

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298

Tel. No. (415) 703-1691



October 2, 2006

Advice Letter 2897-E

Rose de la Torre  
Pacific Gas & Electric  
77 Beale Street, Room 1088  
Mail Code B10C  
San Francisco, CA 94105

Subject: Request for amendment to long-term procurement plan and resource adequacy filing for compliance to the opinion on remaining Phase 1

Dear Ms de la Torre:

Advice Letters 2897-E is effective September 1, 2006. A copy of the advice letter is returned herewith for your records.

Sincerely,

Sean H. Gallagher, Director  
Energy Division

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<b>REGULATORY RELATIONS</b>	
M Brown	Tariffs Section
R Dela Torre	D Poster
B Lam	S Ramaiya
OCT 10 2006	
Return to	Records
	File
cc to	



**Brian K. Cherry**  
Vice President  
Regulatory Relations

77 Beale Street, Room 1087  
San Francisco, CA 94105

*Mailing Address*  
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Pacific Gas and Electric Company  
P.O. Box 770000  
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415.973.4977  
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September 1, 2006

**Advice 2897-E**  
(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

**Subject: Request for Amendment to PG&E's Long-term Procurement Plan and Resource Adequacy (RA) Filing for Compliance to the Opinion on Remaining Phase 1 Issues -- Submitted Pursuant to Decision 06-07-031**

Public Utilities Commission of the State of California

Pacific Gas and Electric Company (PG&E) hereby submits its amended Long Term Procurement Plan (LTP) to the California Public Utilities Commission (Commission or CPUC) and provides the Commission with details of PG&E's use of RA products.

### **Purpose**

The purpose of this Advice Letter filing is to update PG&E's LTP authorized "List of Products and Transaction Types" to reflect recent CPUC decisions related to the authorized PG&E RA product, as well as to add a new product for trading RA import capacity counting rights. This Advice Letter also is intended to meet the requirements of D.06-07-031 by providing the details on how PG&E will use RA products for 2007 and, where applicable, future periods. PG&E herein provides an updated list of products and transaction types, with definitions, that it intends to use on a going-forward basis.

### **Background**

The CPUC ruled, in Ordering Paragraph 3 of D.06-07-031, as follows:

Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company (the IOUs) are authorized to use resource adequacy (RA) capacity

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Subject: Request for amendment to long-term procurement plan and resource adequacy filing for compliance to the opinion on remaining Phase 1

Dear Ms de la Torre:

Advice Letters 2897-E is effective September 1, 2006. A copy of the advice letter is returned herewith for your records.

Sincerely,

A handwritten signature in black ink, appearing to read "Sean H. Gallagher".

Sean H. Gallagher, Director  
Energy Division

products that meet the terms of this decision for 2007 procurement. The IOUs shall, on or before September 1, 2006, amend their Long Term Procurement Plans to provide details of how they will use RA products in 2007.

PG&E intends to procure RA products to satisfy its 2007 and, consistent with its LTP, future system and local RA requirements. PG&E will include such products in its year-ahead and month-ahead RA compliance filings. The CPUC, in approving AL 2615-E, previously authorized PG&E to procure RA product. In order to reflect the new and updated RA requirements adopted by more recent CPUC decisions<sup>1</sup>, PG&E has updated the definition of the RA product in this advice letter.

PG&E expects that the RA product may continue to evolve with RA Phase 2 and possible future RA proceeding phases; therefore, the definition provided herein is flexible to accommodate such changes. It may be advisable to further update the definition of the RA product to accommodate specific changes, but PG&E anticipates that the definitions provided in this advice letter will remain in effect until such updates are approved, and further anticipates that products meeting the definition incorporated herein and that are approved as part of PG&E's LTP will continue to satisfy the definition of the RA product.

