

PUBLIC UTILITIES COMMISSION

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April 2, 2014

Advice Letter 4253-E

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

Subject: Approval of PG&E's Proposed Amendment of its Power Purchase Agreement with Chevron U.S.A., Inc. to Include the Cymric Demonstration Project

Dear Mr. Cherry:

Advice Letter 4253-E is effective October 3, 2013 per Resolution E-4627.

Sincerely,

A handwritten signature in cursive script that reads "Edward F. Randolph".

Edward F. Randolph, Director
Energy Division

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ENERGY DIVISION

RESOLUTION E-4627
March 13, 2014

REDACTED
RESOLUTION

Resolution E-4627. Pacific Gas and Electric Company requests the California Public Utilities Commission to approve the proposed Fifth Amendment to the Standard Offer 1 As- delivered Capacity and Energy Power Purchase Agreement between Chevron U.S.A., Inc. and PG&E for deliveries from a 950 kW bottoming cycle demonstration project that will be added to the existing facility located in the Cymric oil field.

PROPOSED OUTCOME: This Resolution approves, without modification, the agreement between Pacific Gas and Electric and Chevron U.S.A., Inc. pursuant to the terms of the Qualifying Facility and Combined Heat and Power Program Settlement Agreement.

SAFETY CONSIDERATIONS: This project is a Demonstration Project that is being added onto an existing and operational facility, there are no incremental safety implications associated with this contract beyond the status quo.

ESTIMATED COST: The facility will be paid SRAC pricing per the Qualifying Facility and Combined Heat and Power Program Settlement Agreement.

By Advice Letter 4253-E Filed on July 16, 2013 as amended by Advice 4253-E-A filed on September 16, 2013.

SUMMARY

Pacific Gas and Electric Company (“PG&E”) seeks California Public Utilities Commission (“Commission” or “CPUC”) approval of an amendment to an as delivered capacity and an Energy Power Purchase Agreement (“PPA”), which PG&E has executed with Chevron U.S.A., Inc. (“Chevron”) for deliveries from

a new demonstration 950 kilowatt (“kW”) cogeneration facility (“Cymric”) located in Cymric oil field near Bakersfield, California. This Resolution approves, without modification, the fifth amendment (“Amendment”) to the Standard Offer 1 (“SO1”) As-delivered Capacity and Energy Power Purchase Agreement (“PPA”) between Chevron U.S.A., Inc. and PG&E.

On July 16, 2013, PG&E filed Advice Letter (“AL”) 4253-E requesting Commission approval of an amendment to an existing as-delivered capacity and energy PPA with Chevron’s Cymric cogeneration facility. The Amendment enables PG&E to procure an additional 950 kW of nameplate capacity from Chevron’s existing Cymric cogeneration facility through the addition of a bottoming-cycle waste heat recovery generator that will increase the electrical output of the plant with no additional fuel use.

The incremental CHP procurement of 950 kW would count towards the CHP megawatt target, and PG&E would be able to claim a greenhouse gas (“GHG”) emissions reduction of 2,114 metric tons per year under the terms of the QF/CHP Settlement. PG&E proposes to recover the cost of procurement from all benefiting customers pursuant to Section 13.1.2.2 of the QF/CHP Settlement Agreement Term Sheet (“Term Sheet”).

Advice 4253-E requested that the Commission find it reasonable for PG&E to recover its costs under the Amended PPA through its Energy Resource Recovery Account. However, on September 16, 2013, PG&E revised Advice 4253-E by submitting supplemental filing AL 4253-E-A, which specifies that cost recovery of the PPA shall conform with the methodology adopted in the QF/CHP Settlement Agreement adopted in Decision (“D.”) 10-12-035. In recognition that this CHP procurement is required by D. 10-12-035, the Commission authorizes PG&E to allocate the net capacity costs and associated RA benefits with new capacity to benefiting customers. Specifically PG&E will recover net capacity cost of CHP procurement from benefiting customers through the New System Generation Balancing Account (“NSGBA”).

The existing units at the Chevron Cymric facility have a total nameplate capacity of 21.04 MW. The Demonstration Project will add 0.95 MW of capacity, resulting in a new total nameplate capacity of 21.99 MW. The Demonstration Project is a bottoming-cycle, waste heat recovery facility with a nameplate capacity of 950 kW unique to enhanced oil recovery (“EOR”) cogeneration operations. It is expected to provide incremental combustion-free generation from the existing EOR steam host. This project enables Chevron to study the technical and operating feasibility of bottoming-cycle CHP technology in EOR applications,

thereby contributing to potential future GHG reductions from electric power sources within California.

As acknowledged by PG&E, the term of the PPA, which is longer than five years, would ordinarily require PG&E to seek approval by an application to the Commission. However, the Proposed Amendment provides potentially significant public benefits by advancing the technological knowledge base for California's CHP industry. Given these benefits, PG&E proactively obtained a Qualifying Facility restructuring reasonableness letter (QFRRL) from the Commission's Office of Ratepayer Advocates ("ORA") that does not oppose the Proposed Amendment.

As explained in detail in the later sections of this resolution, due to the Restructuring Advice Letter Filing ("RALF") process, the Cymric Demonstration Project will be added on to the existing Cymric PPA and as a result the Demonstration Project being approved in this resolution does not have an expiration date.

The pricing, terms, and conditions were executed according to Section 4.3.3 of the Settlement Term Sheet. Staff reviewed the pricing, terms and conditions of the contract and found them just and reasonable per the QF/CHP Settlement agreement. Further discussion on the confidential pricing, terms, and conditions of the Chevron Cymric Demonstration Project PPA can be found in the confidential appendix of this resolution.

Staff finds that the Cymric Agreement contributes to the goals of the QF/CHP Settlement through reasonable terms and conditions and merits Commission approval.

BACKGROUND

On December 16, 2010, the Commission adopted the Qualifying Facility and Combined Heat and Power Program Settlement Agreement ("Settlement") with the issuance of D.10-12-035. The Settlement resolves a number of longstanding issues regarding the contractual obligations and procurement options for facilities operating under legacy and new qualifying facility ("QF") contracts.

The QF/CHP Settlement establishes Megawatt ("MW") procurement targets and Greenhouse Gas ("GHG") Emissions Reduction Targets the investor-owned utilities ("IOUs") are required to meet by entering into contracts with eligible CHP Facilities, as defined in the Settlement. Pursuant to D.10-12-035, the three large electric IOUs must procure a minimum of 3,000 MW of CHP and reduce

GHG emissions consistent with the California Air Resources Board ("CARB") Scoping Plan, currently set at 4.8 million metric tonnes ("MMT") by the end of 2020.

Among other things, D.10-12-035 updates methodologies and formulas for calculating the Short Run Avoided Cost ("SRAC") energy price for QFs to be used in the Standard Contract for QFs with a Power Rating that is Less than or Equal to 20MW (the "QF Standard Offer Contract"), Transition PPAs, amendments to existing QF PPAs, and Optional As-Available PPAs. The SRAC methodology under the QF/CHP Settlement includes:

- (1) By January 1, 2015, transitioning SRAC pricing from a formula that is based in part on administratively-determined heat rates to a formula that solely uses market heat rates;
- (2) IOU-specific time-of-use ("TOU") factors to be applied to energy prices to encourage energy deliveries during the times when the energy is most needed by customers;
- (3) A locational adjustment based on California Independent System Operator ("CAISO") nodal prices; and,
- (4) Pricing options based on whether a cap-and-trade program or other form of GHG regulation is developed in California or nationally.

In addition, the Commission defined several procurement processes for the IOUs within the Settlement. Per Section 4.3, the three IOUs have the procurement option to bilaterally negotiate power purchase agreements with potential sellers. The results from such bilaterally negotiated contracts are subject to CPUC deliberation and will be disposed of with CPUC resolutions, voted out by the five CPUC commissioners on pre-determined date at a CPUC Commission meeting. Section 4.3.2 of the term sheet requires the use of independent evaluators for any negotiations between an IOU and its affiliate and may be used, at the election of either the Buyer or the Seller, in other negotiations.

On July 13, 1982 and July 22, 1982, Seller and Buyer, respectively, executed the Standard Offer No. 1 Power Purchase Agreement entitled "As-Delivered Capacity and Energy Power Purchase Agreement Between Chevron U.S.A. Inc. and Pacific Gas and Electric Company , the Chevron Cymric Facility ("the original Cymric PPA") for up to 10,000 kW of as-delivered capacity and surplus energy output from a 10,000 kW generator nameplate, natural gas-fueled cogeneration Facility located at Section 36, Township 29 South, Range 21 East, Mount Diablo Base and Meridian, Kern County, California. The original Cymric

PPA was to remain in effect for two years from the date of execution. After four amendments that took place in 1984, 1986, 1987 and 2012 respectively the original Cymric PPA is undergoing the fifth amendment ("agreement") which is before the Commission for deliberation and resolution.

NOTICE

Notice of AL 4253-E and AL 4253-E-A was made by publication in the Commission's Daily Calendar. Pacific Gas and Electric states that a copy of the Advice Letter was mailed and distributed in accordance with Section IV of General Order 96-B. Both the Advice Letter 4253-E and the amendment to Advice Letter 4253-E-A was served to the service list of R.12-03-014.

PROTESTS

Advice Letter 4253-E was timely protested by the Marin Energy Authority ("MEA") on August 5, 2013. PG&E filed a response to MEA's protests on August 12, 2013. MEA's protested PG&E's Advice 4253-E for three reasons: (1) MEA suggested that PG&E file an application instead of an advice letter due to the complexity the Cymric agreement entails; (2) the QFRRL is an antiquated mechanism that does not reflect the current retail Energy Markets and the present regulatory environment; (3) Further evaluation of costs and benefits attributable to the proposed amendments must be considered, and additional issues with the CAM treatment of the Cymric amendment.

MEA suggested that PG&E file an application instead of an advice letter due to the complexity the Cymric agreement entails

In its protest, MEA explained that PG&E proposed to expand the nameplate capacity of the existing Cymric facility that is on an evergreen contract and pointed out that there was no specified end date to the agreement. MEA also commented on PG&E's proposal for shifting the cost recovery of the agreement from Competition Transition Charge ("CTC") to PG&E's Energy Resource Recover Account ("ERRA"), while requesting Cost Allocation Mechanism ("CAM") treatment under the QF/CHP Settlement.

In its reply comments PG&E claimed that none of the terms of the Fifth Amendment criticized by MEA were relevant to the availability of the RALF process and that the RALF process, as long as supported or not opposed by ORA, allowed PG&E to submit an advice letter for the Commission to deliberate

upon. PG&E also correctly stated that the Energy Division did not exercise its discretion to advise PG&E that the contract amendment was too complex and should be filed as an application. Additionally, PG&E reiterated that the RALF process was the proper procedure for seeking Commission approval of the Fifth Amendment to the Cymric PPA due to its clear benefits to PG&E's customers. PG&E also stated that the marginal increase to a legacy QF PPA nameplate (950 kilowatts), while significant, was not complex enough to mandate using the application process.

The RALF process allows an IOU to seek expedited Commission review and approval of beneficial restructured QF contracts. In Decision D.98-12-066, the Commission adopted the RALF process, whereby the IOUs could submit a PPA amendment for Commission approval by advice letter, instead of by application, conditioned upon the review and statement of support or neutrality of the Commission's ratepayer advocacy staff. In D.99-02-085, the Commission confirmed that a RALF advice letter must be supported by a staff letter stating that the proposed amendment is reasonable and that payments under the restructured contract should be recovered in rates, subject only to the utility's prudent administration of the contract.

