

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

**ALTERNATE RESOLUTION E-4529**

**July 25, 2013**

**REDACTED**  
**RESOLUTION**

**Resolution E-4529.** Pacific Gas and Electric Company (“PG&E”) requests the Commission approve the Confirmation for Resource Adequacy Capacity Product that PG&E has executed with Calpine Energy Services, L.P.

**PROPOSED OUTCOME:** This Resolution rejects, in its current form, PG&E’s Confirmation for Resource Adequacy (“RA”) Capacity Product, which is an Agreement for Combined Heat and Power Resource Adequacy Capacity Product for 280.5 MW of combined heat and power resource adequacy capacity associated with the Los Medanos Energy Center. The Resolution provides guidance to PG&E for potential modifications to the Agreement which the Commission would approve in a subsequent Tier 1 Advice Letter filing, and provides additional guidance to PG&E for Combined Heat and Power solicitations in the future.

**SAFETY CONSIDERATIONS:** As an existing and operational facility, there are no incremental safety implications associated with this contract beyond the status quo.

**ESTIMATED COST:** None.

By Advice Letter 4074-E filed on July 2, 2012.

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**SUMMARY**

Pacific Gas and Electric Company’s (“PG&E’s”) Confirmation for Resource Adequacy (“RA”) Capacity Product, which is a capacity-only Power Purchase Agreement (“PPA”) with Calpine Energy Services, L.P. (“Calpine” or “Seller”) for 280.5 megawatts (“MWs”) of capacity associated with the Los Medanos Energy Center (“LMEC Agreement”), is consistent with the requirements of the

Combined Heat and Power Request for Offer (“CHP RFO”) competitive solicitation under the Qualifying Facility and Combined Heat and Power Program Settlement Agreement (“QF/CHP Settlement”).

However, directs in this Resolution for subsequent CHP solicitations. For the second CHP RFO and any subsequent RFOs, the Commission directs that no RA-only bids shall be accepted.

For contracts signed as a result of the first CHP RFO, the Commission recognizes that a Commission interpretation of the QF/CHP Settlement requirements was not yet available, and therefore Calpine, and any other bidder, relied on the utilities’ acceptance of RA-only bids as eligible in the first solicitation. Thus, this Resolution acknowledges that a reasonable compromise is necessary to address RA-only contracts successful during the first solicitation.

This Resolution offers PG&E several options for renegotiating the instant LMEC Agreement and resubmitting the contract as Tier 1 Advice Letter for Commission approval, if it complies with one of several options discussed in this Resolution. The contract options available to PG&E that the Commission would accept in a Tier 1 Advice Letter are as follows:

1. A QF/CHP Agreement for RA-only capacity that matches the level of energy output delivered to the LMEC steam hosts, but is otherwise identical to the instant LMEC Agreement.
2. A QF/CHP Agreement for RA-only capacity that matches the level of baseload power output from the LMEC facility, but is otherwise identical to the instant LMEC Agreement.
3. A QF/CHP Agreement for RA-only capacity that is for one half or less of the contracted amount in the instant Agreement (up to no more than 140.25 MW), but is otherwise identical to the instant LMEC Agreement.

## **BACKGROUND**

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

The QF/CHP Settlement establishes MW procurement targets and GHG emissions reduction targets the investor-owned utilities are required to meet by entering into contracts with eligible CHP facilities, as defined in the QF/CHP Settlement. Pursuant to D. 10-12-035, the three large electric IOUs must procure a minimum of 3,000 MW of CHP and reduce 4.8 million metric tonnes (“MMT”) of GHG emissions consistent with the California Air Resources Board (“CARB”) Scoping Plan.

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 certain pro forma PPAs for QFs under 20 megawatts (“MW”), 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.

Per Section 4.2.1 of the Term Sheet, the IOUs are required to conduct RFOs exclusively for CHP resources. Under the QF/CHP Settlement’s purview, PG&E will need to acquire a minimum of 1,387 MW of CHP capacity<sup>1</sup> under power purchase agreements through three RFOs and other procurement alternatives during the Initial Program Period, as defined by the Term Sheet. On December 7, 2011, PG&E issued its first CHP RFO to procure resources counting toward its MW procurement target and to address its GHG Emissions Reduction Target.

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<sup>1</sup> QF/CHP Settlement Term Sheet Section 5.1.

In its first CHP RFO solicitation, PG&E requested offers for existing, new, repowered and expanded CHP facilities, Utility Prescheduled Facilities and CHP capacity-only products. Based on comments received following its CHP RFO Bidders' Conference, PG&E revised its CHP RFO Protocol to accept offers for capacity-only products, provided such capacity comes from an eligible CHP Facility, or from a portion of an eligible CHP Facility. PG&E made it a mandatory requirement for the participants submitting a capacity-only offer to have, or need, an Edison Electric Institute ("EEI") Master Agreement with PG&E and would use a form of the standard Confirmation under an EEI Master Agreement that PG&E had adapted and posted to its CHP solicitation website.

In its RFO, PG&E stated a strong preference for offers that are low cost and that are from facilities with efficient operations and either have low associated GHG emissions or provide GHG emissions reductions through changes in operations or technology. In response to PG&E's CHP RFO, Calpine submitted an offer to provide a capacity-only product from LMEC. PG&E reviewed the merits of each offer received in the CHP RFO and compiled a shortlist of the most attractive offers. On April 30, 2012, PG&E informed Calpine that the LMEC offer was on the shortlist and the parties engaged in negotiations over the terms of the offer. On May 30, 2012, PG&E and Calpine executed the LMEC Agreement for CHP capacity from LMEC.

