

**DRAFT**

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

**ENERGY DIVISION**

**Agenda ID 13008  
RESOLUTION E-4648  
June 26, 2014**

**REDACTED  
RESOLUTION**

Resolution E-4648. Pacific Gas and Electric Company requests California Public Utilities Commission approve the proposed Power Purchase Agreement for As-Available Energy and Capacity with Chevron U.S.A., Inc. for deliveries from existing and new cogeneration facilities at Chevron's Richmond Refinery.

**PROPOSED OUTCOME:** This Resolution approves the agreement between Pacific Gas and Electric and Chevron U.S.A. but denies PG&E's request to count capacity and GHG reduction toward the targets established in the Combined Heat and Power and Qualifying Facilities Settlement Agreement, pending completion and submission of a Capacity Demonstration Test.

**SAFETY CONSIDERATIONS:** This contract replaces an existing contract under which PG&E has purchased electricity from Chevron for more than 20 years and allows for Chevron to add up to 28 MW of efficient new units. The contract is not likely to result in a significant change in operations at the Richmond refinery, and it includes provisions requiring Chevron to operate the facilities in accordance with Prudent Electrical Practices.

**ESTIMATED COST:** Actual costs are confidential at this time.

By Advice Letter 4351-E Filed on February 5, 2014.

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**SUMMARY**

This Resolution approves a Power Purchase Agreement (PPA) that Pacific Gas and Electric Company (PG&E) has executed with Chevron U.S.A. Inc. for as-available deliveries from new and existing cogeneration facilities located at Chevron's refinery in Richmond, California, where Chevron currently operates about 140 MW of generation that primarily serves on-site load. The facilities

currently export a small amount of their generation to PG&E under a Standard Offer 1 (SO1) contract, which was terminated as of March 31, 2014. This Resolution approves a Letter Agreement that compensates Chevron for continued deliveries from the refinery pending Commission approval of the Richmond PPA.

The Resolution finds that PG&E's payments under the Agreement and the Letter Agreement are reasonable and that the payments shall be recovered in rates. However, this Resolution denies PG&E's request to count 28 megawatts (MW) of capacity and 39,644 metric tons (MT) per year of greenhouse gas (GHG) emissions reductions toward PG&E's MW and GHG targets under Commission Decision (D.) 10-12-035.

In accordance with Settlement Term Sheet Section 5.2.5, the capacity for Settlement counting purposes will be established via a Capacity Demonstration Test. Once the Capacity Demonstration Test is completed, PG&E may submit the results of the test to Energy Division via a tier 2 Advice Letter and request to count the MW and associated GHG benefit toward the settlement targets.

## **BACKGROUND**

### *Background on Relevant terms of the CHP/QF Settlement*

On December 16, 2010, the Commission adopted the Qualifying Facility and Combined Heat and Power Program Settlement Agreement 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 qualifying facility contracts.

The Settlement establishes MW procurement targets and 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.

The Commission defined several procurement processes for the IOUs within the Settlement. Per Section 4.2.1, the Commission directs the three IOUs to conduct Requests for Offers (RFOs) exclusively for CHP resources as a means of achieving the MW Targets and GHG Emissions Reduction Targets. The Settlement Term Sheet establishes terms and conditions regarding eligibility,

contract length, pricing, evaluation and selection and other terms and conditions of the RFOs. The maximum contract term for new facilities selected in an RFO is twelve (12) years, while the maximum term for existing facilities is seven (7) years.<sup>1</sup>

In addition, the Term Sheet also establishes other procurement pathways outside of the RFOs, including pro-forma contracts and contracts arrived at via bilateral negotiation. Facilities delivering as-available power can enter into a pro-forma Optional As-Available (OAA) PPA if the facility is larger than 20 MW but delivers less than 131,400 MWh per year. The OAA PPA has a maximum term of seven (7) years.

Finally, the Settlement allows bilaterally negotiated PPAs with terms and conditions determined by the utility and the CHP counterparty. The Settlement does not specify a maximum length for bilateral PPAs.