As required by the RALF procedure, PG&E requested the ORA provide a QFRRL. ORA Program Manager provided a letter dated July 11, 2013, which finds the Proposed Amendment to be consistent with Commission guidelines on restructuring QF contracts and states: "ORA has reviewed the amendment and has verified the benefit to PG&E's customers. As a result of this analysis and review, ORA does not oppose the approval of the proposed Amendment 5 between PG&E and Chevron, USA."

Understanding MEA's concerns with regards to the agreement's complexities, staff agrees with PG&E that while the agreement can be construed as being complex it does not inhibit the Energy Division from resolving the advice letter through a resolution instead of a Commission decision. As detailed in the confidential appendix of this resolution, the pricing for this as-available CHP resource is competitive, is on par with the industry standard and does not have a negative impact on the ratepayers. Although not a determining factor, the small size (<1MW) of the as-available facility also benefits from the disposition with a Commission resolution rather than a Commission decision. Furthermore, as stated above, PG&E successfully obtained a QFFRL letter from ORA and therefore can submit this agreement for Energy Division review via an advice letter instead of an application. Because of the reasonable, competitive pricing of

the as-available Demonstration Project that is being added onto the original Cymric SO1 PPA, staff does not share MEA's concern with regards to the length of the contract. The original Cymric PPA is an evergreen PPA that will be operational for as long as the original PPA is not terminated by Chevron and plant operations continue.

MEA states that the QFRRL is an antiquated mechanism that does not reflect the current retail Energy Markets and the present regulatory environment.

MEA claims that due to the changes in the retail energy market and regulatory environment, the RALF process is antiquated and no longer appropriate. Specifically MEA argues that the QFFRL is an archaic system as it provides high cost of service and perpetuates the amendments of QF agreement through Advice Letter filings instead of streamlining the restructuring through application filings. MEA also commented that the ORA is no longer the only party protesting the QF contract amendments and that the competitors of the IOU's such as Community Choice Aggregations ("CCAs") and Direct Access ("DA") providers complicate the procurement mechanism due to the newly enacted statutes. For these reasons MEA asks that the Commission find it inappropriate to review PG&E's proposed amendments and reject the advice letter filing.

PGE claims that MEA misconstrued the Commission's intention in the initial RALF Decision. PG&E explained that the Commission did not premise eligibility for the RALF process on the assumption that the transaction would not be protested by parties other than ORA, but rather that the Commission would rely on its advocacy staff to provide a benchmark for determining whether to require an application or use a streamlined advice letter process for approval.

The RALF process is an ongoing mechanism as a result of D.98-12-066, which adopted the RALF process and D.99-02-085, which requires the QFRRL. While staff recognizes that ORA is not the only party protesting the QF contract amendments, MEA being a CCA was able to file comments to PG&E Advice Letter 4253-E and staff reviewed each of MEA's concerns and deliberated on them. Because PG&E consulted with ORA and received a QFRRL, and since the Commission has not modified or rescinded its orders authoring the utilities to use the RALF process, the Commission is bound by the previous decisions and law to deliberate the outcome of amendments like the Cymric Demonstration Project. For the reasons explained above, the Commission does not find the

advice letter filing inappropriate and approves the agreement without modification.

MEA argues that further evaluation of costs and benefits attributable to the proposed amendments must be considered and additional issues with the CAM treatment of the Cymric amendment.

MEA stated that all benefits relating to the proposed Demonstration Project are qualitative in nature and implies that there will be no changes in costs faced by ratepayers and therefore, questions the cost benefit analysis of this agreement. MEA further argues that by shifting the cost recovery for this agreement from the CTC to CAM, there will be substantial changes to how the costs of this project are allocated to both bundled and unbundled customers.

In its response PG&E pointed to its Advice letter filing and stated that the payments to the generator would increase to the extent that additional generation deliveries occur, but the actual amount of delivery cannot be predicted because the new bottoming cycle facility is essentially a small-scale prototype of a new energy recovery technology. PG&E distinguished that the energy deliveries would be purchased by PG&E's bundled customers. Unbundled customers, who do not purchase energy from PG&E, would not pay for any incremental deliveries under the Fifth Amendment. PG&E stated its additional interest in the amendment's contributions towards its MW and GHG reduction targets per the QF/CHP Settlement. PG&E also explained that the costs and the methodology for allocating the above-market cost of CHP procurement were determined by the decision approving the QF/CHP Settlement.

Staff reviewed the Cymric agreement as compared to other facilities procured through the QF/CHP Settlement and found the as-available price of the agreement to be just and reasonable. Staff would also note that in its amendment, PG&E would specifically procure new CHP capacity on behalf of Benefiting Customers (CCA's and DA's included) in accordance with the QF/CHP Settlement Agreement. The QF/CHP Settlement contemplated the IOU cost recovery for CHP Program PPA's such as the Cymric agreement in Section 13 of the Settlement Term Sheet, specifically section 13.1.2.2, which reads:

"13.1.2.2: If the CPUC determines that the IOUs should purchase CHP generation on behalf of DA and CCA customers, then the D.06-07-029 (and D.08-09-012 if necessary) shall be superseded to the extent necessary to

authorize the IOUs to recover the net capacity costs associated with the CHP Program from all bundled service, DA and CCA customers and all Departing Load Customers except for CHP Departing Load Customers, on a non-bypassable basis. The net capacity costs of the CHP Program shall be defined as the total costs paid by the IOU under the CHP Program less the value of the energy and any ancillary services supplied to the IOU under the CHP Program. No energy auction shall be required to value such energy and ancillary services. In exchange for paying a share of the net costs of the CHP Program, the LSEs serving DA and CCA customers will receive a pro-rata share of the RA credits procured via the CHP Program.”

In its Advice Letter 4253-E-A filing PG&E clarifies that it will continue to procure the existing Cymric capacity pursuant to the legacy SO1 PPA; any stranded procurement costs associated with the existing facility will continue to be collected under the Competition Transition Charge. Any above-market costs associated with the Cymric Addition, which is being procured under the CHP Program, will be recovered in accordance with Term Sheet Section 13.1.2.2.

DISCUSSION

On July 16, 2013, PG&E filed Advice Letter AL 4253-E which requests Commission approval of “Cymric Agreement” with Cymric Cogeneration Company.

Specifically, PG&E requests that the Commission:

1. Find that PG&E has met the requirements of the Restructuring Advice Letter Filing procedure adopted in D.98-12-066;
2. Find that PG&E discussed the Proposed Amendment with its Procurement Review Group pursuant to D.02-08-071;
3. Find PG&E’s execution of the Amendment to be reasonable and approve the Amendment in its entirety, including payments to be made by PG&E pursuant to the Amended PPA, subject only to the Commission’s review of the prudence of PG&E’s administration of the Amended PPA;
4. Find and conclude that it is reasonable for PG&E to recover its costs under the Amended PPA through its Energy Resource Recovery Account.

5. Find that the 950 kW associated with the Amendment apply towards PG&E's procurement target of 1,387 MW of CHP capacity in the Initial Program Period, as established by the QF/CHP Settlement.
6. Find that the 2,114 metric tonnes per year of GHG emissions reduction resulting from the Amendment counts towards PG&E's GHG emissions reduction target, as established by the QF/CHP Settlement.
7. Grant PG&E such other relief as the Commission finds to be just and reasonable.

Energy Division evaluated the Cymric as-available CHP agreement based on the following criteria:

- Consistency with D.10-12-035, which approved the QF/CHP Program Settlement including:
 - Consistency with Definition of CHP Facility and Qualifying Cogeneration Facility
 - Consistency with MW Counting Rules
 - Consistency with GHG Accounting Methodology
 - Consistency with Cost Recovery Requirements
- Need for Procurement
- Cost Reasonableness
- Public Safety
- Project Viability
- Consistency with the Emissions Performance Standard
- Consistency with D.02-08-071 and D.07-12-052, which respectively require Procurement Review Group ("PRG") participation

In considering these factors, Energy Division also considers the analysis and recommendations of an Independent Evaluator as is required for the CHP RFOs per Section 4.2.5.7 of the Settlement Term Sheet.¹

Consistency with D.10-12-035, which approved the QF/CHP Program Settlement:

On December 16, 2010, the Commission adopted the QF/CHP Program Settlement with the issuance of D.10-12-035. The Settlement, among other things, established methodologies and formulas for calculating SRAC to be used in the new QF Standard Offer Contract. Furthermore, the Settlement allows for bilaterally negotiated contracts with CHP QFs to determine energy and capacity payments mutually agreeable by relevant parties and subject to CPUC approval. Finally, the Settlement establishes a MW and GHG target for the IOUs. The IOUs must procure a minimum of 3,000 MW of CHP. The IOUs must reduce greenhouse gas emissions consistent with their allocation of the CARB Scoping Plan CHP Recommended Reduction Measure in proportion to the IOUs' and Energy Service Providers' / Community Choice Aggregators' current share of statewide retail electricity load. The QF/CHP Settlement became effective on November 23, 2011. The Settlement Term Sheet establishes criteria for contracts with Facilities including:

Consistency with Definition of CHP Facility and Qualifying Cogeneration Facility

The Settlement defines a "CHP Facility" as a facility that meets the definition of a qualifying cogeneration facility under 18 C.F.R. Section 292.205². FERC regulates the certification of Qualifying Facilities and registers a certified facility by granting it a Docket ID number. Per Section 4.2 of the Settlement Term Sheet, a CHP facility must meet the State and Federal definitions³ for cogeneration and the Emissions Performance Standard.

¹ Per Settlement Term Sheet 4.2.5.7: "Each IOU shall use an Independent Evaluator (IE) similar to that used in other IOU RFO processes. It is preferable that the IE have CHP expertise and financial modeling experience."

² Settlement Term Sheet Section 17: Glossary of Defined Terms, pp 65, 67, and 62.

³ State definition of cogeneration per Public Utilities Code Section 216.6. Federal definition of qualifying cogeneration per 18 C.F.R. §292.205 implementing PURPA.

As a cogeneration facility that meets the state's definition of a CHP facility and a self-certified QF with a QF Docket ID⁴, the Cymric Agreement is consistent with the states definition of a CHP Facility and meets the FERC Qualifying Cogeneration Facility certification requirement per the Settlement.

Consistency with Settlement MW Counting Rules

The Cymric Demonstration Project is a bottoming-cycle, waste heat recovery facility with a nameplate capacity of 950 kW. The Cymric agreement is eligible to be counted towards PG&E's MW targets as it meets the definition of a new "CHP Facility" that is being added to the larger existing Cymric CHP Facility. Term Sheet Section 2.2.2.2 directs PG&E to "enter into new PPAs with CHP Facilities" to procure 1,387 MW of CHP resources. Additionally, Term Sheet Section 4.3.1 states that bilaterally negotiated and executed CHP PPAs or Utility Prescheduled Facilities are part of the CHP Program procurement options. Furthermore, Term Sheet Section 4.6.1 states that as-available CHP facilities, such as the existing Cymric facility, are eligible for different procurement alternatives under the CHP Program, including bilaterally negotiated PPAs.

Per section 4.6.11.2.2 of the Settlement term sheet, the Cymric Agreement counts as a credit (.95 MWs) towards PG&E's MW procurement Target.

Consistency with Settlement Greenhouse Gas Accounting Methodology

Section 7 of the Settlement Term Sheet specifies accounting principles for all CHP facilities. Specifically, Term Sheet Section 7.3.1.2 states that the MW Expansion due to a physical change to an existing CHP Facility will count as a GHG Credit. The credit is measured as the difference between: a) the previous two calendar years of operational data compared to the Double Benchmark in place at the time of PPA execution and; b) the anticipated change in operations as identified in the PPA compared to the Double Benchmark. The formula results in a GHG credit in this case. The Cymric Demonstration Project GHG calculation methodology has been demonstrated in the semi-annual reporting template as required by the Settlement per Section 8 of the Term Sheet.