On July 2, 2012, PG&E filed Advice Letter ("AL") 4074-E requesting Commission approval of a new capacity-only PPA with the Los Medanos Energy Center for sixty months, or five years. The PPA between PG&E and the Seller will become effective upon the approval of this resolution. LMEC is a 561 MW nameplate capacity natural gas topping-cycle combined heat and power facility located in Pittsburg, California. LMEC was self-certified as a Qualifying Facility ("QF") in Federal Energy Regulatory Commission Docket No. QF01-14-000 on October 31, 2000 and is an existing CHP QF. In total, LMEC provides its two thermal hosts an average of approximately 190 MMBtu/hour of steam without seasonal variation. The two thermal hosts, USS-POSCO Industries and Dow Chemical Company, use the steam for process heating at their respective steel mill and chemical processing facilities.

Under the LMEC Agreement, PG&E contracted for 280.5 MWs of LMEC's available 561 MW of total capacity. PG&E thus argues that the LMEC Agreement contributes 280.5 MW towards the MW target assigned to PG&E under the QF/CHP Settlement. The MW accounting rules that apply to LMEC can be found

in Section 5.2.3.2 of the QF/CHP Settlement Term Sheet (“Term Sheet”). The LMEC facility will count as neutral (0) with respect to PG&E’s Greenhouse Gas (“GHG”) Emissions Reduction Target of 1.96 MMTCO<sub>2</sub>e. The calculation metrics behind the LMEC facility’s GHG accounting can be found in the Term Sheet Section 7.3.3.1, which states that an Existing CHP facility with no change in operations, such as LMEC, “is neutral for GHG accounting purposes.”

LMEC has been operating since July 2001 and thus has over ten years of experience operating as a CHP facility. Although it has sold to Investor Owned Utilities (“IOUs”) previously, it was not listed in any of the Cogeneration and Small Power Production Semi-Annual Reports of the three IOUs. This is the first capacity-only CHP contract Calpine has signed with PG&E. Under the PG&E-LMEC Agreement, PG&E will purchase the CHP Attributes, RA Attributes, Local RA Attributes, and the Capacity Attributes of the LMEC generating facility. These products will be used for compliance with the Commission’s RA program. The RA program ensures the availability of sufficient resources to reliably serve customer load.

In filing Advice 4074-E, PG&E provided multiple confidential appendices detailing the pricing terms and conditions for the LMEC facility’s capacity-only power purchase agreement. A summary of the capacity-only PPA, pricing details, and an analysis of the benefits can be found in the Confidential Appendix A of this Resolution.

## **NOTICE**

PG&E declared that a copy of the Advice Letter 4074-E was mailed and distributed in accordance with Section IV of General Order 96-B. PG&E sent the Advice Letter electronically and via U.S. mail to the parties on the service list for R.10-05-006, which was the Commission’s Rulemaking to Integrate and Refine Procurement Policies and Consider Long-Term Procurement Plans.

## **PROTESTS**

Advice Letter 4074-E was timely protested by Shell Energy North America (US), L.P. (“Shell Energy”), the Marin Energy Authority (“MEA”), and the Alliance for Retail Energy Markets (“AREM”), collectively (“Joint Parties”) on July 23, 2012. PG&E filed a response to the protest of the Joint Parties on July, 30, 2012. The Joint Parties protested the LMEC Advice Letter for two reasons: (1) the QF/CHP Settlement Agreement does not contemplate or permit “capacity-only” contracts with CHP facilities; (2) PG&E’s proposed allocation of a portion of the

Resource Adequacy (“RA”) capacity (and associated RA capacity costs) from the LMEC Agreement to direct access (“DA”) and community choice aggregation (“CCA”) customers through the cost allocation mechanism (“CAM”) was not approved in D.10-12-035,<sup>2</sup> which adopted the QF/CHP Settlement.

Joint Parties’ First Claim: the QF/CHP Settlement Agreement does not contemplate or permit “capacity-only” contracts with CHP facilities.

In their protest the Joint Parties stated that the QF/CHP Settlement did not contemplate or permit capacity-only contracts. The Joint Parties also stated that LMEC should not have been a part of PG&E’s CHP RFO and instead should have bid into PG&E’s all source solicitation, competing with other RA capacity-only products. In addition, the Joint Parties indicated that PG&E revised its CHP RFO protocol to accept offers for capacity-only products, and that procurement of capacity-only product provides no CHP energy deliveries or GHG emissions reduction benefits. Due to the various reasons mentioned above, the Joint Parties respectfully requested the Commission to reject AL 4074-E.

In its response to the Joint Parties, PG&E stated that because the QF/CHP Settlement provided each IOU with multiple procurement pathway options to meet their respective MW and GHG targets, PG&E included a capacity-only product in the scope of its CHP RFO. PG&E also stated that the LMEC Agreement for RA capacity is a resource that can be procured through PG&E’s CHP RFO to meet its CHP MW target; accordingly, the QF/CHP Settlement requires PG&E to allocate its RA benefits and costs to DA and CCA customers through a CAM-like ratemaking mechanism. PG&E added that the fact that the net capacity cost of a capacity-only contract is equal to the contract price does not obviate the need or undermine the ability to allocate the contract costs to DA and CCA customers. For all the reasons mentioned above, PG&E asked that the Joint Parties protest be rejected.

