” in the public copy of this resolution, as well as the confidential portions of the advice letter, should remain confidential at this time.

### **COMMENTS**

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

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

### **FINDINGS AND CONCLUSIONS**

1. PG&E failed to adequately examine the reasonableness of the Bottle Rock PPA utilizing its LCBF methodology during the time the PPA was being negotiated and executed.
2. Generation from the Bottle Rock project does not adequately fit the portfolio need requirements of PG&E's RPS portfolio.
3. The price and net market value of the Bottle Rock PPA does not compare favorably against similar contracts that were offered to PG&E at the time the Bottle Rock PPA was being negotiated and executed.
4. PG&E's request for cost recovery for the third amended and restated PPA between PG&E and Bottle Rock should be denied. PG&E did not adequately compare the Bottle Rock PPA to other less costly and more valuable projects that existed at the time the PPA was negotiated and signed.
5. PG&E's Advice Letter 4048-E was timely protested on June 14, 2012 by the Division of Ratepayer Advocates. PG&E responded to DRA's protest on June 21, 2012.
6. The protest of Advice Letter 4048-E by the Division of Ratepayer Advocates is accepted because the Commission concurs that the amended and restated PPA is not price competitive, PG&E does not have

need for the project, and Bottle Rock is at risk of requesting another price amendment in the future.

7. The confidential appendices, marked “[REDACTED]” in the public copy of this resolution, as well as the confidential portions of the advice letter, should remain confidential at this time.
8. The amended and restated Bottle Rock PPA should be rejected in its entirety.

**THEREFORE IT IS ORDERED THAT:**

1. The power purchase agreement between Pacific Gas and Electric Company and Bottle Rock LLC as proposed in Advice Letter 4048-E is denied.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on September 13, 2012; the following Commissioners voting favorably thereon:

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Paul Clanon  
Executive Director

## Confidential Appendix A

### Price Reasonableness, Value and Portfolio Need

[REDACTED]

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## Confidential Appendix B

### Independent Evaluator Conclusions and Recommendations

[REDACTED]

## Confidential Appendix C

### Amended and Restated Contract Terms and Conditions

[REDACTED]

**PUBLIC UTILITIES COMMISSION**505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298

Agenda ID # 11534

August 14, 2012

Draft Resolution E-4521 [OPTION A]  
September 13, 2012 Commission

Meeting

TO: PARTIES TO DRAFT RESOLUTION E-4521 [OPTION A]  
Service List: R.11.05.005

Enclosed is Draft Resolution E-4521 [OPTION A] of the Energy Division addressing Pacific Gas and Electric Company's advice letter (AL) 4048-E. It will be on the agenda at the September 13, 2012 Commission meeting. The Commission may then vote on this Draft Resolution or it may postpone a vote until later.

When the Commission votes on a Draft Resolution, it may adopt all or part of it as written, amend, modify or set it aside and prepare a different Resolution. Only when the Commission acts does the Resolution become binding on the parties.

Parties may submit comments on the Draft Resolution no later than 20 days of this draft, Thursday, August 30, 2012.

An original and two copies of the comments, with a certificate of service, should be submitted to:

Energy Division  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102  
[EDTariffUnit@cpuc.ca.gov](mailto:EDTariffUnit@cpuc.ca.gov)

A copy of the comments should be submitted to:

Jason Simon  
Energy Division  
[Jason.Simon@cpuc.ca.gov](mailto:Jason.Simon@cpuc.ca.gov)

Paul Douglas  
Energy Division  
[Paul.Douglas@cpuc.ca.gov](mailto:Paul.Douglas@cpuc.ca.gov)

Those submitting comments must serve a copy of their comments on 1) the entire service list attached to the Draft Resolution, 2) all Commissioners, and 3) the Director of the Energy Division, the Chief Administrative Law Judge and the General Counsel, on the same date that the comments are submitted to the Energy Division.

Comments may be submitted electronically.

Comments shall be limited to five pages in length plus a subject index listing the recommended changes to the Draft Resolution and an appendix setting forth the proposed findings and ordering paragraphs.

Comments shall focus on factual, legal or technical errors in the proposed Draft Resolution. Comments that merely reargue positions taken in the advice letter or protests will be accorded no weight and are not to be submitted.

*/s/ Paul Douglas*  
Paul Douglas  
Energy Division Manager

Enclosure:

Certificate of Service

## CERTIFICATE OF SERVICE

I certify that I have by mail this day served a true copy of Draft Resolution E-4521 on all parties in these filings or their attorneys as shown on the attached list.

Dated August 14, 2012 at San Francisco, California.

/s/ Julia Tom

Julia Tom

## NOTICE

Parties should notify the Energy Division, Public Utilities Commission, 505 Van Ness Avenue, Room 4002 San Francisco, CA 94102, of any change of address to insure that they continue to receive documents. You must indicate the Resolution number on the service list on which your name appears.