#### Background on AL 4351-E

PG&E has purchased electricity from the existing generating units at the Chevron Richmond refinery since 1992 under a Standard Offer 1 (SO1) PPA. At the start of the PPA, the refinery had 99 MW of onsite generation, but this capacity gradually expanded to 143 MW.

On February 5, 2014, PG&E filed Advice Letter 4351-E, requesting approval of a PPA with Chevron U.S.A. for as-available deliveries from existing and new CHP facilities at Chevron's Richmond refinery. The new PPA is intended to replace the existing SO1 contract, which expired on March 31, 2014.

Although the delivery profile of the Richmond units would be suited to the pro-forma OAA PPA under the Settlement agreement, PG&E states that other terms of that contract do not facilitate Chevron's future plans for the facility.

In particular, PG&E states that Chevron intends to add 27.85 MW of new bottoming-cycle CHP generation at the Richmond refinery, and for that reason, Chevron needs a longer contract term to facilitate construction of the new units. PG&E states that Chevron intends to build one 17.85 MW steam turbine, one 8.02 MW solar facility, and up to 10 MW of bottoming-cycle generators. The contract specifies that Chevron will post a development security associated with 20 MW of generation capacity that Chevron would forfeit if the facilities do not come online.

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<sup>1</sup> Settlement Term Sheet p. 13, Section 4.2.3

PG&E requests that the CPUC find that the executed agreement will count approximately 28 MW of new eligible CHP capacity and 39,644 metric tons (MT) of GHG reductions toward the Settlement targets. PG&E calculated the GHG reductions based on 90,000 MWh of generation per year from the bottoming-cycle facilities with no supplemental firing.

### **NOTICE**

Notice of AL 4351-E was made by publication in the Commission's Daily Calendar. PG&E states that a copy of the Advice Letter was mailed and distributed in accordance with Section 4 of General Order 96-B.

### **PROTESTS**

Advice Letter AL 4351-E was not protested.

### **DISCUSSION**

On February 5, 2014, PG&E filed Advice Letter AL 4351-E which requests Commission approval of the Richmond PPA with Chevron U.S.A.

Specifically, PG&E requests that the Commission:

1. Approves the Richmond PPA and Letter Agreement with Chevron Products Company in their entirety, including payments to be thereunder, subject only to Commission review of the reasonableness of PG&E's administration of the contract.
2. Determines that the rates and other terms and conditions set forth in the Richmond PPA and Letter Agreement are reasonable.
3. Allows PG&E to count 27.85 MW of incremental capacity towards its CHP Settlement MW Target.
4. Finds that the 39,644 MT per year of GHG Emissions Reductions resulting from the Richmond PPA applies toward PG&E's GHG Emissions Reduction Target.
5. Find that PG&E's costs under the Richmond PPA and Letter Agreement shall be recovered through PG&E's Energy Resource Recovery Account (ERRA).

6. Adopts the following findings of fact and conclusions of law in support of cost recovery for the Richmond PPA and Letter Agreement:
  - a. PG&E shall be entitled to allocate the net capacity costs and associated Resource Adequacy (RA) benefits of the Richmond PPA to bundled, DA, CCA and departing load (to the extent not exempted) customers consistent with D. 10-12-035, as modified by D. 11-07-010, and PG&E's Advice 3922-E, approved on December 19, 2011.
  - b. The net capacity costs of the CHP components of the Richmond PPA will be billed via PG&E's CAM rate and recovered through PG&E's New System Generation Balancing Account (NSGBA) from all benefitting customers. The procurement costs of the non-CHP components of the Richmond PPA will be collected via PG&E's Power Charge Indifference Amount (PCIA) rate.
  - c. Richmond PPA and Letter Agreement costs will be recovered through ERRA.
7. Finds that because the expected annualized capacity factor of the deliveries under the Richmond PPA is below 60 percent, the Richmond PPA is not a covered procurement subject to the EPS adopted in D. 07-01-039 and that the Richmond PPA is compliant with the EPS.

**Energy Division evaluated the Richmond PPA 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.<sup>2</sup>

**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 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 292.205<sup>3</sup>. 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 definitions<sup>4</sup> for cogeneration and the Emissions Performance Standard.