We address the Joint Parties’ first claim in the “Discussion” section below.

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<sup>2</sup> D.10-12-035, as modified by D. 11-03-051 and D.11-07-010.

Joint Parties' Second Claim: CAM treatment cannot be afforded to a capacity-only contract

The Joint Parties stated that unless a contract includes costs for both energy and capacity-related products, a "net capacity cost" cannot be calculated and cannot be subject to the CAM to which CCAs and ESPs are subject. The Joint Parties claim that PG&E may not use the CAM for allocating the cost of the LMEC Agreement because there is no way to determine if the capacity costs to be imposed under this contract reflect a reasonable netting of energy and ancillary services.

In its response PG&E defined the net capacity costs of the CHP Program as "the total costs paid by the IOU under a contract less the value of energy and ancillary services supplied to the IOU under the contract". PG&E further explained that under the LMEC Agreement, it receives no energy or ancillary services; therefore, the value of energy and ancillary services supplied is zero. As a result, the net capacity costs of the LMEC agreement are equal to the total costs of the contract.

We discuss the Joint Parties' second claim in the "Discussion" section below.

**DISCUSSION**

On July 2, 2012, PG&E filed Advice Letter AL 4074-E requesting Commission approval of the Confirmation for Resource Adequacy Capacity Product, which is a capacity-only PPA for 280.5 MWs of capacity associated with the Los Medanos Energy Center ("LMEC Agreement").

Specifically, PG&E requests that the Commission:

1. Approve the LMEC Agreement with Calpine in its entirety, including payments to be made thereunder, subject only to Commission review of the reasonableness of PG&E's administration of the contract.
2. Determine that the rates and other terms and conditions set forth in the LMEC Agreement are reasonable.
3. Find that the 280.5 megawatts ("MW") associated with the LMEC Agreement apply toward PG&E's procurement target of 1,387 MW

of CHP capacity in the Initial Program Period, as established by the QF/CHP Settlement.

4. Find that LMEC is neutral towards the GHG Emissions Reduction Target.
5. Find that PG&E's costs under the LMEC Agreement shall be recovered through PG&E's Energy Resource Recovery Account ("ERRA").
6. Adopt the following finding of fact and conclusion of law in support of cost recovery for the LMEC Agreement:
  - a. PG&E shall be entitled to allocate the net capacity costs and associated RA benefits 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
  - b. The net capacity costs of the LMEC Agreement will and recovered through PG&E's New System Generation Balancing Account ("NSGBA") from all benefiting customers.
  - c. Actual LMEC Agreement costs will be recovered through ERRA, less net capacity costs recovered in the NSGBA.
7. Find that the LMEC Agreement is not covered procurement subject to the EPS under Public Utilities Code section 8340, et seq. because the generating facility was in operation as of June 30, 2007 and therefore does not violate the Emissions Performance Standard ("EPS") adopted in R.06-04-009.

**The Commission evaluated the LMEC PPA based on the following criteria:**

- Consistency with D.10-12-035 which approved the QF/CHP Settlement including:
  - Consistency with CHP RFOs, eligibility requirements
  - Consistency with MW accounting
  - Consistency with GHG accounting
  - Consistency with cost recovery requirements



- The need for LMEC's procurement
- Cost reasonableness
- Project viability
- Consistency with the Emissions Performance Standard
- Consistency with D.02-08-071, which requires Procurement Review Group (PRG) participation

In considering these factors, the Commission also considers the analysis and recommendations of an Independent Evaluator, if available.<sup>3</sup> In this case, we have reviewed and weighed the conclusions from the IE report in determining the outcome of this resolution.

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

On December 16, 2010, the Commission adopted the QF/CHP 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 QF contracts. Among other things, it establishes methodologies and formulas for calculating SRAC to be used in new QF Standard Offer contracts. Furthermore, the Settlement allows for bilaterally negotiated contracts with QFs to determine alternative 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 3,000 MW of CHP and 4.8 MMT of greenhouse gas emission reductions in proportion to the load of the IOU and non-IOU Load Serving Entities. The QF/CHP Settlement became effective on November 23, 2011. In evaluating the consistency of the LMEC agreement, we have considered consistency with the CHP RFO eligibility requirements, MW accounting, GHG accounting and cost recovery.

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<sup>3</sup> Per Settlement Term Sheet 4.3.2: "Use of an IE shall be required 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."

***Consistency with CHP Requests for Offers (CHP RFOs) - Capacity-Only PPA***

Per Section 4.2 of the Settlement Term Sheet, the IOUs are directed to conduct Requests for Offers for CHP resources as a means of achieving their respective MW and GHG Emissions Reduction Targets. Per Section 4.2.2, CHP facilities with a nameplate Power Rating of greater than 5 MW may bid into the CHP RFO. In addition, the CHP facility must meet the State and Federal definitions<sup>4</sup> for cogeneration and the Emissions Performance Standard.

The LMEC facility is eligible to participate in the CHP RFO per the Term Sheet Section 4.2.2.1 for the following reasons: With an operating capacity of 561 MW, LMEC exceeds the 5 MW threshold; LMEC satisfies the definition of “CHP Facility” in the LMEC Agreement; LMEC self-certified itself as a QF with FERC.

As a condition of the LMEC Agreement, Calpine covenants that LMEC is a CHP Facility, as defined, as of the agreement’s Effective Date; the LMEC Agreement also provides that if LMEC is unable to maintain Qualifying Cogeneration Facility status because it has lost its steam host, PG&E will have the option to terminate the agreement.