⁴ Cymric Cogen was self-certified as a QF in Federal Energy Regulatory Commission ("FERC") Docket No. 25C003 on October 15, 1982 and is an existing CHP QF.
<http://www.pge.com/includes/docs/pdfs/b2b/qualifyingfacilities/cogeneration/2013july.pdf>

As demonstrated in the Semi Annual CHP Report⁵ , per Section 7.3.1.2 of the Settlement term sheet the Cymric Agreement will count, 2,114 MTCO₂e towards PG&E's GHG Emissions Reduction Target.

Consistency with Cost Recovery Requirements

Ordering Paragraph 5 of D.10-12-035 orders the three large electric IOUs to recover the net capacity costs from CHP Program contracts on a non-bypassable basis from all bundled service, Direct Access ("DA") and Community Choice Aggregator ("CCA"), and Departing Load Customers ("DLC"), except for CHP DLC. With this authorization, the Settlement supersedes to the extent necessary D.06-07-029 and D.08-09-012, which established and modified the Cost Allocation Mechanism, respectively. Section 13.1.2.2 of the Settlement Term Sheet requires that the IOU recover CHP contract costs, net of the value of energy and ancillary services provided to the IOU. Non-IOU load-serving entities ("LSEs") receive Resource Adequacy ("RA") credits in proportion to the allocation of the net capacity costs that they pay.

On January 17, 2012, the Commission made effective PG&E AL 2645-E as of November 23, 2011, which authorized PG&E to revise its New System Generation Balancing Account to recover the net capacity costs of CHP contracts as it was directed by D.10-12-035. AL 2645-E determines the net capacity costs as the result of a debit and credit, where:⁶

- Debits include: Capacity and energy costs, including QF/CHP Program contracts that are eligible for net capacity cost recovery
- Credits include: Energy revenues for QF/CHP Program contracts that are eligible for net capacity cost recovery

PG&E is authorized to recover costs associated with the Cymric Agreement in accordance with Section 13.1.2.2 of the Settlement Term Sheet and AL 2645-E as amended by AL 2645-E-A, consistent with the directives of the QF/CHP Settlement.

⁵ Refer to Row 70 of the "Public Facility Data" tab in the October 16, 2013 CHP Semi Annual Public Reporting Template xls. (Link: <http://www.cpuc.ca.gov/PUC/energy/CHP/settlement.htm>)

⁶ PG&E Advice Letter 2645-E. <http://www.PG&E.com/NR/sc3/tm2/pdf/2645-E.pdf>.

Need for Procurement

PG&E's total MW procurement target for the CHP Program is 1,387 MW, with 1,025 MW allocated to Target B. PG&E's estimated 2020 GHG Emissions Reduction Target is 2.17 MMT. As of the October 1, 2013 CHP Semi-Annual Report, PG&E has executed⁷ 59 contracts proposed to contribute 1,025 MW and 1,118,885 MT of GHG reductions toward these goals.

Procurement Need to Meet the MW Target and GHG Emissions Reduction Target

Since the Cymric Demonstration Project will contribute .95 MWs towards PG&E's MW targets, it will help PG&E reach its CHP MW targets by the end of the initial program period. The procurement need for the Cymric agreement can be justified through its MW contributions to the Settlement targets. However, since the Cymric project will also provide 2,114 MTCO₂e reductions towards PG&E's GHG Emissions Reduction Target the procurement need can be further justified given PG&E's GHG target of 2.17 MMT of GHG emissions reductions to come from CHP procurement.

The need for procurement of the Cymric Demonstration Project can be justified through the projects contributions to PG&E MW and GHG reductions targets per the Settlement.

Cost Reasonableness

The Cymric Amendment was negotiated bilaterally between Chevron U.S.A., Inc. and PG&E. Since the Cymric Amendment is amending an evergreen contract it will not be limited to the maximum 7 to 12 year (existing CHP and new CHP respectively) purview of the Settlement. As a result staff reviewed the overall cost reasonableness of the plant with a "no end date" in mind. Still, staff found that the costs associated with the Cymric agreement are just and reasonable.

Through the Cymric Demonstration Project agreement, Chevron will study the unit's use of waste heat to determine the technical, economic, and commercial feasibility of using the Organic Rankine Cycle to harness the waste heat from the enhanced oil recovery process to generate electricity. The nameplate capacity of the demonstration unit is only 4 percent of the total nameplate capacity of the enlarged Cymric facility. The actual output of this experimental demonstration unit cannot be predicted with certainty. The Commission should confirm that

⁷ Some of the executed contracts have not yet been approved by the Commission.

the addition of a new CHP unit to an existing CHP Facility will count toward the IOU's CHP Program targets and thereby provide incentives for IOUs to facilitate the type of efficient CHP development needed to advance the use of CHP. Only the deliveries actually provided to the grid will be compensated, reducing the risk and complexity associated with this agreement.

A detailed explanation of the actual price of the contract can be seen in the confidential appendix of the confidential version of this resolution.

The costs associated with the Cymric Optional Amendment are just and reasonable.

Public Safety

California Public Utilities Code Section 451 requires that every public utility maintain adequate, efficient, just, and reasonable service, instrumentalities, equipment and facilities to ensure the safety, health, and comfort of the public.

The Cymric Agreement is between Pacific Gas and Electric Company and Chevron. The Commission's jurisdiction extends only over PG&E, not Chevron. Based on the information before the Commission and given that the Cymric Cogen is an existing facility and the new experimental project will be a Demonstration Project; the Cymric Agreement does not appear to result in any adverse safety impacts on the facilities or operations of PG&E.

Project Viability

The Chevron Cymric facility has consistently delivered energy and as-available capacity. The facility primarily serves on-site load. It is economically and operationally viable and is expected to remain so. The Demonstration Project is expected to validate the feasibility, costs, and benefits of the ORC technology for EOR applications. As an existing CHP facility in operation since 1980s, Cymric Cogen is a viable CHP facility. In its review of the agreement through the QFFRL, ORA also found the project was technically and economically viable.

Based on evaluations done by PG&E and ORA, the Cymric Demonstration Project is a viable CHP project.

Consistency with the Emissions Performance Standard

California Public Utilities Code Sections 8340 and 8341 require that the Commission consider emissions costs associated with new long-term (five years or greater) power contracts procured on behalf of California ratepayers.

D.07-01-039 adopted an interim Emissions Performance Standard (“EPS”) that establishes an emission rate for obligated facilities to levels no greater than the greenhouse gas emissions of a combined-cycle gas turbine power plant. Pursuant to Section 4.10.4.1 of the CHP Program Settlement Term Sheet, for PPAs greater than five years that are submitted to the CPUC in a Tier 2 or Tier 3 advice letter, the Commission must make a specific finding that the PPA is compliant with the EPS.

The EPS applies to all energy contracts that are at least five years in duration for baseload generation, which is defined as a power plant that is designed and intended to provide electricity at an Annualized Plant Capacity Factor (“APCF”) greater than 60 percent.

Under the Cymric Agreement, the Cymric facility will operate indefinitely starting on the Commission approval date of the Cymric agreement. Therefore this procurement qualifies as a “long term financial commitment” per D.07-01-039. The annualized plant capacity factor for the Cymric facility is expected to be significantly below the 60% baseload threshold. Therefore, the EPS does not apply to the Cymric Facility.

The EPS does not apply to the Cymric Demonstration Project, whose annualized plant capacity factor is expected to be significantly less than 60 percent.

Consistent with D.02-08-071 and D.07-12-052, PG&E’s Procurement Review Group (“PRG”) was notified of the CHP PPA.

PG&E presented information about the Proposed Cymric Amendment to its PRG on November 9, 2012, and described the terms of the final Proposed Amendment to the PRG on June 28, 2013, as required by D.02-08-071.

PG&E has complied with the Commission’s rules for involving the PRG groups.

Independent Evaluator Review

Since the Cymric Agreement was a bilateral amendment that did not change the term of the underlying PPA and was not a result of PG&E’s CHP RFO, PG&E did not use an Independent Evaluator.

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.

On March 5, 2014, PG&E filed comments on the draft resolution. Although PG&E agrees with the outcome of the Resolution, PG&E points out that the Resolution mischaracterizes the agreement as an optional as-available PPA, when in fact the agreement is an amendment to an existing Standard Offer 1 PPA. The Resolution has been amended to correct that mistake.

FINDINGS AND CONCLUSIONS

1. The Cymric Demonstration Project is a 950 kilowatt cogeneration facility located in the Cymric oil field near Bakersfield, California.
2. The Cymric Agreement is consistent with the state's definition of a CHP Facility and meets the FERC Qualifying Cogeneration Facility certification requirement per the Settlement.
3. Per section 4.6.11.2.2 of the Settlement term sheet, the Cymric Agreement counts as a credit (".95 MWs") towards PG&E's MW procurement Target.
4. Per Section 7.3.1.2 of the Settlement term sheet the Cymric Agreement will count, 2,114 MTCO_{2e} towards PG&E's GHG Emissions Reduction Target.
5. PG&E is authorized to recover costs associated with the Cymric Agreement in accordance with Section 13.1.2.2 of the Settlement Term Sheet and AL 2645-E as amended by AL 2645-E-A, consistent with the directives of the QF/CHP Settlement.
6. The need for procurement of the Cymric Demonstration Project can be justified through the project's contributions to PG&E MW and GHG reductions targets per the Settlement.
7. The costs associated with the Cymric Agreement are just and reasonable.
8. The Cymric Agreement does not appear to result in any adverse safety impacts on the facilities or operations of PG&E.
9. Based on evaluations done by PG&E, the Cymric Demonstration Project is a viable CHP project.

10. The Emissions Performance Standard does not apply to the Cymric Demonstration Project, whose annualized plant capacity factor is expected to be significantly less than 60 percent.
11. PG&E has complied with the Commission's rules for involving the PRG groups.
12. Rates and other terms and conditions set forth in the Cymric Agreement are reasonable.
13. PG&E met the requirements of the Restructuring Advice Letter Filing procedure adopted in D.98-12-066.
14. PG&E is authorized to recover its costs under the Cymric Amended PPA through its Energy Resource Recovery Account.

THEREFORE IT IS ORDERED THAT:

1. Pacific Gas and Electric Company's request through Advice Letter 4253-E, as amended by Advice Letter 4253-E-A, for approval of the Cymric Agreement with Chevron U.S.A., Inc. in its entirety, including payments to be made thereunder, is approved without modification.
2. Pacific Gas and Electric Company's costs under the Cymric Agreement shall be recovered through the net capacity cost of incremental procurement under the Amendment in accordance with Ordering Paragraph 5 of D.10-12-035 using a proportional allocation of new and legacy nameplate capacity of the generator and make appropriate entries to its New System Generation Balancing Account.

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 March 13, 2014; the following Commissioners voting favorably thereon:

/S/ PAUL CLANON
PAUL CLANON
Executive Director

MICHAEL R. PEEVEY
President
MICHEL PETER FLORIO
CATHERINE J.K. SANDOVAL
CARLA J. PETERMAN
MICHAEL PICKER
Commissioners

Confidential Appendix A

REDACTED

July 16, 2013

Advice 4253-E
(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

**Subject: Approval of Pacific Gas and Electric Company's Proposed
Amendment of its Power Purchase Agreement with Chevron U.S.A.,
Inc. to include the Cymric Demonstration Project**

Pacific Gas and Electric Company ("PG&E") requests the California Public Utilities Commission ("CPUC" or "Commission") to approve the proposed Fifth Amendment ("Proposed Amendment") to the Standard Offer 1 ("SO1") As-Delivered Capacity and Energy Power Purchase Agreement ("PPA") between Chevron U.S.A., Inc. ("Chevron") and PG&E.