As a cogeneration facility that meets the state’s definition of a CHP facility and a self-certified QF with a QF Docket ID<sup>5</sup>, the existing generating units at the Richmond refinery meet the state’s definition of a CHP Facility.

Because the new generating units have not yet been constructed, however, the Commission cannot make a determination as to whether or not those units meet

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<sup>2</sup> 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.”

<sup>3</sup> Settlement Term Sheet Section 17: Glossary of Defined Terms, pp 65, 67, and 62.

<sup>4</sup> Definition of cogeneration per Public Utilities Code Section 216.6. Federal definition of qualifying cogeneration per 18 C.F.R. §292.205 implementing PURPA.

<sup>5</sup> Chevron Richmond was self-certified as a QF in Federal Energy Regulatory Commission (“FERC”) Docket No. 01C202 on August 31, 1992 and is an existing CHP QF.  
<http://www.pge.com/includes/docs/pdfs/b2b/qualifyingfacilities/cogeneration/2013july.pdf>

the definition of a CHP Facility and Qualifying Cogeneration Facility under the Settlement. The Commission will make a determination as to whether the new generation units meet the Settlement CHP/QF definition at the time PG&E submits the results of the Capacity Demonstration Test.

*Consistency with Settlement MW Counting Rules*

The Richmond PPA stipulates that Chevron may build “up to 28 MW” of new bottoming-cycle CHP at the Richmond Refinery.<sup>6</sup> PG&E Advice Letter 4351-E requests that the Commission issue a Resolution allowing PG&E to count 27.85 MW of incremental capacity toward its CHP Settlement MW target.

Section 5.2.5 of the Settlement Term Sheet states:

5.2.5 A New CHP Facility for the purposes of Section 5.2 means gas-fired Topping Cycle CHP Facilities and Bottoming Cycle CHP Facilities using waste heat. The capacity of a New CHP Facility to be used to count progress toward the MW Targets shall be established by a Capacity Demonstration Test. The CHP Facility’s capacity, as demonstrated by this test, shall exclude auxiliary/station power.

It is clear from the use of the word “established” in this section of the Settlement Term Sheet that the Capacity Demonstration test is the point at which the number of MW for settlement counting is determined for the first time. The Settlement clearly did not anticipate utilities counting MW of new CHP capacity upon approval of an Advice Letter and later verifying them with the Capacity Demonstration Test.

Per section 5.2.5 of the Settlement term sheet, PG&E’s request to count 27.85 MW of incremental capacity toward its CHP Settlement MW target is denied pending completion of a Capacity Demonstration Test.

Even if the CHP/QF Settlement allowed the utilities to count MW of new CHP capacity at the time of contract approval, the Commission would still have no basis for allowing PG&E to count 28 MW because the contract submitted with AL 4351-E does not specify that any particular number of MW will be built. The agreement simply specifies that Chevron may build “up to 28 MW” of bottoming-cycle CHP.<sup>7</sup> Thus, the only way for the Commission to have an assurance that any particular number of MW will result from this agreement is to wait for the

<sup>6</sup> PG&E Advice Letter 4351-E, p. 5

<sup>7</sup> PG&E Advice Letter 4351-E, p. 5

results of the Capacity Demonstration Test, at which time the MW may be counted toward the Settlement targets.

Once the Capacity Demonstration Test has been completed, PG&E should submit the results of the test to Energy Division via a tier 2 Advice Letter and request permission to count the MW toward the CHP settlement goals.

#### *Consistency with Settlement Greenhouse Gas Accounting Methodology*

Section 7 of the Settlement Term Sheet specifies GHG accounting principles for all CHP facilities. Specifically, Term Sheet Section 7.4.5 states that SGIP or behind-the-meter CHP Facilities are counted at the time operations commence. The proposed new bottoming-cycle generating units at the Richmond Refinery count as behind-the-meter CHP Facilities because nearly all of their output will be used to meet onsite load. Thus, the GHG savings from the facilities should be counted at the time their operations commence.

Indeed, it would be impossible for the Commission to count any specific amount of GHG savings from these facilities because the Richmond PPA does not indicate a specific number of MW that will be built – it only specifies a maximum number of MW that is permitted to be built. Once PG&E has determined the MW capacity of the Richmond CHP facilities using the Capacity Demonstration Test, it should use those results to calculate the GHG savings and request via Tier 2 Advice Letter permission to count the resulting GHG savings toward the Settlement Emissions Reduction Target.