As an eligible QF CHP resource per Section 4.2.2 of the Term Sheet, LMEC successfully bid into PG&E’s CHP RFO as a qualifying CHP facility, was shortlisted and selected as a successful bid in PG&E’s competitive CHP solicitation. For these reasons, we find the LMEC agreement consistent with the requirements for CHP eligibility, granting LMEC the ability to participate in the utility’s CHP requests for offers.

In their protest, the Joint Parties raise a number of arguments for why RA-only contracts are ineligible under the QF/CHP Settlement. Each of these arguments is identified below along with a response.

*Joint Parties’ Claim #1: The settlement does not expressly indicate that capacity-only contracts are allowed. Capacity only contracts should not be considered under the Settlement because this type of contract was never anticipated.*

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<sup>4</sup> 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.

The Joint Parties are correct that capacity-only contracts were not expressly called for under the terms of the Settlement Agreement. They also were not expressly prohibited..

We take this opportunity to address the Settlement Agreement as it applies to future RFOs conducted for CHP. We will then turn to the consequences of this interpretation for contracts that emerged from the first RFO, such as the instant LMEC contract at issue in this Resolution.

Going forward, The Commission does not intend to approve solicitations and contracts that are brought forward as CHP capacity-only in the context of the QF/CHP Program. The reasons for this are multi-faceted. The most important reason is that a Resource Adequacy program already exists for capacity-only resources seeking revenues from utilities. The purpose of the RA program is to provide available capacity to utilities for reliability purposes.

The purpose of the QF/CHP program is altogether different. The QF/CHP settlement was designed to provide opportunities to CHP facilities whose primary, if not exclusive, purpose is to provide energy and heat to a host industrial facility, while also remaining interconnected to the grid and available to provide some benefits to the utilities.

Previous to the QF/CHP Settlement Agreement, CHP facilities in California relied on a must-take obligation on the part of the utilities under the terms of Federal Law (PURPA). In the context of the Settlement Agreement, those CHP parties agreed to remove the must-take obligation voluntarily in return for certain opportunities to bid in CHP-only RFOs. The CHP-only RFOs were intended to be an opportunity for like CHP resources to compete. The majority of CHP facilities may have some marginal flexibility to offer RA-only or ancillary services products to the grid, but the majority of their capacity and energy is devoted to their industrial host. Clearly, there are some exceptions to this, such as the Calpine facility at issue in this resolution, but it is not the majority of CHP facilities that have the ability to provide the majority of their capacity as RA-only. Thus, the Commission wishes to target the CHP RFOs to be designed to work for the majority of CHP facilities for which the Settlement Agreement was intended to meet their needs to cover their steam hosts while also providing some electricity to the grid.

In addition to this basic policy reasoning, the Commission also finds that the Settlement Agreement did already explicitly contemplate some type of option for RA-only contracts that might result from the CHP solicitations. The Settlement Agreement defines Utility Pre-Scheduled Facilities (UPFs). The overall purpose of the Settlement Agreement convinces us to deny the opportunity to contract for capacity-only contracts resulting from the Settlement that are not UPFs, going forward.

It would have been preferable for the Commission to have identified and ruled explicitly on eligibility of capacity-only contracts prior to the completion of the first RFO. In general, we are reluctant to modify terms of competitive solicitations after they have been completed. We value certainty in commercial transactions and regret the situation we now find ourselves in.

To mitigate this situation, we offer PG&E the following guidance for compromise options that we would accept and approve. Should PG&E and Calpine choose one of these options, PG&E is required to submit a revised Agreement within 30 days of the adoption of this Resolution as a Tier 1 Advice Letter.

*Option 1*

PG&E and Calpine may restructure the Agreement for RA-only capacity that matches the level of energy output delivered to the LMEC steam hosts. This would reduce the number of MW to be commensurate with the level of thermally-matched CHP, but would otherwise be identical to the instant LMEC Agreement.

*Option 2*

PG&E and Calpine may restructure the Agreement for RA-only capacity that matches the level of baseload power output from the LMEC facility. This would reduce the number of MW to be commensurate with the level of baseload power output typical for the facility, but would otherwise be identical to the instant LMEC Agreement.

*Option 3*

PG&E and Calpine may restructure the Agreement for RA-only capacity that is for one half or less of the contracted amount in the instant Agreement (up to no more than 140.25 MW). This would also reduce the number of MW, but would otherwise be identical to the instant LMEC Agreement.

In the case of the three options above, the terms of the amended or renegotiated Agreement would be identical to the instant LMEC Agreement, except for the amount of MW procured. Therefore, we make additional findings in this Resolution that would apply to those Options, should PG&E and Calpine choose to exercise one of them, and bring back an amended Agreement for our consideration. Option 3 indicates the maximum procurement amount PG&E is authorized to procure and count toward the obligation regardless of which Option is executed:

We reject the current form of the LMEC Agreement in this Resolution. We also prohibit RA-only solicitations and contracts as part of the QF/CHP RFOs in future solicitations, including PG&E's current second RFO currently open.