The Proposed Amendment will increase the electrical output of the existing qualifying facility ("QF") generating facility with no additional Greenhouse Gas ("GHG") emissions by allowing Chevron to deliver additional as-available capacity and energy from a unique combined heat and power ("CHP") Demonstration Project. The Demonstration Project is a bottoming-cycle, waste heat recovery facility with a nameplate capacity of 950 kilowatts ("kW") unique to enhanced oil recovery ("EOR") cogeneration operations.¹ It is expected to provide incremental combustion-free generation from the existing EOR steam host. This project will enable Chevron to study the technical and operating feasibility of bottoming-cycle CHP technology in EOR applications, thereby contributing to potential future GHG reductions from electric power sources within California.

¹ "Bottoming cycle CHP" is a cogeneration technology in which the energy input to the system is first applied to a useful thermal energy application or process, and at least some of the reject heat emerging from the application or process is then used for power production, and as otherwise provided in 18 CFR Section 292, et seq. *Glossary of Defined Terms, CHP Program Settlement Agreement Term Sheet*, appended to the *QF and CHP Program Settlement Agreement*, adopted by CPUC Decision ("D.")10-12-035.

PG&E intends to count the Project's capacity and its associated GHG reductions towards PG&E's CHP procurement target that was adopted by Commission approval of the "CHP Program Settlement Agreement" ("QF/CHP Settlement").²

Because the term of the PPA, as modified by the Proposed Amendment, is longer than five years, PG&E would ordinarily be required to seek approval by an application to the Commission. However, the Proposed Amendment provides potentially significant public benefits by advancing the technological knowledge base for California's CHP industry. Given these benefits, PG&E has obtained a Qualifying Facility restructuring reasonableness letter (QFRRL) from the Commission's Division of Ratepayer Advocates ("DRA") that does not oppose the Proposed Amendment. The QFRRL and other supporting documents are submitted as part of this advice letter as listed below.

Accordingly, PG&E seeks CPUC approval and authorization for rate recovery of PG&E's costs incurred under the Proposed Amendment pursuant to the Restructuring Advice Letter Filing ("RALF") procedure adopted in Decision ("D.") 98-12-066 and refined in Resolution ("Res.") E-3848, Attachment 1.

I. Purpose

PG&E seeks a Commission resolution that approves the Proposed Amendment as reasonable and authorizes PG&E to recover in rates its payments under the amended PPA. PG&E presented information about the Proposed Amendment to its Procurement Review Group ("PRG") on November 9, 2012, and described the terms of the final Proposed Amendment to the PRG on June 28, 2013, as required by D.02-08-071³. The PRG did not object to the Proposed Amendment. As required by the RALF procedure established in D.98-12-066, PG&E sought a letter of support or no opposition from the DRA. In response to this request, Chloe Lukins, Program Manager with DRA, provided a letter dated July 11, 2013, to Trina Horner, PG&E's Vice President of Regulation and Rates, which finds the Amendment to be consistent with Commission guidelines on restructuring QF contracts. The letter explains that DRA reviewed the Proposed Amendment for technical and economic viability and for ratepayer benefits, in

² See, CPUC Decision ("D.")10-12-035.

³ "In order to ensure that interim procurement contracts entered into by the utilities are subject to sufficient and expedited review and pre-approval, we will require each utility to establish a PUC-authorized "Procurement Review Group" whose members, ... would have the right to consult with and review the details of 1) each utility's overall interim procurement strategy; 2) proposed procurement contracts with the utilities before any of the contracts are submitted to the PUC for expedited review, and 3) proposed procurement processes including but not limited to 'Requests for Offers' ('RFOs'), which result in contracts being entered into in compliance with the terms of the RFO2." D.02-08-071, pp. 24-25. See also Res. E-4389, March 10, 2011, Finding and Conclusion 7.

accordance with the RALF directives provided in D.88-10-032. DRA states, "DRA has reviewed the amendment and has verified the benefit to PG&E's customers. As a result of this analysis and review, DRA does not oppose the approval of the proposed Amendment 5 between PG&E and Chevron, USA." The DRA letter is attached as Confidential Appendix D. The Commission should accept the opinion of DRA that the Proposed Amendment provides benefits to ratepayers..

PG&E requests that the Commission issue a resolution no later than October 3, 2013, that:

1. Finds that PG&E has complied with requirements pursuant to the Restructuring Advice Letter Filing procedure adopted in D.98-12-066;
2. Finds that PG&E discussed the amendments to the PPA with its Procurement Review Group pursuant to D.02-08-071;
3. Approves the Proposed Amendment as reasonable and prudent;
4. Authorizes recovery of all payments under the PPA, as amended by the Proposed Amendment, in PG&E's Energy Resource Recovery Account ("ERRA") subject only to ongoing CPUC review with respect to the reasonableness of PG&E's administration of the PPA, as amended; and
5. Finds that PG&E may count procurement pursuant to the Proposed Amendment towards the PG&E MW and GHG reduction targets adopted by D.10-12-035.

II. **Background and Information Required by Resolution E-3848, Attachment 1.**

PG&E and Chevron are parties to an SO1 PPA for generation from Chevron's Cymric facility. The PPA was executed in July 1982 and was subsequently amended in July 1984, July 1986, November 1987, June 1995, May 2000, July 2000, August 2001, January 2002, and May 2012. The PPA has no expiration date. PG&E has collected the stranded costs of this PPA through the Competition Transition Charge ("CTC"). Upon Commission approval of increased deliveries under the Amendment, PG&E will remove the Amended PPA from its CTC portfolio.

Generally, PG&E is authorized by its Bundled Procurement Plan to seek Commission approval of amendments to QF contracts through an advice letter, so long as the remaining term of the amended PPA is less than five years.⁴ Because the PPA has no

⁴ See, "Conformed 2010 Long-Term Procurement Plan," PG&E Advice Letter No. 4026-E, approved October 15, 2012, Cal PUC Sheet No. 101.

expiration date, but for the Commission's RALF process, the amended PPA would not have been eligible for review and approval through the advice letter process.

The RALF process was developed by a series of Commission orders that sought to encourage QF contract restructuring with the objective of reducing total ratepayer costs.⁵ The RALF filing procedure, which was initially promulgated as Attachment 1 to D.98-12-066, was updated and re-published as Attachment 1 to Resolution E-3848. Under the RALF process, utility shareholders are allowed to receive an incentive payment of 10 percent of the estimated net ratepayer benefits resulting from a QF contract renegotiation. Here, the Proposed Amendment does not change any of PG&E's payments to Chevron under the Cymric PPA, and PG&E is not seeking a shareholder incentive payment. In the following sections, PG&E explains that the Amendment provides substantial qualitative benefits that justify the use of the RALF process and CPUC approval of the Amendment.

A. Identification of the QF, Location of the QF's Generating Facility, Brief Description of the Generating Facility Size, Type of Technology, and other Pertinent or Unique Characteristics.⁶

The Chevron Cymric facility is located in the Cymric oilfield near Bakersfield, California. The Cymric facility is designed to primarily serve oilfield loads. The facility currently consists of natural gas combustion turbine generating units, which provide a total contract capacity of 21.04 MW. The Demonstration Project is a 950 kW bottoming-cycle cogeneration unit that will use heat returned from the EOR process to generate additional power; no additional fossil fuel will be burned.

B. Ownership of the QF project and related companies, including affiliate relationships of the parties involved in the transaction, if any.⁷

Chevron will own the Demonstration Project and will continue to own the existing facilities. PG&E Corporation and its affiliate, Pacific Gas and Electric Company, have no ownership interest in any of the generating facilities and have never been affiliated with Chevron.

⁵ D.95-12-063, as modified by D.96-01-009 and D.98-12-066,

⁶ Per Res. E-3848 Attachment 1, Section 3.a.

⁷ Per Res. E-3848 Attachment 1, Section 3.b.

C. Detailed description of the historical operational performance of the project, including historical production and compliance with efficiency monitoring standards.

The historical operational performance of the project is presented in Confidential Appendix C.

D. Summary of the Proposed Amendment⁸

The Proposed Amendment accommodates a new 950 kW nameplate capacity generating facility within the Cymric facility, i.e., the Demonstration Project. To enable the Demonstration Project to operate within the Cymric facility, PG&E and Chevron have agreed to add the incremental 950 kW generating unit to the nameplate capacity of the facility.

E. Summary of the customer benefits⁹

The Proposed Amendment facilitates the development and demonstration of a unique bottoming-cycle, waste heat recovery cogeneration facility.

The development of cogeneration technology leading to the more efficient use of natural gas is a primary goal of Section 372 (a) of the California Public Utilities Code.¹⁰ One of the purposes of the Demonstration Project is to validate the operational and technical feasibility of using steam that is returned from the oilfield at the end of the EOR process to generate electricity. If validated for use in EOR applications, there may be potential to further deploy this technology in other industrial waste heat recovery applications in California. This relatively small-scale pilot project may become a prototype for extracting more energy from fossil fuel that is already being used, with no incremental GHG emissions. Overall, the Proposed Amendment supports the more efficient use of natural gas and increased efficiency of cogeneration technology.

The Demonstration Project will test the suitability of Organic Rankine Cycle (“ORC”) technology for EOR applications. The ORC technology harnesses waste-heat (low pressure steam, and non-condensable gas) from the end of the EOR process that is normally cooled using electrically-powered equipment. The heat from the EOR production fluids is transferred to a binary fluid used to drive a turbine and produce electricity. The efficiency gains result from the incremental power generation and the

⁸ Per Res. E-3848 Attachment 1, Section 3.d

⁹ Per Res. E-3848 Attachment 1, Section 3.e.

¹⁰ Section 372 subsection (a) states: “It is the policy of the state to encourage and support the development of cogeneration as an efficient, environmentally beneficial, competitive energy resource that will enhance the reliability of local generation supply, and promote local business growth.”

reduction in the electrical power previously required to cool the fluid. Although this technology could apply to other waste-heat streams, such as refineries, the demonstration at Cymric will determine its feasibility for EOR applications. As the steam host, Chevron states that it is not aware of any other attempt to apply this technology to an oilfield waste-heat stream such as Cymric's. Using this technology, the waste-heat stream will generate electricity without any further combustion, meaning zero additional emissions of NOx and CO2.

If ORC technology is successfully validated for this application, PG&E's ratepayers may benefit from the increased penetration of the technology. Because the ORC technology converts waste heat recovered from the EOR process into electrical power, a successful Demonstration Project could lead to wider use of bottoming-cycle technology not only in EOR fields located within PG&E's service territory, but also in other industrial waste heat streams, resulting in increased efficiency in fossil fuel usage and a corresponding reduction in GHG emissions. This could eventually lead to the availability of more competitive and efficient means of GHG reduction through CHP technology for PG&E's customers. However, the operational and performance data from the Demonstration Project are essential to facilitate further investment in this technology for these applications.

F. Description of any significant, pending legal or regulatory disputes between the Utility and the QF, and their resolution or status.

There are currently no disputes between PG&E and the counterparty related to this transaction. This transaction does not resolve any current or recent legal or regulatory dispute associated with the existing PPA.

G. Assessment of the QF's projected economic and operational viability under the existing contract.

The Chevron Cymric facility has consistently delivered energy and as-available capacity. The facility primarily serves on-site load. It is economically and operationally viable and is expected to remain so. The Demonstration Project is expected to validate the feasibility, costs, and benefits of the ORC technology for EOR applications.