Attachment 1 to this advice letter provides PG&E's List of Products and Transaction Types, which reflects PG&E's update of the RA product definition. PG&E intends to use the sample confirmation for this product included in Attachment 2 on a going-forward basis. This confirmation is based on the RA capacity product developed as part of an RA industry working group effort, which is being lead by Southern California Edison (SCE). PG&E intends to procure RA for 2007 and later periods using this confirmation agreement (or a substantially similar version that contains the required provisions that the CPUC has determined must be included in an RA product). PG&E may also procure RA through other RFOs, generator RFBs and other procurement initiatives, each of which may include a product or products meeting the definition of the RA product as part of a bundle of products. The RA product from such procurement will conform to the CPUC requirements as specified in D.06-07-031.

The list of products and transactions also includes a new product definition to allow trading of RA import capacity counting rights, as permitted by D.06-02-007. This product, the RA Import Capacity Counting Right (RA ICCR) product, was developed by SCE as part of the RA industry working group effort. A sample confirmation for this product is included in Attachment 3. PG&E requests authorization to trade RA import capacity counting rights, consistent with D.06-02-007, as it will create the more efficient RA import market envisioned by that

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<sup>1</sup> Decisions 06-06-064 and 06-07-031.

order. Finally, to ensure the continuity of approved products authorized by the CPUC, we provide a comprehensive, updated list in Attachment 4 that reflects the addition of RA products since the first such product was filed with the CPUC in Advice Letter 2615-E (Updated 2005 Short-Term Procurement Plan), dated January 18, 2005.

### **Protest Period**

Anyone wishing to protest this filing may do so by sending a letter to the address below by **September 21, 2006**, which is 20 days from the date of this filing. The letter must state the grounds upon which the protest is based, including such items as financial and service impact, and should be submitted expeditiously. Protests should be mailed to:

IMC Branch Chief – Energy Division  
California Public Utilities Commission  
505 Van Ness Avenue, 4<sup>th</sup> Floor  
San Francisco, California 94102  
Facsimile: (415) 703-2200  
E-mail: [jjr@cpuc.ca.gov](mailto:jjr@cpuc.ca.gov) and [jjj@cpuc.ca.gov](mailto:jjj@cpuc.ca.gov)

A copy of each protest should also be sent by U.S. Mail, e-mail and facsimile to Mr. Jerry Royer, Energy Division, at the same address provided above. The protest should be sent via both e-mail and facsimile to PG&E, directed to addresses provided below, on the same date that it is mailed or delivered to the Commission.

Pacific Gas and Electric Company  
Attention: Brian K. Cherry  
Vice President, Regulatory Relations  
77 Beale Street, Mail Code B10C  
P.O. Box 770000  
San Francisco, California 94177  
Facsimile: (415) 973-7226  
E-mail: [PGETariffs@pge.com](mailto:PGETariffs@pge.com)

### **Effective Date**

PG&E requests an effective date for this filing of **September 1, 2006**.

### **Notice**

In accordance with General Order 96-A, Section III, Paragraph G, a copy of this advice letter (excluding the confidential appendices) is being sent electronically

and via U.S. mail to parties shown on the attached list, as well as to parties on the service lists for Rulemaking (R.) 05-12-013 and/or R. 04-04-003. Address change requests should be directed to Rose De La Torre at (415) 973-4716 (RxDd@pge.com). PG&E's Advice letter filings can also be accessed electronically at:

<http://www.pge.com/tariffs/>

Handwritten signature of Brian K. Cheyette in black ink.

Vice President, Regulatory Relations

cc: Service List - R.05-12-013, R.04-04-003

Attachment 1: List of RA Products and Transaction Types

Attachment 2: Sample Confirmation – Resource Adequacy Capacity Product for CAISO Resources

Attachment 3: Sample Confirmation – Import Capacity Counting Right

Attachment 4: CPUC Approved Products, Updated for Resource Adequacy

# 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 U39M

Utility type:

ELC       GAS  
 PLC       HEAT       WATER

Contact Person: Megan Hughes

Phone #: (415) 973-1877

E-mail: MEHr@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) #: 2897-E

Subject of AL: Request for Amendment to PG&E's Long-term Procurement Plan and Resource Adequacy (RA) Filing for Compliance to the Opinion on Remaining Phase 1 Issues -- Submitted Pursuant to Decision 06-07-031