Per Section 7.4.5 of the Settlement term sheet, PG&E may count GHG savings from the Richmond PPA towards PG&E's GHG Emissions Reduction Target at the time operations commence, using as a basis the MW capacity determined by the results of the Capacity Demonstration Test.

PG&E should request approval of the GHG accounting toward the Settlement targets via the Tier 2 Advice Letter used to submit the results of the Capacity Demonstration Test.

#### **Need for Procurement**

PG&E's total MW procurement target for the CHP Program is 1,387 MW, and 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 executed<sup>8</sup> 59 contracts proposed to contribute 1,025 MW and 1.12 MMT of GHG reductions toward these goals.

#### *Procurement Need to Meet the MW Target*

<sup>8</sup> Some of the executed contracts have not yet been approved by the Commission.



The Richmond PPA may contribute up to 28 MWs towards PG&E's MW targets, and thus may help PG&E reach its CHP MW targets. Because Chevron has five (5) years to bring the new generation online, however, and PG&E cannot count the MW prior to performing a Capacity Demonstration Test, it is possible that the new generation will not be brought online prior to the end of the CHP Settlement first program period and thus will not count against PG&E's Settlement MW target. In that case, PG&E may use any MW brought online as a result of the Richmond PPA to satisfy residual need after the first program period.

The Richmond PPA may contribute MW toward PG&E's Settlement target, but the exact number will be determined by a Capacity Demonstration Test.

#### *Procurement Need to Meet the GHG Emissions Reduction Target*

Under the QF/Settlement Agreement, PG&E is responsible for procuring 2.17 MMT of GHG reductions from CHP and QF contracts by 2020. The Richmond PPA may contribute up to 39,644 MT per year of GHG Emissions Reductions, but the exact quantity of emissions reduction will not be known until PG&E has submitted a Capacity Demonstration Test to the Commission and it is clear how many MW have been built. Because the new generating units at the Richmond facility are expected to come online prior to 2020, PG&E will have the opportunity to count GHG reductions from the Richmond facility toward its GHG target prior to the 2020 deadline once the Capacity Demonstration Test has been completed.

The Richmond PPA may result in some amount of GHG savings that count toward PG&E's emissions reduction target. PG&E should determine the GHG savings based on the results of the Capacity Demonstration Test and request approval to count those GHG savings via Tier 2 Advice Letter following the test.

#### **Cost Reasonableness**

The Richmond PPA was negotiated bilaterally between Chevron U.S.A., Inc. and PG&E to replace an evergreen contract that included the option for either party to terminate on a unilateral basis.

PG&E justifies the cost reasonableness of the Richmond PPA by comparing the cost of the PPA on a \$/CHP kW-year basis with other CHP procurement options. The Commission finds that this analysis does not use the appropriate benchmark for comparison, however, because PG&E is comparing the cost for an uncertain number of MW (the Richmond PPA) with the costs for existing projects whose MW contribution to the Settlement is known. Instead, the appropriate benchmark for comparison should be the costs and benefits of the status quo (the pre-existing SO1 PPA) with the costs and benefits of Richmond PPA. The

Commission will also consider the fact that some number of new, efficient CHP MW may come online as a result of the Richmond PPA.

Because PG&E had the option to continue contracting indefinitely with Chevron for output from the existing generation at the Richmond facility at terms similar to those of the Richmond PPA, the Commission does not foresee significantly increased costs resulting from the Richmond PPA beyond the status quo that would have existed if PG&E had elected to maintain the evergreen SO1 contract. In addition, the Richmond PPA offers the possibility that new, efficient CHP MW will be built at reasonable cost to ratepayers.

Moreover, because only the deliveries actually provided to the grid will be compensated, and those deliveries are limited on an annual basis by the terms of the agreement, the total cost to ratepayers of the Richmond PPA is limited. Finally, the Richmond PPA requires the refinery to comply with the CAISO tariff as a participating generator, which improves grid operation and thus provides ratepayer benefits.