H. A detailed description of ratepayer benefits, shareholder incentive, and sensitivity analyses.

1. Customer Benefits

The Commission adopted the RALF advice letter process to expedite its review and approval of beneficial restructured QF contracts. After hearing from QFs, investor-owned utilities, consumer representatives and other stakeholders, the Commission issued decisions in 1998 and 1999 that adopted a procedure whereby the investor

owned utilities could submit a PPA amendment for Commission approval through advice letter, instead of by application, conditioned upon DRA's review and agreement that any proposed amendment provided sufficient ratepayer benefits to justify the transaction.¹¹

The purpose of the Proposed Amendment is to enable Chevron to add the Demonstration Project to the facilities from which PG&E purchases power under the Cymric PPA. Unlike the contracts typically proposed for approval under the RALF process, the effect of the Proposed Amendment is not to reduce total payments. Thus, PG&E is not providing a comparison between the net present value of the PPA with and without the terms of the Proposed Amendment for Commission review as it usually does in its RALF advice letters. Payments under the PPA will continue to be at CPUC determined "Avoided Costs" for energy and capacity.

However, the incremental CHP generation provided by the new bottoming-cycle facility will produce GHG savings relative to the double benchmark adopted by the QF/CHP Settlement Agreement. The Demonstration Project is a bottoming-cycle facility which does not use natural gas or oil for supplemental firing. This type of resource is not subject to any efficiency standard, but it is recognized as a qualifying cogeneration facility pursuant to 18 CFR 202.205 subsection (b)(2). The Demonstration Project is a "New CHP ("combined heat and power") Facility" that may be counted towards PG&E's CHP Procurement Target pursuant to Section 5.2.5 of the QF/CHP Settlement Term Sheet. PG&E requests a finding that the incremental 0.95 MW represented by the Demonstration Project counts towards its CHP MW target under the QF/CHP Settlement Agreement approved by Decision 10-12-035.

2. Shareholder Incentive

PG&E is not seeking a shareholder incentive for the Proposed Amendment. The shareholder incentive mechanism is inapplicable to this request for approval of the Proposed Amendment because PG&E does not propose to restructure payments under the PPA, but will pay Chevron for generation from the Demonstration Project at the existing CPUC determined Avoided Costs rates in the PPA.

¹¹ D.99-02-085, 85 CPUC2d 158,168. "D.98-12-066 ... adopted a modified version of a proposal for a restructuring Advice Letter process for certain QF contract modification proposals in the instances when the restructuring Advice Letter has the support or neutrality of the Office of Ratepayer Advocates. In that decision, we provided an expedited and clear path for adoption of QF contract restructurings which ORA believes do provide sufficient benefits to ratepayers. These restructurings do not have to meet any particular ratepayer benefit standard."

3. Sensitivity Analyses

Because the benefits of the Proposed Amendment are qualitative and not quantitative, PG&E cannot provide a sensitivity analyses in support of its request for approval. However, under the Proposed Amendment, PG&E's ratepayers will receive the immediate benefit of procuring electricity generated with zero incremental GHG emissions. Long-term benefits to PG&E's ratepayers may result from the possible increased adoption of this emission-free CHP technology within California.

The Demonstration Project may promote greater industry awareness of the feasibility of using non-polluting bottoming cycle cogeneration technology in a previously untapped steam host environment. The technical expertise gained from the operation of ORC technology in the EOR field may provide ratepayer benefits in the form of cost savings and reduced environmental impact from electricity generation, although these benefits cannot be quantified at this time.

By approving the Amendment, the Commission will "encourage and support the development of cogeneration as an efficient, environmentally beneficial, competitive energy resource that will enhance the reliability of local generation supply, and promote local business growth," consistent with the policy set forth in Public Utilities Code Section 372. If the Commission does not approve the Amendment, it would hinder the collection of objective data that may be useful in supporting the cost-effective use of a significant GHG reducing technology.

I. Copy of Existing PPA, As Amended

A copy of the existing Standard Offer 1 As-Delivered Capacity and Energy PPA, including the existing amendments, is provided as Appendix 1.

J. Copy of the Proposed Amendment

A copy of the Proposed Amendment is provided as Confidential Appendix A.

K. DRA statement of support or neutrality

As required by the RALF procedure, PG&E requested the DRA provide a QFRRL. As noted in Section I, above, the DRA Program Manager provided a letter dated July 11, 2013, which finds the Proposed Amendment to be consistent with Commission guidelines on restructuring QF contracts and states, "DRA has reviewed the amendment and has verified the benefit to PG&E's customers. As a result of this analysis and review, DRA does not oppose the approval of the proposed Amendment 5 between PG&E and Chevron, USA."

III. Request for Commission Approval

PG&E respectfully seeks a Commission resolution no later than October 3, 2013, that:

1. Finds that PG&E has met the requirements of the Restructuring Advice Letter Filing procedure adopted in D.98-12-066;
2. Finds that PG&E discussed the Proposed Amendment with its Procurement Review Group pursuant to D.02-08-071;
3. Finds PG&E's execution of the Amendment to be reasonable and approves the Amendment in its entirety, including payments to be made by PG&E pursuant to the Amended PPA, subject only to the Commission's review of the prudence of PG&E's administration of the Amended PPA;
4. Finds and concludes that it is reasonable for PG&E to recover its costs under the Amended PPA through its Energy Resource Recovery Account.
5. Finds that the 950 kW associated with the Amendment apply towards PG&E's procurement target of 1,387 MW or CHP capacity in the Initial Program Period, as established by the QF/CHP Settlement.
6. Finds that the 2,114 metric tonnes per year of GHG emissions reduction resulting from the Amendment counts towards PG&E's GHG emissions reduction target, as established by the QF/CHP Settlement.
7. Grants PG&E such other relief as the Commission finds to be just and reasonable.

IV. Protests

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, by facsimile or electronically, any of which must be received no later than **August 5, 2013**, which is twenty (20) days after the date of this filing. Protests should be mailed to:

CPUC Energy Division
ED Tariff Unit
505 Van Ness Avenue, 4th Floor
San Francisco, California 94102
Facsimile: (415) 703-2200
E-mail: EDTariffUnit@cpuc.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, 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 below on the same date it is mailed or delivered to the Commission:

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

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

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).

V. Effective Date

PG&E requests that this Tier 3 advice filing be effective on or before **October 3, 2013**. PG&E submits this request as a restructuring advice letter filing.

VI. Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and the parties on the service list for R.12-03-014. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter filings can also be accessed electronically at: <http://www.pge.com/tariffs>

A handwritten signature in cursive script that reads "Brian Cherry /sw".

Vice President, Regulatory Relations

Public Attachments:

Appendix 1: Existing Standard Offer 1 As-Delivered Capacity and Energy Power Purchase Agreement , As Amended

Appendix 2: Declaration of Hugh Merriam Seeking Confidential Treatment Pursuant to D.08-04-023 and D.06-06-066

Confidential Attachments:

Appendix A: Proposed Fifth Amendment to the As-Delivered Capacity and Energy Power Purchase Agreement Between Chevron U.S.A. Inc. and Pacific Gas and Electric Company (PG&E Log # 25C003)

Appendix B: Summary of Amendment

Appendix C: Historical Operational Performance

Appendix D: DRA QFRRL

cc: Service List for R.12-03-014
Damon Franz, Energy Division, CPUC
Jason Houck, Energy Division, CPUC
Cem Turhal, Energy Division, CPUC
Noel Crisostomo, Energy Division, CPUC
Karen Hieta, DRA, CPUC
Claire Eustace, DRA, CPUC
Chris Ungson, DRA, CPUC
Chloe Lukins, DRA, CPUC

Limited Access to Confidential Material:

The portions of this Advice Letter marked Confidential Protected Material are submitted under the confidentiality protection of Sections 583 and 454.5(g) of the Public Utilities Code and General Order 66-C. A declaration seeking confidential treatment of the following attachments is being submitted with this advice letter in accordance with D.08-04-023. This material is protected from public disclosure pursuant to D.06-06-066 because it consists of, among other items, the contracts themselves, price information, and analysis of the proposed energy procurement contracts, which include the following documents:

- Confidential Appendix A: Proposed Fifth Amendment to the As-Delivered Capacity and Energy Power Purchase Agreement Between Chevron U.S.A. Inc. and Pacific Gas and Electric Company (PG&E Log # 25C003)
- Confidential Appendix B: Summary of Amendment
- Confidential Appendix C: Historical Operational Performance
- Confidential Appendix D: DRA QFRRL

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 E)**

Utility type:

ELC GAS
 PLC HEAT WATER

Contact Person: Shirley Wong

Phone #: (415) 972-5505

E-mail: PGETariffs@pge.com and slwb@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) #: **4253-E**

Tier: **3**

Subject of AL: **Approval of Pacific Gas and Electric Company's Proposed Amendment of its Power Purchase Agreement with Chevron U.S.A., Inc. to include the Cymric Demonstration Project**

Keywords (choose from CPUC listing): Compliance, Agreements, Portfolio

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

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution #:

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

Confidential information will be made available to those who have executed a nondisclosure agreement: Yes No

Name(s) and contact information of the person(s) who will provide the nondisclosure agreement and access to the confidential information: Hugh Merriam, (415) 973-1269

Resolution Required? Yes No

Requested effective date: **October 3, 2013**

No. of tariff sheets: N/A

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): 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).

Tariff schedules affected: N/A

Service affected and changes proposed: N/A

Pending advice letters that revise the same tariff sheets: N/A

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:

California Public Utilities Commission
Energy Division
EDTariffUnit
505 Van Ness Ave., 4th Flr.
San Francisco, CA 94102
E-mail: EDTariffUnit@cpuc.ca.gov

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

Appendix 1:

Existing Standard Offer 1 As-Delivered
Capacity and Energy Power Purchase
Agreement, As Amended

PG and E
FOR INTRA - COMPANY USES

Doc - copy
(2 agree.)
Pacific Gas and Electric Company

From Division or Department **SITING**

dm
AUG 5 1982

FILE No.
RE LETTER OF SUBJECT
Chevron U.S.A. Inc. - PGandE Power Purchase Agreement

OFFICE OF THE
VICE PRESIDENT AND
CORPORATE SECRETARY

To Division or Department
VICE PRESIDENT AND CORPORATE SECRETARY

250003

July 30, 1982

MR. J. F. TAYLOR:

Attached for filing are signature copies of two executed power purchase agreements between Chevron U.S.A. Inc. (CUSA) and PGandE.

Each agreement is essentially identical to PGandE's May 12, 1982 Standard Offer #1, "Power Purchase Agreement for As-Delivered Capacity and Energy".

Each agreement provides for the purchase of 10 MW of energy and as-delivered capacity on a surplus-sale basis from CUSA's Taft and Cymric enhanced oil recovery cogeneration facilities in Kern County. The agreements are effective as of the date of execution, July 22, 1982, and will remain in effect for two years.

Each facility is expected to begin operation in August 1982.

H. M. Howe
H. M. HOWE

RSMcEwen(6256):jk

cc: (with attachments)

- | | |
|------------|------------|
| FCBuchholz | CEParker* |
| ICato | GNRadford* |
| WAFlowers | ECSuess |

cc: (without attachments - contact R. S. McEwen on extension 6256 for copies if desired)

- | | | |
|-------------|-------------|------------|
| DJBaxter | JRHerrera | SPReynolds |
| DHColwell | DLLudvigson | JVRocca |
| JCCoulter | JFMcKenzie | JESchumann |
| HECrowhurst | JGMeyer | JMStearns |
| TRFerry | WPNoone | CWThissell |
| EEHall | ICodom | JNYlarraz |

* San Joaquin Division

DOCUMENT No. 20828-4

1
2 AS-DELIVERED CAPACITY AND ENERGY
3 POWER PURCHASE AGREEMENT
4 BETWEEN
5 CHEVRON U.S.A. INC.
6 AND
7 PACIFIC GAS AND ELECTRIC COMPANY
8 (CHEVRON CYMRIC FACILITY)
9

10 CHEVRON U.S.A. INC. ("Seller"), and PACIFIC GAS AND
11 ELECTRIC COMPANY ("PGandE"), referred to collectively as
12 "Parties" and individually as "Party", agree as follows:
13

14 ARTICLE 1 QUALIFYING STATUS
15

16 Seller warrants that, at the date of first power
17 deliveries from Seller's Facility¹ and during the term of
18 agreement, its Facility shall meet the qualifying facility
19 requirements established as of the effective date of this
20 Agreement by the Federal Energy Regulatory Commission's
21 rules (18 Code of Federal Regulations 292) implementing the
22 Public Utility Regulatory Policies Act of 1978 (16 U.S.C.A.
23 796, et seq.).
24

25 ¹ Underlining identifies those terms which are defined in Section A-1
26 of Appendix A.