Keywords (choose from CPUC listing): Resource Adequacy

AL filing type:  Monthly  Quarterly  Annual  One-Time  Other \_\_\_\_\_

If AL filed in compliance with a Commission order, indicate relevant Decision/Resolution: D. 06-07-031

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL

Summarize differences between the AL and the prior withdrawn or rejected AL<sup>1</sup>:

Resolution Required?  Yes  No

Requested effective date: 9-1-2006

No. of tariff sheets: 0

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:

Service affected and changes proposed<sup>1</sup>: See Advice Letter

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

**Protests 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:**

CPUC, Energy Division  
Attention: Tariff Unit  
505 Van Ness Ave.,  
San Francisco, CA 94102  
jjr@cpuc.ca.gov and [jinj@cpuc.ca.gov](mailto:jinj@cpuc.ca.gov)

Utility Info (including e-mail)  
Attn: Brian K. Cherry  
Director, Regulatory Relations  
77 Beale Street, Mail Code B10C  
P.O. Box 770000  
San Francisco, CA 94177  
E-mail: [PGETariffs@pge.com](mailto:PGETariffs@pge.com)

<sup>1</sup> Discuss in AL if more space is needed.

**Attachment 1**  
**List of RA Products and Transaction Types**



Updated and new items for Product list

### **Updated Product Definition**

Resource Adequacy Product – A capacity product intended to meet the resource adequacy obligations created in D.04-01-050 and subsequent decisions (including the local resource adequacy obligations created in D.06-06-064). These decisions require Load Serving Entities (LSEs) to achieve a 15-17% resource adequacy reserve margin for every month with a 90% “year-ahead” forward commitment obligation for the May through September period. The forward commitment must be in place by September 30 of the preceding year (or as specified by the CPUC). By this time LSEs must also procure sufficient resource adequacy product from resources within identified transmission constrained areas to satisfy specified local resource adequacy requirements for each month of the following year. In addition, all months require that 100% of the 15-17% resource adequacy reserve margin be in place one month ahead.

Resource Adequacy Product must meet the required elements of D.06-07-031 and may be more refined during the Phase 2 proceedings of the Order Instituting Rulemaking to Consider Refinements to and Further Development of the Commission’s Resource Adequacy Requirements Program.

### **New Product Definition**

RA Import Capacity Counting Right Product – Transfers the right to count import energy or import RA product at an intertie toward satisfying resource adequacy requirements. This product does not confer any right to transmission, energy, or RA products in itself and must be combined with an equivalent amount of import energy or import RA product to be counted against resource adequacy requirements.

**Attachment 2**  
**Sample Confirmation – Resource Adequacy Capacity Product**  
**for CAISO Resources**

## Confirmation – Resource Adequacy Capacity Product for CAISO Resources

This confirmation agreement (this "Confirmation"), executed as of \_\_\_\_\_ (the "Confirmation Effective Date"), shall document the negotiated transaction (this "Transaction") between \_\_\_\_\_ ("Seller") and \_\_\_\_\_ ("Buyer"), together the "Parties", in which Seller agrees to provide to Buyer the right to the Resource Adequacy Capacity Product described herein (the "Product"). This Transaction is governed by the Edison Electric Institute Master Purchase & Sale Agreement<sup>1</sup>, effective as of \_\_\_\_\_, along with any amendments and annexes thereto (the "Master Agreement"). Capitalized terms not otherwise defined in this Confirmation have the meanings specified in the Master Agreement.