*Joint Parties' Claim #2: As a capacity-only contract, the project does not provide any GHG benefits and so is inconsistent with the Settlement given the GHG reduction targets the IOUs are required to meet.*

Joint Parties are correct that the Settlement includes both MW and GHG targets, however the fact that a given contract does not contribute toward the GHG goals does not render a project ineligible to participate in, or inconsistent with the Settlement. The Settlement specifically includes projects that do not contribute toward the GHG targets because one of the goals is to ensure the continued operation of existing CHP facilities. Section 7.3.3 of the QF/CHP Settlement Term Sheet enumerates the project types/circumstances whereby a given project is treated as neutral for GHG accounting purposes under the Settlement. The underlying facility in the instant case would be treated as neutral for GHG accounting purposes as an existing CHP facility with no change in operations, pursuant to Section 7.3.3.1 of the Term Sheet, irrespective of whether the contract included the sale of energy and/or ancillary services. In other words, even if the contract included sale of energy or ancillary services, it would have been neutral for purposes of GHG accounting under the Settlement.

While IOUs are required to procure GHG reductions as part of the QF/CHP Settlement Agreement, not all contracts must deliver GHG benefits to be eligible for approval.

*Joint Parties' Claim #3: CAM treatment, involving the allocation of Net Capacity Costs, cannot be applied to an RA only contract because these contracts offer no energy or ancillary service value.*

The fact that the energy value and ancillary service value under the contract are equal to zero does not mean the net capacity cost cannot be calculated. Rather it simply means the net capacity cost equals the contract cost. Pursuant to the QF/CHP Settlement, the net capacity costs of this contract should be allocated pursuant to the cost allocation rules defined in Section 13.1.1 of the QF/CHP Settlement Term Sheet.

This argument seems to suggest that the ability to calculate a “net” value requires that any elements that are being netted out to have non-zero values. This argument appears to fly in the face of basic algebra. In the case of the Net Capacity Cost calculation, Section 13.1.2.2 of the Term Sheet states, “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”. Mathematically, this would be represented as follows:

$$\text{NCC} = \text{TCC} - \text{E} - \text{AS}$$

Where:

NCC = Net Capacity Cost

TCC = Total Contract Cost

E = Energy Value

AS = Ancillary Service Value

If the Energy Value and the Ancillary Service Value are both equal to zero, this equation resolves to:

$$\text{NCC} = \text{TCC}$$

In other words, the Net Capacity Cost can be calculated, it just happens to be equal to the Total Contract Cost in this instance. Thus, CAM treatment may be applied to capacity-only CHP contracts.

The CHP settlement specifies that when facilities are contracted via non-RPS contracting vehicles available in the settlement, the costs and benefits of those contracts are to be allocated to all benefitting customers. This in general refers to the Cost Allocation Mechanism (CAM) process that the Commission uses when contracting for system capacity that will help overall system reliability.

***Consistency with MW accounting - Capacity-Only CHP PPA***

Per Section 5.2.3.2 of the Term Sheet, the MW accounting for CHP PPAs executed with QFs who formerly sold to the IOUs and were never listed in any QF Semi-Annual Report will be based on the contract nameplate in the most recent QF or CHP PPA. On October 12, 2006, PG&E and Calpine executed a previous RA Confirmation Agreement for LMEC listing the contract quantity, though not the contract nameplate, as 560 MW. Pursuant to this 2006 Confirmation Agreement, Calpine formerly sold a Resource Adequacy Capacity Product to PG&E between 2008-2011. While LMEC's gross nameplate is 620.3 MW, the maximum operating capacity, or "PMax," is 561 MW. LMEC's Reportable Capacity, based on the facility's maximum operating capacity, is 561 MW. Since PG&E would only be purchasing 50% of the facility's capacity, 280.5 MW (i.e.,  $.5 \times 561 \text{ MW} = 280.5 \text{ MW}$ ) of this CHP-eligible facility would count toward PG&E's MW Target.

After reviewing PG&E's LMEC entry into the QF/CHP reporting template, staff determined that the MW accounting for the LMEC facility is consistent with the MW accounting methodology set forth by the QF/CHP Settlement.

If PG&E and Calpine negotiate a revised Agreement for the purchase of half or less of the MW of the current Agreement and resubmit the contract as a Tier 1 Advice Letter, pursuant to the QF/CHP Settlement Term Sheet Section 5.2.3.2, the contracted MW from the LMEC facility shall count toward PG&E's CHP MW targets.

***Consistency with Greenhouse Gas accounting - Capacity-Only CHP PPA***

As noted above, Section 7.3.3.1 of the QF/CHP Settlement Term Sheet states: "Existing CHP Facility with no change in operations: Regardless of contract status (i.e., a new PPA with an Existing CHP Facility or one that sells to the market) the CHP Facility is considered neutral for GHG accounting purposes." As an existing CHP facility, LMEC would be counted as a "GHG neutral" CHP

facility for GHG accounting purposes under the QF/CHP Settlement. In accordance with the QF/CHP reporting template, the LMEC facility would not count towards PG&E's GHG goals as set forth by the QF/CHP settlement.

This contract, or any other renegotiated capacity-only contract for LMEC described in the options above, does not contribute to PG&E's GHG Emissions Reduction Target, because the underlying facility is an existing CHP facility with no change in operations, which, under the Settlement is counted as GHG neutral.

### *Consistency with cost recovery requirements*

In D.10-12-035, Ordering Paragraph 5, the Commission ordered the IOUs to purchase CHP resources on behalf of the Electricity Service Providers and Community Choice Aggregators. Given this, Section 13.1.2.2 of the Term Sheet, directs the IOUs to QF/CHP Settlement 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. Section 13.1.2.2 goes on to define how Net Capacity Costs are calculated and directs that LSEs serving DA and CCA load should receive a pro-rata share of the RA credits procured via the CHP Program.