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 Richmond PPA are just and reasonable.

### **Cost Recovery**

In D. 10-12-035, the Commission determined that the utilities should procure CHP resources on behalf of non-IOU load-serving entities and allocate the net capacity costs and associated benefits to those entities.<sup>9</sup> In AL 4351-E, PG&E proposes to allocate the net capacity costs associated with the Richmond PPA to all bundled, Direct Access, Community Choice Aggregator, and Departing Load Customers for collection on a non-bypassable basis.

PG&E proposes to bill these net capacity costs of the Richmond PPA through PG&E's Cost Allocation Mechanism (CAM) rate and recover them through its New System Generation Balancing Account (NSGBA). PG&E proposes to separately meter the solar PV facility and allocate the costs of that facility through the Power Charge Indifference Amount (PCIA).

The cost recovery proposal requested in AL 4351-E complies with the policy established in D. 10-12-035.

PG&E's cost recovery proposal for the Richmond PPA is reasonable.

### **Public Safety**

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<sup>9</sup> D. 10-12-035, p. 56

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 Richmond PPA is between PG&E and Chevron. The Commission's jurisdiction extends only over PG&E, not Chevron. Staff notes that on January 30, 2013, the Occupational Safety and Health Administration (OSHA) fined Chevron \$963,200 for 25 violations related to a large fire at the Richmond refinery on August 6, 2012. Eleven of the violations are classified as "willful serious" and 12 are classified as "serious." Some of the violations involved Chevron's operation of the electrical system at the refinery.

Based on the information before the Commission, the Chevron facility will not be substantially changed by a small increase in on-site generation. The proposed new generation would produce electricity using waste heat, and thus would not result in increased on-site fuel combustion. The PPA requires Chevron to operate the new and existing generation facilities in accordance with Prudent Electrical Practices. This requirement includes a number of provisions to ensure that the generating facilities are operated safely and reliably, including ensuring sufficient staff, maintenance, monitoring and testing, etc.

The Richmond PPA includes safeguards and requirements to ensure that the operation of the new and existing generating facilities will not result in any adverse safety impacts to the public or Chevron's employees.

### **Project Viability**

The on-site generating units at Chevron's Richmond facility have consistently delivered energy to PG&E on an as-available basis. The facility primarily serves on-site load. It is economically and operationally viable and is expected to remain so.

The proposal for Chevron to add 28 MW of new bottoming-cycle generating units at the facility might be economically and technically viable, but the Commission does not have sufficient information to determine their viability or the likelihood that the new generating units will be brought online.

The Commission does not have sufficient information to ascertain whether the proposed new generating units at the Richmond refinery are technically or economically feasible. Nevertheless, the Commission finds the costs of the contract to be reasonable even if the new units do not come online.

### **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. The annualized plant capacity factor for the Richmond facility is expected to be significantly below the 60% baseload threshold. Therefore, the EPS does not apply to the Richmond Facility.

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

### **Renewable Energy facility**

In addition to the proposed 28 MW of bottoming-cycle CHP facilities that could be built at the Richmond refinery, the Richmond PPA also includes a provision allowing Chevron to construct an 8 MW solar photovoltaic (PV) facility at the same location. The contract gives Chevron the option of selling the output from this facility to PG&E at the “brown power” price. Alternatively, Chevron may sell the energy to a third party. In either case, PG&E does not propose to count the MW toward its Renewable Portfolio Standard requirements.

The state of California has enacted numerous policies and programs to promote the development of renewable energy and solar PV in particular, including the Renewable Portfolio Standard, the California Solar Initiative, net energy metering, and utility-owned solar projects. If PG&E purchases the output of a solar PV facility from Chevron at the brown power price, this effectively results in development of solar PV facilities at no incremental cost to the ratepayer.

The proposal to include within the Richmond PPA an option for Chevron to sell the output from an 8 MW solar PV facility to PG&E at the “brown power” price is reasonable.

**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 Richmond PPA to its PRG on July 16, 2013, and notified its CAM group of pending negotiation on September 27, 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**

PG&E retained independent evaluator Merrimack Energy to monitor and evaluate the integrity of its bilateral negotiation process and submitted the independent evaluator's report as an appendix to AL 4351.