### 1. Definitions

- 1.1. "Applicable Laws" means any law, rule, regulation, order, decision, judgment, or other legal or regulatory determination by any Governmental Body having jurisdiction over one or both Parties or this Transaction, including without limitation, the Tariff.
- 1.2. "Buyer" has the meaning specified in the introductory paragraph hereof.
- 1.3. "CAISO" means the California Independent System Operator, or its successor.
- 1.4. "CAISO Control Area" has the meaning specified in the Tariff.
- 1.5. "CAISO Controlled Grid" has the meaning specified in the Tariff.
- 1.6. "Capacity Replacement Price" means (a) the price paid for any Replacement Capacity purchased by Buyer pursuant to Section 5.3 hereof, plus costs reasonably incurred by Buyer in purchasing such Replacement Capacity, or (b) absent a purchase of any Replacement Capacity, the market price for such Designated RA Capacity not provided at the Delivery Point. The Buyer shall determine such market prices in a commercially reasonable manner.
- 1.7. "Confirmation" has the meaning specified in the introductory paragraph hereof.
- 1.8. "Contingent Firm RA Product" has the meaning specified in Section 3.3 hereof.
- 1.9. "Contract Price" means, for any Monthly Delivery Period, the product of the RA Capacity Flat Price and the Price Shape for such period.
- 1.10. "Contract Quantity" means the total Unit Contract Quantity for all Units.
- 1.11. "CPUC" means the California Public Utilities Commission.

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<sup>1</sup> This Confirmation could be adapted to the WSPP Agreement, but specific master agreement references are to the EEI.

- 1.12. "CPUC Decisions" means CPUC Decisions 04-01-050, 04-10-035, 05-10-042 and/or subsequent decisions related to resource adequacy, as may be amended from time to time by the CPUC.
- 1.13. "Delivery Period" has the meaning specified in Section 4.1 hereof.
- 1.14. "Delivery Point" has the meaning specified in Section 4.2 hereof.
- 1.15. "Designated RA Capacity" means, for each Unit, the RA Capacity that Seller provides to Buyer pursuant to this Confirmation that is certified for inclusion in RAR Showings and if applicable LAR Showings, in each case as determined or approved by the CPUC (and/or, to the extent authorized by the CPUC, by the CAISO) pursuant to the CPUC Decisions, or by an LRA having jurisdiction. Designated RA Capacity shall include those attributes associated with the capacity identified in Sections 2 and 3 hereof. For each Monthly Delivery Period, a Unit's Designated RA Capacity shall be equal to the product of (x) the Unit's RA Capacity, after reflecting adjustments for Outages, if any, required by the CPUC (and/or, to the extent authorized by the CPUC, by the CAISO), or by an LRA having jurisdiction, and (y) the Unit's Prorated Percentage of Unit Factor, provided that the total amount of Designated RA Capacity from all Units shall not exceed the Contract Quantity.
- 1.16. "Confirmation Effective Date" has the meaning specified in the introductory paragraph hereof.
- 1.17. "Firm RA Product" has the meaning specified in the Section 3.2 hereof.
- 1.18. "Governmental Body" means any federal, state, local, municipal or other government; any governmental, regulatory or administrative agency, commission or other authority lawfully exercising or entitled to exercise any administrative, executive, judicial, legislative, police, regulatory or taxing authority or power; and any court or governmental tribunal.
- 1.19. "LAR" means local area reliability, which is any program of localized resource adequacy requirements established for jurisdictional LSE's by the CPUC pursuant to the CPUC Decisions, or by another LRA having jurisdiction over the LSE. LAR may also be known as local resource adequacy, local RA, or local capacity requirement in other regulatory proceedings or legislative actions.
- 1.20. "LAR Attributes" means, with respect to a Unit, any and all resource adequacy attributes (or other locational attributes related to system reliability), as may be identified from time to time by the CPUC, CAISO, LRA, or other Governmental Body having jurisdiction, associated with the physical location or point of electrical interconnection of the Unit within the CAISO Control Area, that can be counted toward LAR, but exclusive of any RAR Attributes which are not associated with where in the CAISO Control Area the Unit is physically located or electrically interconnected. For clarity, it should be understood that the LAR Attributes associated with a Unit by virtue of its location or point of electrical

interconnection may change as the CAISO, LRA, or other Governmental Body, defines new or re-defines existing LAR regions and such change will not result in a change in payments made pursuant to this transaction.