It is also worth noting that all LSE's, serving the benefiting customers, would also be allocated a portion of RA credit commensurate to the proportion of the net capacity costs that they pay as required by the terms of Section 13.1.2.2.

If a subsequent LMEC Agreement is being entered into pursuant to the terms of the QF/CHP Settlement, and in order to satisfy the QF/CHP Settlement requirements for MW Targets which includes procurement on behalf DA and CCA customers, it is appropriate that the costs associated with the agreement be allocated consistent with Section 13.1.2.1 of the QF/CHP Settlement Term Sheet.

In its AL filing 4074-E, PG&E proposed that the net capacity costs associated with the LMEC Agreement be proportionately allocated annually to all bundled, DA, CCA, and specified Departing Load Customers and be collected on a non-bypassable basis. Staff finds this would be reasonable as the net capacity costs incurred will be billed via PG&E's CAM rate and recovered through PG&E's NSGBA from all benefiting customers (i.e., bundled, DA, CCA, and other nonexempt departing load customers). In addition to this proportionate allocation of costs, PG&E would also proportionately allocate all RA benefits



associated with the LMEC Agreement to bundled, DA, CCA and other nonexempt departing load customers. This appears consistent with the requirements of Section 13.1.2 of the Term Sheet.

In AL 4074-E, PG&E requested that all costs associated with the LMEC Agreement be recoverable through its Energy Resource Recovery Account ERRA. This request appears consistent with AL-3922-E, approved by the Commission in November, 2011, which authorized PG&E to establish the New System Generation Balancing Account (“NSGBA”) to recover the net capacity costs of CHP contracts as it was directed by D.10-12-035.

PG&E’s request to recover costs in accordance with Section 13.1.2.2 of the Term Sheet and AL-4074-E would be consistent with the directives of the QF/CHP Settlement, as long as PG&E and Calpine renegotiate an amended Agreement consistent with the options described above.

### **Need for Procurement**

Per the Settlement Term Sheet Section 5.1.2, PG&E’s MW procurement goal for Target A is 630 MW. As of PG&E’s October, 2012 CHP Semi-Annual Report filing, PG&E has procured 783 MW<sup>5</sup> and 814,817 MT of GHG Reductions towards its targets. Thus, PG&E is over-procured by 153 MW beyond its Target A goal of 630 MW and there is no immediate need to procure LMEC for PG&E’s Target A goals. Although nothing precludes the IOUs from exceeding their Target A capacity amounts, the size of the instant LMEC contract and the amount it would additionally contribute to PG&E’s over-procurement is excessive.

PG&E does not need the instant LMEC Agreement to meet its CHP MW targets at this time.

### **Cost reasonableness**

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<sup>5</sup> The 783 MWs of CHP includes non-CPUC approved contacts, since the Settlement Term Sheet Section 8.2.2 states that the reporting template includes all executed contacts with the IOU.

Although LMEC has sold to IOUs previously, the facility was not listed in any of the Cogeneration and Small Power Production Semi-Annual Reports of the three IOUs. Therefore, comparison to a previous PPA is not applicable in terms of ascertaining the cost reasonableness of the LMEC agreement. The current LMEC offer, in terms of cost per MW, was one of the most competitive bids received in PG&E's CHP RFO, which is likely due to its capacity-only nature, since the comparison group mostly consisted of bids for both energy and capacity. Based solely on the basis of cost per MW, the LMEC Agreement costs are deemed to be reasonable.

PG&E's IE concludes that the evaluation methodology used to evaluate the cost and benefits of the LMEC agreement is reasonable for this type of analysis and effectively evaluates offers with different products, terms, and contract structures. The IE found no evidence of bias in the evaluation methodology as a result of review of the model operation.

Since the LMEC Agreement does not provide any GHG value towards PG&E's GHG targets, our cost reasonableness evaluation does not include any GHG element that may have been included with the PPA.

The PG&E CHP RFO Protocol identifies and describes the procedures for evaluation of offers. To evaluate offers, PG&E considered the factors listed below. The protocol states that in its evaluation of offers, PG&E may combine Market Value, Portfolio Fit, and other evaluation criteria to determine a Portfolio Adjusted Value. PG&E also considered the debt equivalence costs of an offer in its evaluation. The evaluation criteria listed in the Protocol include:

- Market Valuation
- Portfolio Fit
- Credit
- GHG Emissions
- Project Viability
- Project Technical Reliability
- Adherence to Applicable Form PPA
- Supplier Diversity

Upon receiving the bids in its CHP RFO, PG&E ranked the values based on its specific evaluation metrics. Based on their relative ranking, selected offers were shortlisted, and offers were awarded to the facilities as a result of the competitive solicitation.

For additional information on the contract cost reasonableness, please refer to Confidential Appendix A.

If PG&E and Calpine renegotiate the Agreement according to one of the options described above and the per-MW capacity costs do not change, the costs of the Agreement will be deemed reasonable.

### **Project Viability**

Los Medanos Energy Center is an existing qualifying facility that has operated since 2001 and is interconnected to the CAISO-controlled grid at the transmission level. As an existing QF, the project faces minimal to no project development risk. According to PG&E, no project development is expected or planned since the LMEC is an existing facility.

Los Medanos Energy Center is an existing CHP facility with a proven history of performance and therefore is a viable 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 Sections 4.10.4.1 of the CHP Program Settlement Term Sheet, PPAs greater than five years that are submitted to the CPUC in a Tier 2 or Tier 3 advice letter must be 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 greater than 60 percent.