ARTICLE 2 PURCHASE OF POWER

1
2
3 a) Seller shall sell and deliver and PGandE shall
4 purchase and accept from the Facility having a nameplate
5 rating of 10,000 kW located at Section 36, Township 29
6 South, Range 21 East, Mount Diablo Base and Meridian the
7 as-delivered capacity and energy at the voltage level of
8 12 kV. Seller has chosen surplus energy output as its
9 energy sale option. Seller may convert its energy sale
10 option as provided in Section 3 of Appendix A.

11 b) The scheduled operation date when Seller estimates
12 first delivery of electric energy from the Facility to
13 PGandE is July 1982. At the end of each calendar quarter
14 Seller shall give to PGandE written notice of any change to
15 the scheduled operation date.

16
17 c) Seller shall limit the Facility's actual rate of
18 delivery into the PGandE system to 10,000 kW.

19
20 d) The primary energy source for the Facility is
21 natural gas.

22
23 ARTICLE 3 PURCHASE PRICE

24
25 PGandE shall pay Seller for as-delivered capacity and
26 energy at prices authorized from time to time by the CPUC.

1 ARTICLE 4 NOTICES

2
3 All written notices shall be directed as follows:

4
5 to PGandE: Pacific Gas and Electric Company
6 Attention: Vice President -
7 Electric Operations
77 Beale Street
San Francisco, CA 94106

8 to Seller: Chevron U.S.A. Inc.
9 Production Department
10 Attention: Division Manager
P. O. Box 5355
11 Bakersfield, CA 93388

12 ARTICLE 5 DESIGNATED SWITCHING CENTER

13
14 The designated PGandE switching center shall be unless
15 changed by PGandE:

16
17 Midway Substation
18 1918 H Street
Bakersfield, CA 93301
19 (805) 764-5229

20
21 ARTICLE 6 TERMS AND CONDITIONS

22
23 This Agreement includes the following appendices which
24 are attached and incorporated by reference:

25 Appendix A - POWER PURCHASE GENERAL TERMS AND
26 Appendix B - INSURANCE

ARTICLE 7 TERM OF AGREEMENT

This Agreement shall be binding upon execution and remain in effect for two years from the date of execution. Seller may terminate this Agreement at any time by giving 30 days prior written notice to PGandE.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their duly authorized representatives as of the last date set forth below:

CHEVRON U.S.A. INC.

PACIFIC GAS AND ELECTRIC COMPANY

BY: C. D. Fiddler

BY: G. A. Maneatis ^{no} _{to ll}

C. D. FIDDLER
(Type Name)

G. A. Maneatis
(Type Name)

TITLE: DIVISION MANAGER

TITLE: Senior Vice President
Facilities Development

DATE SIGNED: JULY 13, 1982

DATE SIGNED: July 22, 1982

APPENDIX A
AS-DELIVERED CAPACITY AND ENERGY
POWER PURCHASE GENERAL TERMS AND CONDITIONS

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APPENDIX A

POWER PURCHASE GENERAL TERMS AND CONDITIONS

A-1. DEFINITIONS

Whenever used in this Agreement, appendices, and attachments hereto, the following terms shall have the following meanings:

CPUC - The Public Utilities Commission of the State of California.

Designated PGandE switching center - That switching center or other PGandE installation identified in Article 5.

Facility - That generation apparatus described in Article 2 and all associated equipment owned, maintained, and operated by Seller.

Interconnection facilities - All means required and apparatus installed to interconnect and deliver power from the Facility to the PGandE system including, but not limited to, connection, transformation, switching, metering, communications, and safety equipment, such as equipment

1 required to protect 1) the PGandE system and its customers
2 from faults occurring at the Facility, and 2) the Facility
3 from faults occurring on the PGandE system or on the systems
4 of others to which the PGandE system is directly or
5 indirectly connected. Interconnection facilities also
6 include any necessary additions and reinforcements by PGandE
7 to the PGandE system required as a result of the
8 interconnection of the Facility to the PGandE system.

9
10 Net energy output - The gross output the Facility
11 produces in kilowatt-hours, less station use and
12 transformation and transmission losses to the point of
13 delivery into the PGandE system.

14
15 Prudent electrical practices - Those practices,
16 methods, and equipment, as changed from time to time, that
17 are commonly used in prudent electrical engineering and
18 operations to design and operate electric equipment lawfully
19 and with safety, dependability, efficiency, and economy.

20
21 Special facilities - Those parts of the
22 interconnection facilities furnished by PGandE at Seller's
23 request and those additions and reinforcements to the PGandE
24 system which are needed to accommodate Seller's maximum
25 delivery of power from the Facility as provided in
26 Article 2(c) of this Agreement. All special facilities

1 shall be furnished pursuant to PGandE's electric tariff
2 (Rule No. 21) by separate agreement.

3
4 Station use - Energy used to operate the
5 Facility's auxiliary equipment. The auxiliary equipment
6 includes, but is not limited to, forced and induced draft
7 fans, cooling towers, boiler feed pumps, lubricating oil
8 systems, plant lighting, fuel handling systems, control
9 system, and sump pumps.

10
11 Surplus energy output - The Facility's gross
12 output, in kilowatt-hours, less station use, and any other
13 use by the Seller, and transformation and transmission
14 losses to the point of delivery into the PGandE system.

15
16 Term of agreement - The period of time during
17 which this Agreement will be in effect, as provided in
18 Article 7.

19
20 Voltage level - The voltage at which the Facility
21 interconnects with the PGandE system, measured at the point
22 of delivery.

1 A-2. CONSTRUCTION

2
3 A-2.1 Land Rights

4
5 Seller hereby grants to PGandE all necessary rights of
6 way and easements to install, operate, maintain, replace,
7 and remove the special facilities, including adequate and
8 continuing access rights on property of Seller. Seller
9 agrees to execute such other grants, deeds, or documents as
10 PGandE may require to enable it to record such rights of way
11 and easements. If any part of PGandE's equipment is to be
12 installed on property owned by other than Seller, Seller
13 shall, at its own cost and expense, obtain from the owners
14 thereof all necessary rights of way and easements, in a form
15 satisfactory to PGandE, for the construction, operation,
16 maintenance, and replacement of PGandE's equipment upon such
17 property. If Seller is unable to obtain these rights of way
18 and easements, Seller shall reimburse PGandE for all costs
19 incurred by PGandE in obtaining them. PGandE shall at all
20 times have the right of ingress to and egress from the
21 Facility at all reasonable hours for any purposes reasonably
22 connected with this Agreement or the exercise of any and all
23 rights secured to PGandE by law or its tariff schedules.
24
25
26

1 A-2.2 Design, Construction, Ownership, and Maintenance

2
3 a) Seller shall design, construct, install, own, and
4 maintain interconnection facilities, except metering
5 equipment as provided in section A-2.3, to the point of
6 interconnection with the PGandE system as required for
7 PGandE to receive as-delivered capacity and energy from the
8 Facility. The interconnection facilities shall be of a size
9 to accommodate as-delivered capacity and energy designated
10 in Article 2(c) of this Agreement. The Facility and
11 interconnection facilities shall meet all requirements of
12 applicable codes and prudent electrical practices and shall
13 be managed in a safe and prudent manner.

14
15 b) Seller shall submit all specifications necessary
16 for the design of the interconnection facilities to PGandE
17 for review and written acceptance prior to their release for
18 construction purposes. PGandE's review and acceptance of
19 these specifications shall not be construed as confirming or
20 endorsing the design or as warranting their safety,
21 durability, or reliability. PGandE shall not, by reason of
22 such review or lack of review, be responsible for strength,
23 details of design, adequacy, or capacity of equipment built
24 pursuant to such specifications, nor shall PGandE's
25 acceptance be deemed to be an endorsement of any of such
26 equipment. Seller shall change the interconnection

1 facilities as may be reasonably required by PGandE to meet
2 changing requirements of the PGandE system.

3
4 c) In the event it is necessary for PGandE to install
5 interconnection facilities for the purposes of this
6 Agreement, they shall be installed as special facilities.

7 A-2.3 Meter Installation

8
9 a) PGandE shall specify, provide, own, install, and
10 maintain all metering equipment for the registration and
11 recording of energy and other related parameters which are
12 required for the reporting of data to PGandE and for
13 computing the payment due Seller from PGandE.

14
15 b) PGandE may require Seller at Seller's expense to
16 install, at a location within the Facility agreed to by both
17 Parties, secondary displays for metering data, to enable
18 Seller to make daily telephone reports of the hourly
19 readings of power and the daily readings of energy delivered
20 into the PGandE system.

21
22 c) Seller shall provide, construct, install, own, and
23 maintain at Seller's expense all that is required to
24 accommodate the metering equipment, such as, but not limited
25 to, metal-clad switchgear, switchboards, cubicles, metering
26 panels, enclosures, conduits, rack structures, and equipment
mounting pads.

1 A-3. ENERGY SALE OPTIONS

2
3 A-3.1 General

4
5 Seller has two energy sale options, namely (1) net
6 energy output, or (2) surplus energy output. Seller has
7 made its initial selection in Article 2(a).

8
9 A-3.2 Energy Sale Conversion

10
11 a) Seller is entitled to convert from one option to
12 the other 12 months after execution of this Agreement, and
13 thereafter at least 12 months after the effective date of
14 the most recent conversion, subject to the following
15 conditions:

16
17 (1) Seller shall provide PGandE with a written
18 request to convert its energy sale option.

19
20 (2) Seller shall comply with all applicable
21 tariffs on file with the CPUC and contracts in effect
22 between the Parties at the time of conversion covering the
23 existing and proposed (i) facilities used to serve Seller's
24 premises and (ii) interconnection facilities.

1 (3) Seller shall install and operate equipment
2 required by PGandE to prevent PGandE from serving any part
3 of Seller's load which is served by the Facility and not
4 under contract for PGandE standby service. At Seller's
5 request, PGandE shall provide this equipment as special
6 facilities.

7
8 b) PGandE shall not be required to remove or reserve
9 capacity of facilities made idle by Seller's energy sale
10 conversion and may dedicate such facilities at any time to
11 serve other customers or to interconnect with other electric
12 power sources.

13
14 c) PGandE shall process requests for conversion in
15 the order received. The effective date of conversion shall
16 depend on the completion of the changes required to
17 accommodate Seller's energy sale conversion.

18
19 A-4. OPERATION

20
21 A-4.1 Inspection and Approval

22
23 Seller shall not operate the Facility in parallel with
24 PGandE's system until an authorized PGandE representative
25 has inspected the interconnection facilities and has given
26 written approval to begin parallel operation.