- 1.21. "LAR Showings" means the LAR compliance showings (or similar or successor showings) an LSE is required to make to the CPUC (and/or, to the extent authorized by the CPUC, to the CAISO) pursuant to the CPUC Decisions, or to an LRA having jurisdiction over the LSE.
- 1.22. "LRA" means a Local Regulatory Authority, as defined in the Tariff.
- 1.23. "LSE" means load-serving entity. LSEs may be an investor-owned utility, an electric service provider, a community aggregator or community choice aggregator, or a municipality serving load in the CAISO Control Area (excluding exports).
- 1.24. "Maintenance Outage" has the meaning specified in the NERC/GADS Protocols.
- 1.25. "Master Agreement" has the meaning specified in the introductory paragraph hereof.
- 1.26. "Monthly Delivery Period" means each calendar month during the Delivery Period.
- 1.27. "Monthly RA Capacity Payment" has the meaning specified in Section 4.4 hereof.
- 1.28. "NERC/GADS Protocols" means the North American Electric Reliability Council (NERC) Generating Availability Data System (GADS) protocols, as may be updated from time to time.
- 1.29. "Non-Excusable Event" means Seller's (a) negligence, (b) failure to perform its obligations under this Confirmation, including, without limitation, the failure to cause the owner, operator or SC of a Unit to comply with the operations and maintenance standards specified in Section 8.2.F, or (c) failure to comply, or cause the owner, operator or SC of the Units to comply, with the Tariff with respect to the Units providing RAR Attributes and LAR Attributes, as applicable.
- 1.30. "Outages" means Maintenance Outages, Planned Outages and Unplanned Outages, as defined by the NERC/GADS Protocols.
- 1.31. "Planned Outage" has the meaning specified in the NERC/GADS Protocols.
- 1.32. "Price Shape" means the Price Shape specified in the Monthly Capacity Price Shape Table in Section 4.4 hereof.
- 1.33. "Product" has the meaning specified in the introductory paragraph hereof.
- 1.34. "Prorated Percentage of Unit Factor" means the percentage of RA Capacity, as specified in Section 2 hereof, from the Unit that is dedicated to Buyer.

- 1.35. "RA Availability" means, for each Unit, (a) the Unit's Designated RA Capacity for a Monthly Delivery Period, divided by (b) the Unit Contract Quantity, provided that a Unit's RA Availability shall not exceed 1.00.
- 1.36. "RA Capacity" means the qualifying and deliverable capacity of the Unit for RAR and LAR purposes for the Delivery Period, as determined by the CAISO, or other Governmental Body authorized to make such determination under Applicable Laws. RA Capacity encompasses both the RAR Attributes and LAR Attributes of the capacity provided by a Unit.
- 1.37. "RA Capacity Flat Price" means the price specified in the Monthly Capacity Flat Price Table in Section 4.4 hereof.
- 1.38. "RAR" means the resource adequacy requirements established for LSEs by the CPUC pursuant to the CPUC Decisions, or by an LRA or other Governmental Body having jurisdiction.
- 1.39. "RAR Attributes" means, with respect to a Unit, any and all resource adequacy attributes, as may be identified from time to time by the CPUC, LRA, or Governmental Body having jurisdiction that can be counted toward RAR, exclusive of any LAR Attributes.
- 1.40. "RAR Showings" means the RAR compliance showings (or similar or successor showings) an LSE is required to make to the CPUC (and/or, to the extent authorized by the CPUC, to the CAISO), pursuant to the CPUC Decisions, or to an LRA having jurisdiction.
- 1.41. "Replacement Capacity" has the meaning specified in Section 5.3 hereof.
- 1.42. "Replacement Unit" means a generating unit meeting the requirements specified in Section 5.2 hereof.
- 1.43. "Resource Top Down Category" means the resource classification as described in CPUC Decision 05-10-042, and as may be amended from time to time by the CPUC.
- 1.44. "RMR Agreement" has the meaning specified in Section 8.2.B hereof.
- 1.45. "Scheduling Coordinator" or "SC" has the meaning defined in the Tariff.
- 1.46. "Seller" has the meaning specified in the introductory paragraph hereof.
- 1.47. "Supply Plan" means the supply plans, or similar or successor filings, that each Scheduling Coordinator representing RA Capacity submits to the CAISO, LRA, or other Governmental Body, pursuant to Applicable Laws, in order for that RA Capacity to count for its RAR Attributes or LAR Attributes.