In D.07-01-039, the Commission adopted a GHG EPS which is applicable to a contract for base load generation, as established by SB 1368 and defined in D.07-01-039, having a delivery term of five years or more. All combined-cycle natural gas power plants that were in operation as of June 30, 2007 are deemed to be in compliance with the EPS.<sup>6</sup> The LMEC facility is “deemed to be in

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<sup>6</sup> D.07-01-039, pp. 4-5.

compliance” with the EPS per D.07-01-039 Finding of Fact 16, as it is a combined-cycle natural gas facility that was in operation prior to June 30, 2007.

The capacity-only LMEC PPA is not subject to the EPS under D.07-01-039 as it was deemed to be compliant with the EPS, as it is a combined-cycle natural gas facility that was in operation prior to June 30, 2007.

**Consistent with D.02-08-071, PG&E’s Procurement Review Group (“PRG”) was notified of the Capacity-Only PPA.**

PG&E’s PRG consists of representatives from: the Division of Ratepayer Advocates, The Utility Reform Network, California Department of Water Resources, Coalition of California Utility Employees, PG&E’s Independent Evaluators, and the Commission’s Energy and Legal Divisions.

Negotiations on the LMEC PPA between Seller and PG&E began in April 30, 2012 and were completed on May 30, 2012. PG&E presented its CHP RFO at four meetings: July 12, 2011 to the PRG, November 8, 2011 to the PRG and CAM Group, December 13, 2011 to the PRG, and February 28, 2012 to the PRG and CAM Group. On April 25, 2012, the LMEC transaction was presented as part of the CHP RFO shortlist to PG&E’s PRG and CAM Group. A description of the transaction was subsequently circulated for comment by email to the PRG and CAM Group on May 25, 2012. There were no comments raised by members of the PRG or CAM Group on the LMEC transaction.

PG&E has complied with the Commission’s rules for involving the PRG. Should PG&E choose to renegotiate the LMEC Agreement according to any options provided for in this Resolution, PG&E is not required, though is encouraged, to consult with its PRG again prior to submitting an amended Agreement.

**Independent Evaluator Review**

PG&E retained Independent Evaluator (IE) Merrimack Energy Group, Inc (“Merrimack Energy”) to oversee the filing of Advice 4074-E and to evaluate the overall merits for Commission approval of the LMEC Agreement. AL 4074-E

included a public and confidential Independent Evaluator's report. In its report, the IE determined that<sup>7</sup>:

1. PG&E provided adequate outreach to potential sellers,
2. The CHP RFO evaluation and selection methodology was appropriate,
3. Administration of the offer evaluation process was just and fair,
4. Treatment of affiliate bids were handled properly,
5. The need for procurement was reasonable in achieving the settlement goals

The IE concluded that PG&E selected the appropriate bids from the CHP RFO and acted without prejudice and therefore, recommends Commission approval of LMEC PPA. While the IE's non-confidential observations and commentary are interspersed across the relevant portions of the public version of the resolution, more information on the findings of the IE Report is included in Confidential Appendix A.

The Independent Evaluator concurs with PG&E's decision to execute the LMEC Agreement with Calpine Energy Services, L.P. and finds that the LMEC PPA merits Commission approval. C

## **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.

We received comments from Pacific Gas & Electric, CCC, CAC, MEA, Shell, Calpine, and IEP on the draft resolution. Several issues were raised and taken into considerations, with some modifications from the original draft of the resolution included in this version.

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<sup>7</sup> Pacific Gas and Electric Company Combined Heat and Power Request for Offers for First Solicitation 2011 - 2012, June 29, 2012, p.1.

## **FINDINGS AND CONCLUSIONS**

1. The LMEC facility is an eligible CHP resource with two steam hosts; is a CHP with a nameplate capacity larger than 5 MW; meets the definition of cogeneration facility under California Public Utilities Code §216.6; meets the federal definition of a qualifying cogeneration facility under 18 CFR §292.205 implementing PURPA; and meets the Emissions Performance Standard established by Public Utilities Code §8341 (Senate Bill 1368).
2. Pursuant to the QF/CHP Settlement, Section 4.2.2, capacity-only products are not expressly prohibited from competing in CHP-only RFOs. They are not expressly invited either.
3. A provision for Utility Prescheduled Facilities is expressly provided for in the QF/CHP Settlement Agreement and is designed for capacity-only contracts from such facilities.
4. For CHP RFOs after the first RFO, the Commission should prohibit capacity-only contracts from bidding, other than as Utility Prescheduled Facilities, because other revenue opportunities exist besides the CHP program for RA-only contracts.
5. The current LMEC Agreement in Advice Letter 4074-E should be rejected because it would occupy too many reserved CHP MW with a capacity-only contract, removing opportunities for other CHP facilities to provide benefits to PG&E.
6. The Commission should allow a renegotiated Agreement, consistent with one of the three options outlined below, to be resubmitted to the Commission and approved via a Tier 1 Advice Letter, as long as it conforms to the terms of this Resolution.
  - Option 1: A QF/CHP Agreement for RA-only capacity that matches the level of energy output delivered to the LMEC steam hosts, but is otherwise identical to the instant LMEC Agreement.
  - Option 2: A QF/CHP Agreement for RA-only capacity that matches the level of baseload power output from the LMEC facility, but is otherwise identical to the instant LMEC Agreement.
  - Option 3: A QF/CHP Agreement for RA-only capacity that is for one half or less of the contracted amount in the instant Agreement (up to no more

than 140.25 MW), but is otherwise identical to the instant LMEC Agreement.