1 A-4.2 Facility Operation and Maintenance

2
3 Seller shall operate and maintain its Facility
4 according to prudent electrical practices and shall provide
5 such reactive power support as may be reasonably required by
6 PGandE to maintain system voltage level and power factor.
7 Synchronous generators shall be capable of operating at any
8 power factor between 90% lagging and 95% leading. Induction
9 generators may be required to have reactive capability
10 equivalent to that of a similar size synchronous generator.
11 Seller shall operate the Facility at the power factors or
12 levels of voltage prescribed by PGandE's system dispatcher
13 or designated representative. If Seller fails to provide
14 reactive power support, PGandE may do so at Seller's
15 expense.

16
17 A-4.3 Point of Delivery

18
19 Seller shall deliver the energy at the point where
20 Seller's electrical conductors contact PGandE's existing
21 system or at such other point as the Parties may agree in
22 writing.

23
24 A-4.4 Operating Communications

25
26 a) Seller shall maintain operating communications
with the designated PGandE switching center. The operating

1 communications shall include, but not be limited to, system
2 paralleling or separation, scheduled and unscheduled
3 shutdowns, equipment clearances, levels of operating voltage
4 or power factors, and daily capacity and generation reports.

5
6 b) Seller shall keep a daily operations log for each
7 generating unit which shall include information on unit
8 availability, maintenance outages, circuit breaker trip
9 operations requiring a manual reset, and any significant
10 events related to the operation of the Facility.

11
12 c) If Seller makes deliveries greater than one
13 megawatt, Seller shall measure and register on a graphic
14 recorder power in kW and voltage in kV at the metering
15 location.

16
17 d) If Seller makes deliveries greater than one and up
18 to and including ten megawatts, Seller shall report to the
19 designated PGandE switching center, once a day prior to
20 3 a.m. for the previous day's operation, the hourly readings
21 in kW of capacity delivered and the daily energy in kWh
22 delivered.

23
24 e) If Seller makes deliveries of greater than ten
25 megawatts, Seller shall telemeter the delivered capacity and
26 energy information, including real power in kW, reactive

1 power in kVAR, and energy in kWh to a switching center
2 selected by PGandE. PGandE may also require Seller to
3 telemeter transmission kW, kVAR, and kV data depending on
4 the number of generators and transmission configuration.

5
6 f) At Seller's expense, PGandE shall specify,
7 install, maintain, and operate equipment required for
8 telemetering and data processing. Seller shall provide and
9 maintain the data circuits required for telemetering. When
10 telemetering is inoperative, Seller shall report daily the
11 capacity delivered each hour and the energy delivered each
12 day to the designated PGandE switching center.

13
14 A-4.5 Meter Testing and Inspection

15
16 a) All meters used to provide data for the
17 computation of the payments due Seller from PGandE shall be
18 sealed, and the seals shall be broken only by PGandE when
19 the meters are to be inspected, tested, or adjusted.

20
21 b) PGandE shall, at its expense, inspect and test all
22 meters upon their installation and annually thereafter. If
23 requested by Seller, PGandE shall inspect or test a meter
24 more frequently, but the expense of such inspection or test
25 shall be paid by Seller. PGandE shall give reasonable
26 notice to Seller of the time when any inspection or test

1 shall take place and Seller may have representatives present
2 at the test or inspection. If a meter is found to be
3 inaccurate or defective, PGandE shall adjust, repair, or
4 replace it at its expense in order to provide accurate
5 metering.

6
7 A-4.6 Adjustments to Meter Measurements

8
9 If a meter fails to register, or if the measurement
10 made by a meter during a test varies by more than two
11 percent from the measurement made by the standard meter used
12 in the test, an adjustment shall be made correcting all
13 measurements made by the inaccurate meter for--

14
15 (1) the actual period during which inaccurate
16 measurements were made, if the period can be determined, or
17 if not,

18
19 (2) the period immediately preceding the test of
20 the meter equal to one-half the time from the date of the
21 last previous test of the meter, provided that the period
22 covered by the correction shall not exceed six months.

23
24 A-5. PAYMENT

25
26 PGandE shall mail to Seller not later than 30 days
after the end of each monthly billing period (1) a statement

1 showing the kilowatt-hours delivered to PGandE during
2 on-peak, partial-peak and off-peak periods during the
3 previous monthly billing period, (2) PGandE's computation of
4 the payment due Seller and (3) PGandE's check in payment of
5 said amount. If within 30 days of receipt of the statement,
6 Seller does not make a report in writing to PGandE of an
7 error, Seller shall be deemed to have waived any error in
8 PGandE's statement, computation, and payment, and they shall
9 be considered correct and complete.

10
11 A-6. ADJUSTMENTS OF PAYMENTS

12
13 a) In the event adjustments to payments are required
14 as a result of corrected measurements made by inaccurate
15 meters, PGandE shall use the corrected measurements
16 described in Paragraph A-4.6 to recompute the amount due
17 from PGandE to Seller for the as-delivered capacity and
18 energy delivered under this Agreement during the period of
19 inaccuracy.

20
21 b) The additional payment to Seller or refund to
22 PGandE shall be made within 30 days of notification of the
23 owing Party of the amount due.
24
25
26

1 A-7 ACCESS TO RECORDS

2
3 Each Party, after reasonable written notice to the
4 other Party, shall have the right of access to all metering
5 and related records including the operations logs of the
6 Facility.

7
8 A-8. CURTAILMENT OF DELIVERIES AND HYDRO SPILL
9 CONDITIONS

10
11 a) PGandE shall not be obligated to accept or pay for
12 and may require Seller to interrupt or reduce deliveries of
13 as-delivered capacity and energy 1) when necessary in order
14 to construct, install, maintain, repair, replace, remove,
15 investigate, or inspect any of its equipment or part of its
16 system, or 2) if it determines that interruption or
17 reduction is necessary because of emergencies, forced
18 outages, force majeure, operating conditions on its system,
19 or compliance with prudent electrical practices.

20
21 b) PGandE shall not be obligated to accept or pay for
22 and may require Seller with a Facility with a nameplate
23 rating of one megawatt or greater to interrupt or reduce
24 deliveries of as-delivered capacity and energy during
25 periods when purchases under this Agreement would result in
26 costs greater than those which PGandE would incur if it did

1 not make such purchases but instead generated an equivalent
2 amount of energy itself.

3
4 c) In anticipation of a period of hydro spill
5 conditions, as defined by the CPUC, PGandE may notify Seller
6 that any purchases of energy from Seller during such period
7 shall be at hydro savings prices quoted by PGandE. If
8 Seller delivers energy to PGandE during any such period,
9 Seller shall be paid hydro savings prices for those
10 deliveries in lieu of prices which would otherwise be
11 applicable. The hydro savings prices shall be calculated by
12 PGandE using the following formula:

13
14
$$\frac{AQF - S}{AQF} \times PP$$

15

16
17 where: AQF = Energy, in kWh, projected to be available
18 during hydro spill conditions from all
19 qualifying facilities under agreements
20 containing hydro savings price provisions.

21
22 S = Potential energy, in kWh, from PGandE hydro
23 facilities which will be spilled if all AQF
24 is delivered to PGandE.
25
26

1 PP = Prices published by PGandE for purchases
2 during other than hydro spill conditions.

3
4 d) Whenever possible, PGandE shall give Seller
5 reasonable notice of the possibility that interruption or
6 reduction of deliveries under subsections (a) or (b), above,
7 may be required. PGandE shall give Seller notice of general
8 periods when hydro spill conditions are anticipated, and
9 shall give Seller as much advance notice as practical of any
10 specific hydro spill period and the hydro savings price
11 which will be applicable during such period. Before
12 interrupting or reducing deliveries under subsection (b),
13 above, and before invoking hydro savings prices under
14 subsection (c) above, PGandE shall take reasonable steps to
15 make economy sales of the surplus energy giving rise to the
16 condition. If such economy sales are made, while the
17 surplus energy condition exists Seller shall be paid at the
18 economy sales price obtained by PGandE in lieu of the
19 otherwise applicable prices.

20
21 A-9. INDEMNITY

22
23 Each Party as indemnitor shall save harmless and
24 indemnify the other Party and the directors, officers, and
25 employees of such other Party against and from any and all
26 loss and liability for injuries to persons including

1 employees of either Party, and property damages, including
2 property of either Party, to the extent resulting from or
3 arising out of (i) the engineering, design, construction,
4 maintenance, or operation of or (ii) the making of
5 replacements, additions, or betterments to, the indemnitor's
6 facilities. This indemnity and save harmless provision
7 shall apply notwithstanding the active or passive negligence
8 of the indemnitee. Neither Party shall be indemnified
9 hereunder for liability or loss resulting from its sole
10 negligence or willful misconduct. The indemnitor shall, on
11 the other Party's request, defend any suit asserting a claim
12 covered by this indemnity and shall pay all costs, including
13 reasonable attorney fees, that may be incurred by the other
14 Party in enforcing this indemnity.

15
16 A-10. LIABILITY; DEDICATION

17
18 a) Nothing in this Agreement shall create any duty
19 to, any standard of care with reference to, or any liability
20 to any person not a Party to it. Neither Party shall be
21 liable to the other Party for consequential damages.

22
23 b) Each Party shall be responsible for protecting its
24 facilities from possible damage by reason of electrical
25 disturbances or faults caused by the operation, faulty
26 operation, or nonoperation of the other Party's facilities,

1 and such other Party shall not be liable for any such
2 damages so caused.

3
4 c) No undertaking by one Party to the other under any
5 provision of this Agreement shall constitute the dedication
6 of that Party's system or any portion thereof to the other
7 Party or to the public nor affect the status of PGandE as an
8 independent public utility corporation or Seller as an
9 independent individual or entity and not a public utility.

10
11 A-11. SEVERAL OBLIGATIONS

12
13 Except where specifically stated in this Agreement to
14 be otherwise, the duties, obligations, and liabilities of
15 the Parties are intended to be several and not joint or
16 collective. Nothing contained in this Agreement shall ever
17 be construed to create an association, trust, partnership,
18 or joint venture or impose a trust or partnership duty,
19 obligation, or liability on or with regard to either Party.
20 Each Party shall be liable individually and severally for
21 its own obligations under this Agreement.

22
23 A-12. NON-WAIVER

24
25 Failure to enforce any right or obligation by either
26 Party with respect to any matter arising in connection with

1 this Agreement shall not constitute a waiver as to that
2 matter or any other matter.

3
4 A-13. ASSIGNMENT

5
6 Neither Party shall voluntarily assign its rights nor
7 delegate its duties under this Agreement, or any part of
8 such rights or duties, without the written consent of the
9 other Party, except in connection with the sale or merger of
10 a substantial portion of its properties. Any such
11 assignment or delegation made without such written consent
12 shall be null and void. Consent for assignment will not be
13 withheld unreasonably. Such assignment shall include,
14 unless otherwise specified therein, all of Seller's rights
15 to any refunds which might become due under this Agreement.

16
17 A-14. CAPTIONS

18
19 All indexes, titles, subject headings, section titles,
20 and similar items are provided for the purpose of reference
21 and convenience and are not intended to affect the meaning
22 of the contents or scope of this Agreement.

23
24 A-15. CHOICE OF LAWS

25
26 This Agreement shall be interpreted in accordance with
the laws of the State of California, excluding any choice of

1 law rules which may direct the application of the laws of
2 another jurisdiction.

3
4 A-16. GOVERNMENTAL JURISDICTION AND AUTHORIZATION

5
6 Seller warrants that the Facility and interconnection
7 facilities, except special facilities, shall at all times
8 conform to all applicable laws and regulations, and Seller
9 shall obtain any governmental authorizations and permits
10 required for the construction and operation thereof. If at
11 any time Seller does not hold such authorizations and
12 permits, PGandE may refuse to accept deliveries of power
13 hereunder.