- 1.48. "Tariff" means the tariff and protocol provisions of the CAISO, as amended from time to time.
- 1.49. "Transaction" has the meaning specified in the introductory paragraph hereof.
- 1.50. "Unit" or "Units" shall mean the generation assets described in Section 2 hereof (including any Replacement Unit(s)), from which RA Capacity is provided by Seller to Buyer.
- 1.51. "Unit Contract Quantity" means the contract quantity for a Unit as of the Confirmation Effective Date, as specified in (and may be adjusted pursuant to) Section 4.3 hereof.

**2. Unit Information<sup>2</sup>**

Name: \_\_\_\_\_

Location: \_\_\_\_\_

CAISO Resource ID: \_\_\_\_\_

Unit SCID: \_\_\_\_\_

Unit CAISO Net Qualifying Capacity: \_\_\_\_\_ MW

Prorated Percentage of Unit Factor: \_\_\_\_\_ %

Resource Type: \_\_\_\_\_

Resource Top Down Category (1, 2, 3 or 4): \_\_\_\_\_

Point of interconnection with the CAISO Controlled Grid ("Substation"): \_\_\_\_\_

Current CAISO Zone (NP15, ZP26, or SP15) in which Substation resides: \_\_\_\_\_

LAR Region (if any, as Of Confirmation Effective Date): \_\_\_\_\_

Deliverability restrictions, if any, as described in most recent CAISO deliverability assessment: \_\_\_\_\_

Run Hour Restrictions: \_\_\_\_\_

**3. Resource Adequacy Capacity Product**

During Delivery Period, Seller shall provide the Product to Buyer pursuant to the terms of this Confirmation. The Product shall (a) include both RAR Attributes and LAR Attributes, and (b) be a Firm RA Product or a Contingent Firm RA Product, as selected below. The

<sup>2</sup> To be repeated for each Unit if more than one.

Product does not confer to Buyer any right to the Contract Quantity from the Units, other than the right to include the Designated RA Capacity associated with the Contract Quantity in RAR Showings, LAR Showings if applicable, and any other capacity or resource adequacy markets or proceedings as specified in this Confirmation. Specifically, no energy or ancillary services associated with any Unit is required to be made available to Buyer as part of this Transaction and, other than as set forth in this Confirmation, Buyer shall not be responsible for compensating Seller for Seller's commitments to the CAISO required by this Confirmation. Seller retains the right to sell any RA Capacity from a Unit in excess of that Unit's Contract Quantity, and any RAR Attributes or LAR Attributes not otherwise sold under this Confirmation.

### 3.1. RAR and LAR Attributes

Seller shall provide Buyer with the Designated RA Capacity and the RAR Attributes and LAR Attributes from each Unit, as measured in MWs.

### 3.2. Firm RA Product

Seller shall provide Buyer with Designated RA Capacity from the Units in the amount of the Contract Quantity. If the Units are not available to provide the full amount of the Contract Quantity for any reason other than Force Majeure, including without limitation any Outage or any adjustment of the RA Capacity of any Unit, Seller shall provide Buyer with Designated RA Capacity from one or more Replacement Units pursuant to Section 5.2 hereof. If Seller fails to provide Buyer with replacement Designated RA Capacity from Replacement Units pursuant to Section 5.2, Seller shall be liable for damages pursuant to Section 5.4 hereof, or to indemnify Buyer for penalties or fines pursuant to Section 5.5 hereof if Seller is not able to replace the Designated RA Capacity.

### 3.3. Contingent Firm RA Product

Seller shall provide Buyer with Designated RA Capacity from the Units in the amount of the Contract Quantity. If the Units are not available to provide the full amount of the Contract Quantity because of a Non-Excusable Event, Seller shall provide Buyer with Designated RA Capacity from one or more Replacement Units pursuant to Section 5.2 hereof. In such case, if Seller fails to provide Buyer with replacement Designated RA Capacity from Replacement Units pursuant to Section 5.2, Seller shall be liable for damages pursuant to Section 5.4 hereof, or to indemnify Buyer for penalties or fines pursuant to Section 5.5 hereof. If the Units provide less than the full amount of the Contract Quantity for any reason other than a Non-Excusable Event, Seller is not obligated to provide Buyer with replacement Designated RA Capacity or to indemnify Buyer for penalties or fines pursuant to Section 5.5 hereof.