7. If PG&E renegotiates an LMEC Agreement consistent with the options outlined in this Resolution, the following findings in this Resolution would apply to such a conforming new Agreement.
  - a. As an existing CHP Facility, per QF/CHP Settlement Term Sheet Section 7.3.3.1, LMEC capacity would not contribute towards PG&E's GHG Targets and is neutral for GHG accounting purposes.
  - b. The number of MW contracted under the amended LMEC Agreement, pursuant to Ordering Paragraph 2, would contribute to the MW target assigned to PG&E under the QF/CHP Settlement.
  - c. The LMEC facility is an existing CHP facility and therefore would be a viable project.
  - d. The terms of the LMEC agreement for a capacity-only PPA would provide the CHP Attributes, the RA Attributes, the Local RA Attributes, and the Capacity Attributes equivalent to the capacity associated with the LMEC Agreement to the ratepayers.
  - e. A capacity-only LMEC PPA is not subject to the EPS under D.07-01-039 as it was deemed to be compliant with the EPS, as it is a combined-cycle natural gas facility that was in operation prior to June 30, 2007.
  - f. PG&E is allowed to allocate the net capacity costs and associated RA benefits 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 December 19, 2011.
  - g. Actual LMEC Agreement costs will be recovered through ERRA, with net capacity costs recovered in the NSGBA being credited to the ERRA.
  - h. PG&E has complied with the Commission's rules for involving the PRG and CAM. Should PG&E renegotiate the LMEC Agreement, they should be encouraged but not required to consult again with their PRG and CAM.
  - i. The Independent Evaluator concurred with PG&E's decision to execute the LMEC Agreement with Calpine Energy Services, L.P. and found that the LMEC PPA merits Commission approval. Should PG&E

renegotiate the LMEC Agreement, as long as the per-MW costs do not increase, they should not be required to subject the amended Agreement to additional IE analysis prior to resubmitting to the Commission.

**THEREFORE IT IS ORDERED THAT:**

1. The request of Pacific Gas and Electric Company in Advice Letter 4074-E for Commission approval of the Los Medanos Energy Center Agreement with Calpine in its entirety is denied.
  - , with Option 3 indicating the maximum procurement amount PG&E is authorized regardless of which Option is executed
  - Option 1: A QF/CHP Agreement for RA-only capacity that matches the level of energy output delivered to the LMEC steam hosts, but is otherwise identical to the instant LMEC Agreement.
  - Option 2: A QF/CHP Agreement for RA-only capacity that matches the level of baseload power output from the LMEC facility, but is otherwise identical to the instant LMEC Agreement.
  - Option 3: A QF/CHP Agreement for RA-only capacity that is for one half or less of the contracted amount in the instant Agreement (up to no more than 140.25 MW), but is otherwise identical to the instant LMEC Agreement.
2. If Pacific Gas and Electric (PG&E) Company renegotiates an amended Agreement with Calpine for the Los Medanos Energy Center consistent with one of the three options outlined in Ordering Paragraph 2, PG&E shall resubmit the amended Agreement via a Tier 1 Advice Letter within 30 days after the approval of this Resolution.
3. The number of MW contracted under a renegotiated LMEC Agreement, pursuant to Ordering Paragraph 2, would contribute to the MW target assigned to PG&E under the QF/CHP Settlement.
4. Pacific Gas and Electric Company is encouraged, but not required, to consult with its Procurement Review Group about any amended Agreement consistent with Order Paragraph 2 prior to submitting an amended Agreement to the Commission via a Tier 1 Advice Letter.



5. If Pacific Gas and Electric Company negotiates an amended Agreement consistent with Ordering Paragraph 2, as long as the per-megawatt cost of the contract is not increased from Advice Letter 4074-E, additional review by an Independent Evaluator is not required.
6. Pacific Gas and Electric Company should not invite any capacity-only contracts in its existing or future Combined Heat and Power solicitations or accept any such contracts in any of its Combined Heat and power solicitations, except as Utility Prescheduled Facilities as defined in the Qualifying Facility/Combined Heat and Power Settlement Agreement adopted in Decision 10-12-035.
7. For any other capacity-only contracts signed by Pacific Gas and Electric Company as a result of their first Combined Heat and Power Requests for Offers required under the Qualifying Facility/Combined Heat and Power Settlement Agreement adopted in Decision 10-12-035, the same options outlined in Ordering Paragraph 2 of this Resolution will be available, if contracts are renegotiated and resubmitted for Commission approval, as applicable.
8. Costs incurred by Pacific Gas and Electric Company pursuant to a renegotiated LMEC Agreement submitted in accordance with Ordering Paragraph 3 are deemed to be reasonable and will be collected through the cost recovery mechanism set forth in D.10-12-035 (as modified by D.11-07-010), Section 13.1.2.2. of the Qualifying Facility/ Combined Heat and Power Settlement Term Sheet.

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 July 25, 2013; the following Commissioners voting favorably thereon:

/s/ Paul Clanon  
PAUL CLANON  
Executive Director

MICHAEL R. PEEVEY  
President  
J.K. SANDOVAL  
CARLA J. PETERMAN  
Commissioners

I dissent.

/s/ MICHEL PETER FLORIO  
Commissioner

I dissent.

/s/ MARK J. FERON  
Commissioner

## Confidential Appendix A

REDACTED