14
15 A-17. NOTICES

16
17 Any notice, demand, or request required or permitted to
18 be given by either Party to the other, and any instrument
19 required or permitted to be tendered or delivered by either
20 Party to the other, shall be in writing and so given,
21 tendered, or delivered, as the case may be, by depositing
22 the same in any United States Post Office with postage
23 prepaid for transmission by certified mail, return receipt
24 requested, addressed to the Party, or personally delivered
25 to the Party, at the address in Article 4 of this Agreement.
26 Changes in such designation may be made by notice similarly
given.

1 APPENDIX B

2
3 INSURANCE

4
5
6 B-1. WORKERS' COMPENSATION

7
8 Seller shall furnish PGandE a certificate of workers'
9 compensation or self-insurance indicating compliance with
10 the Labor Code of California, including Employer's Liability
11 insurance with a minimum of \$2,000,000 for injury or death
12 of any one person. This certificate should provide 30-day
13 written notice to PGandE prior to cancellation, termination,
14 alteration, or material change of such insurance.

15
16 B-2. COMPREHENSIVE GENERAL AND COMPREHENSIVE AUTOMOBILE
17 LIABILITY COVERAGE

18
19 a) Seller shall maintain during the performance
20 hereof, Comprehensive General Liability and Comprehensive
21 Automobile Liability of not less than \$3,000,000 combined
22 single limit or equivalent for bodily injury, personal
23 injury, and property damage as the result of any one
24 occurrence.

25
26 b) Comprehensive General Liability shall include
coverage for Premises-Operations, Owners and Contractors

1 Protective, Products/Completed Operations Hazard, Explosion,
2 Collapse, Underground, Contractual Liability, and Broad Form
3 Property Damage including Completed Operations.
4 Comprehensive Automobile Liability shall include coverage
5 for Owned, Hired, and Non-Owned automobiles.

6
7 c) Such insurance, by endorsement to the policy(ies),
8 shall include PGandE as an additional insured insofar as
9 work performed by Seller for PGandE is concerned, shall
10 contain a severability of interest clause, shall provide
11 that PGandE shall not by reason of its inclusion as an
12 additional insured incur liability to the insurance carrier
13 for payment of premium for such insurance, and shall provide
14 for 30-day written notice to PGandE prior to cancellation,
15 termination, alteration, or material change of such
16 insurance.

17
18 B-3. ADDITIONAL INSURANCE PROVISIONS

19
20 a) Evidence of coverage described above in Sections
21 B-1 and B-2 shall state that coverage provided is primary
22 and is not excess to or contributing with any insurance or
23 self-insurance maintained by PGandE.

24
25 b) PGandE shall have the right to inspect or obtain a
26 copy of the original policy(ies) of insurance.

1 c) Seller shall furnish the required certificates and
2 endorsements to PGandE prior to commencing performance
3 hereof.

4
5 d) All insurance certificates, endorsements,
6 cancellations, terminations, alterations, and material
7 changes of such insurance shall be issued and submitted to
8 the following:

9
10 PACIFIC GAS AND ELECTRIC COMPANY
11 Attention: Manager of Insurance
12 77 Beale Street, Room E-280
13 San Francisco, CA 94106
14
15
16
17
18
19
20
21
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23
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Appendix 2:

Declaration of Hugh Merriam
Seeking Confidential Treatment Pursuant to
D.08-04-023 and D.06-06-066

PACIFIC GAS AND ELECTRIC COMPANY

**DECLARATION OF HUGH MERRIAM IN SUPPORT OF
CONFIDENTIAL TREATMENT FOR CERTAIN DATA AND INFORMATION
CONTAINED IN PG&E'S ADVICE LETTER REQUESTING APPROVAL OF
THE FIFTH AMENDMENT TO THE AS-DELIVERED CAPACITY AND ENERGY
POWER PURCHASE AGREEMENT BETWEEN CHEVRON U.S.A. INC. AND
PACIFIC GAS AND ELECTRIC COMPANY (ADVICE 4253-E)**

I, Hugh Merriam, declare:

1. I am currently employed by Pacific Gas & Electric Company ("PG&E") as a Manager within PG&E's Energy Procurement organization. I have been employed by PG&E since 1983, and during that time I have acquired knowledge of PG&E's contracts with numerous counterparties and have also gained knowledge of the operations of electric sellers in general. Through this experience, I have become familiar with the type of information that would affect the negotiating positions of electric sellers with respect to price and other terms, as well as with the type of information that such sellers consider confidential and proprietary. I can also identify information that buyers and sellers of electricity would consider to be "market sensitive information" as defined by California Public Utilities Commission ("CPUC") Decision ("D.") 06-06-066 and D.09-12-020, that is, information that has the potential to materially impact a procuring party's market price for electricity if released to market participants.

2. Decision 08-04-023, ordering paragraph 8, requires that any advice letter containing information for which confidential treatment is requested must be accompanied by a declaration under penalty of perjury that justifies confidential treatment pursuant to D.06-06-066. Based on my knowledge and experience, I make this declaration seeking confidential treatment of Confidential Appendices A, B, C, and D to PG&E's Advice Letter ("Confidential Information").

3. The Appendices are as follows:

Appendix 1:	Standard Offer 1 Power Purchase Agreement (PPA) executed on July 22, 1982 (PG&E Log # 25C003)
Appendix 2:	Declaration of Hugh Merriam Seeking Confidential Treatment Pursuant to D.08-04-023 and D.06-06-066
Confidential Appendix A:	Proposed Fifth Amendment to the As-Delivered Capacity and Energy PPA Between Chevron U.S.A. Inc. and Pacific Gas and Electric Company
Confidential Appendix B:	Summary of Amendment
Confidential Appendix C:	Historical Operational Performance
Confidential Appendix D:	Qualifying Facility Restructuring Reasonableness Letter, dated July 11, 2013 by the Division of Ratepayer Advocates

4. Attached to this declaration is a matrix that describes the Confidential Information for which PG&E seeks continued protection against public disclosure, states whether PG&E seeks to protect the confidentiality of the Confidential Information pursuant to D.06-06-066 and/or other authority; and if PG&E seeks protection under D.06-06-066, the category of market sensitive information in D.06-06-066 Appendix I Matrix (“IOU Matrix”) to which the Confidential Information corresponds.

5. The attached matrix demonstrates that the Confidential Information (1) constitutes a particular type of confidentiality-protected data listed in the IOU Matrix; (2) corresponds to a category or categories of market sensitive information listed in the IOU Matrix; (3) may be treated as confidential consistent with the limitations on confidentiality specified in the IOU Matrix for that type of data; (4) is not already public; and (5) cannot be aggregated, redacted, summarized or otherwise protected in a way that allows partial disclosure. In the column labeled, “PG&E’s Justification for Confidential Treatment”, PG&E explains why

the Confidential Information is not subject to public disclosure under either or both D.06-06-066 and General Order 66-C. The confidentiality protection period is stated in the column labeled, "Length of Time."

6. By this reference, I am incorporating into this declaration all of the explanatory text in the attached matrix.

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 July 12, 2013, at San Francisco, California.

/s/

HUGH MERRIAM

**PACIFIC GAS AND ELECTRIC COMPANY'S (U 39 E)
 APPROVAL OF FIFTH AMENDMENT OF PG&E'S POWER PURCHASE AGREEMENT WITH CHEVRON U.S.A., INC.
 TO INCLUDE THE CYMRIC DEMONSTRATION PROJECT (ADVICE 4253-E)
 SUBMITTED ON JULY 15, 2013**

IDENTIFICATION OF CONFIDENTIAL INFORMATION

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 (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
Confidential Appendix A: Proposed Fifth Amendment	Y	Item VII - Bilateral Contract Terms and Conditions - Electric, Section B (Contracts and power purchase agreements between utilities and non-affiliated third parties (except RPS))	Y	N	N	Specific contract between the IOU and counterparty. Contract terms other than counterparty, resource type, location, capacity, expected deliveries, delivery point, length of contract and online date are confidential for three years from date contract states deliveries are to begin.	3 years
Confidential Appendix B: Summary of Amendment	Y	Item VII - Bilateral Contract Terms and Conditions - Electric, Section B (Contracts and power purchase agreements between utilities and non-affiliated third parties (except RPS))	Y	Y	Y	Specific contract between the IOU and counterparty. Contract terms other than counterparty, resource type, location, capacity, expected deliveries, delivery point, length of contract and online date are confidential for three years from date contract states deliveries are to begin.	3 years
Confidential Appendix C: Historical Operational Performance	N	Not applicable	N	Y	Y	The historical operational performance of the facility constitutes energy efficiency data that is confidential pursuant to CPUC Decision 91-05-007. Ordering Paragraph 3 of that decision states, "SDG&E, PG&E, and Edison shall not permit any person who is not charged with monitoring power producer operating efficiencies to gain access to power producers' operating data." Information consists of the historical operational performance of the facility.	No expiration date for QF proprietary efficiency information.

<p>Confidential Appendix D: Qualifying Facility Restructuring Reasonableness Letter</p>	<p>Y</p>	<p>Item VII - Bilateral Contract Terms and Conditions - Electric, Section B (Contracts and power purchase agreements between utilities and non- affiliated third parties (except RPS))</p>	<p>Y</p>	<p>Y</p>	<p>Y</p>	<p>This Appendix consists of a non-opposition letter from the Division of Ratepayer Advocates. It cites non-public contract information that analysis of would provide valuable market sensitive information to competitors, as described above with regard to Appendices A-B. Disclosure of this Appendix could undermine PG&E's ability to bargain on behalf of its customers, the Appendix should remain confidential for three years.</p>	<p>3 years</p>
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**PG&E Gas and Electric
Advice Filing List
General Order 96-B, Section IV**

1st Light Energy	Division of Ratepayer Advocates	Occidental Energy Marketing, Inc.
AT&T	Douglass & Liddell	OnGrid Solar
Alcantar & Kahl LLP	Downey & Brand	Pacific Gas and Electric Company
Anderson & Poole	Ellison Schneider & Harris LLP	Praxair
BART	G. A. Krause & Assoc.	Regulatory & Cogeneration Service, Inc.
Barkovich & Yap, Inc.	GenOn Energy Inc.	SCD Energy Solutions
Bartle Wells Associates	GenOn Energy, Inc.	SCE
Bear Valley Electric Service	Goodin, MacBride, Squeri, Schlotz & Ritchie	SDG&E and SoCalGas
Braun Blaising McLaughlin, P.C.	Green Power Institute	SPURR
CENERGY POWER	Hanna & Morton	San Francisco Public Utilities Commission
California Cotton Ginners & Growers Assn	In House Energy	Seattle City Light
California Energy Commission	International Power Technology	Sempra Utilities
California Public Utilities Commission	Intestate Gas Services, Inc.	SoCalGas
California State Association of Counties	Kelly Group	Southern California Edison Company
Calpine	Linde	Spark Energy
Casner, Steve	Los Angeles Dept of Water & Power	Sun Light & Power
Center for Biological Diversity	MAC Lighting Consulting	Sunshine Design
City of Palo Alto	MRW & Associates	Tecogen, Inc.
City of San Jose	Manatt Phelps Phillips	Tiger Natural Gas, Inc.
Clean Power	Marin Energy Authority	TransCanada
Coast Economic Consulting	McKenna Long & Aldridge LLP	Utility Cost Management
Commercial Energy	McKenzie & Associates	Utility Power Solutions
County of Tehama - Department of Public Works	Modesto Irrigation District	Utility Specialists
Crossborder Energy	Morgan Stanley	Verizon
Davis Wright Tremaine LLP	NLine Energy, Inc.	Water and Energy Consulting
Day Carter Murphy	NRG Solar	Wellhead Electric Company
Defense Energy Support Center	Nexant, Inc.	Western Manufactured Housing Communities Association (WMA)
Dept of General Services	North America Power Partners	