PG&E has complied with the Commission's rules for review of bilateral negotiation by 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.

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

### **FINDINGS**

1. Commission Decision 10-12-035 directed PG&E to procure 1,387 megawatts (MW) of combined heat and power (CHP) capacity by November 2015 and 2.17 million metric tons of greenhouse gas reductions (GHG) from CHP contracts by 2020.
2. On February 5, 2014, PG&E filed Advice Letter (AL) 4351, seeking approval of a bilaterally-negotiated power purchase agreement (PPA) with Chevron for as-available energy and capacity from 143 MW of existing generation and up to 28 MW of potential new CHP generating units at the Richmond refinery.
3. PG&E requests permission to count 28 MW of CHP capacity and the associated 39,644 metric tons of GHG emissions reductions toward its Settlement Targets.
4. The Settlement Term Sheet Section 4.6.2 offers a pro-forma Optional As-Available (OAA) PPA with a maximum term of seven years that does not

- require Commission approval for facilities larger than 20 MW with annual energy exports of less than 131,400 megawatt-hours per year.
5. The terms of the Richmond PPA are similar to terms of the pro-forma OAA PPA except that the Richmond PPA has a 12-year term, and the OAA PPA has a maximum term of 7 years.
  6. PG&E justifies the longer contract term on the basis that Chevron intends to build up to 28 MW of new CHP capacity at the Richmond facility.
  7. The Richmond PPA does not specify that a defined number of new CHP MW will be built; it only specifies that up to 28 MW of new CHP capacity may be built.
  8. Settlement Term Sheet Section 5.2.5 requires that the capacity of a new CHP facility to be used to count progress toward the MW targets will be established by a Capacity Demonstration Test.
  9. PG&E is not permitted to count new CHP MW toward its CHP MW target prior to completion of a Capacity Demonstration Test on those new MW.
  10. The Commission has no basis for calculating GHG reductions toward the Settlement Emissions Reduction Target until it is known how many MW of new CHP will be constructed as a result of the Richmond PPA.
  11. The Commission will determine whether and how to count new CHP MW and GHG emissions reductions toward the CHP Settlement targets when PG&E submits the results of a Capacity Demonstration Test via Tier 2 Advice Letter.
  12. The costs of the Richmond PPA are reasonable compared with the cost of the legacy PPA that it replaces.
  13. The existing generating units at the Richmond facility meet the state's definition of a CHP facility.
  14. The Commission will make a determination as to whether the new generation units meet the Settlement CHP/QF definition at the time PG&E submits the results of the Capacity Demonstration Test.
  15. The Richmond PPA includes safeguards to ensure that the operation of the new and existing generating facilities will not result in any adverse safety impacts to the public or Chevron's employees.
  16. PG&E's cost recovery proposal for the Richmond PPA is reasonable.
  17. The Emissions Performance Standard does not apply to the Richmond PPA because its annualized plant capacity factor is expected to be significantly less than 60 percent.

18. The proposal to include within the Richmond PPA an option for Chevron to sell the output from an 8 MW solar PV facility to PG&E at the “brown power” price is reasonable.
19. In its execution of the Richmond PPA, PG&E has complied with the Commission’s for consultation with the Procurement Review Group and Independent Evaluator.

**THEREFORE IT IS ORDERED THAT:**

1. The request of Pacific Gas & Electric Company for authority to execute the Richmond Power Purchase Agreement with Chevron U.S.A. and the associated cost-recovery proposal described in Advice Letter AL 4351-E is approved.
2. The request of Pacific Gas & Electric Company to count toward its Settlement targets 27.85 Megawatts of incremental capacity and 39,644 metric tonnes of Greenhouse Gas Emissions Reductions is denied.
3. Pacific Gas & Electric Company shall submit via a Tier 2 Advice Letter with the results of a Capacity Demonstration Test showing the megawatt capacity of new generating units at the Richmond refinery, and PG&E may request permission to count the MW and greenhouse gas Emissions Reductions from the new units at that time.

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 June 26, 2014; the following Commissioners voting favorably thereon:

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PAUL CLANON  
Executive Director