## 4. **Delivery and Payment**

### 4.1. Delivery Period

The Delivery Period shall be: \_\_\_\_\_



4.2. Delivery Point

The Delivery Point for each Unit shall be the CAISO Control Area and, if applicable, the LAR region in which the Unit is electrically interconnected. .

4.3. Unit Contract Quantity:<sup>3</sup>

The Contract Quantity of each Unit for each Monthly Delivery Period shall be:

**Unit Contract Quantity (MWs)**

Month	[Year]
January	
February	
March	
April	
May	
June	
July	
August	
September	
October	
November	
December	

If any portion of the Designated RA Capacity of any Unit providing a Contingent Firm RA Product is not available after the Confirmation Effective Date for reasons other than a Non-Excusable Event, the Unit Contract Quantity shall be adjusted to the product of the Unit's (a) RA Capacity following adjustment, and (b) Prorated Percentage of Unit Factor, provided that the resulting Unit Contract Quantity shall not exceed the original Unit Contract Quantity on the Confirmation Effective Date.

<sup>3</sup> To be repeated for each Unit if more than one.

4.4. Monthly RA Capacity Payment

In accordance with the terms of Article Six of the Master Agreement, Buyer shall make a Monthly RA Capacity Payment to Seller for each Unit, in arrears, following each Monthly Delivery Period. Each Unit's Monthly RA Capacity Payment shall be equal to the product of (a) the applicable RA Capacity Flat Price, (b) the applicable Price Shape, (c) the Designated RA Capacity for the Monthly Delivery Period, and (d) 1,000. The final product of this Monthly RA Capacity Payment calculation shall be rounded to the nearest penny (i.e. two decimal places). Each Monthly RA Capacity Payment may be subject to reduction in accordance with Section 4.5 hereof.

**MONTHLY CAPACITY FLAT PRICE TABLE**

<b>Contract Year</b>	<b>RA Capacity Flat Price (\$/kW-month)</b>
[Year]	

The respective monthly Price Shape, set forth in the Monthly Capacity Price Shape Table below, shall apply throughout the entire Delivery Period.

**MONTHLY CAPACITY PRICE SHAPE TABLE**

<b>Contract Month</b>	<b>Price Shape (%)</b>
Jan	
Feb	
Mar	
Apr	
May	
Jun	
Jul	
Aug	
Sep	

Discussion Document Only

Oct	
Nov	
Dec	

4.5. Reduction of Monthly RA Capacity Payment (Contingent Firm RA Product only)

For any Contingent Firm RA Product, the Monthly RA Capacity Payment for each Unit shall be reduced by its RA Availability Adjustment, which is calculated as follows:

RA Availability	RA Availability Adjustment Factor
80% to 100 %	0%
50% to less than 80%	50%
Less than 50%	100%

(a) When the Unit's RA Availability for the Monthly Delivery Period is greater than or equal to 80 percent, the Unit's RA Availability Adjustment shall be zero.

(b) When the Unit's RA Availability is greater than or equal to 50 percent, but less than 80 percent, the Unit's RA Availability Adjustment shall be equal to:

$$(.80 - \text{RA Availability}) * .50 * \text{RA Capacity Flat Price} * \text{Price Shape} * \text{Unit Contract Quantity} * 1000.$$

(c) When the Unit's RA Availability is less than 50 percent, the Unit's RA Availability Adjustment shall be equal to:

$$(((.80 - .50) * .50) + ((.50 - \text{RA Availability}) * 1.00)) * \text{RA Capacity Flat Price} * \text{Price Shape} * \text{Unit Contract Quantity} * 1000.$$

The final product of this RA Availability Adjustment calculation shall be rounded to the nearest penny (i.e. two decimal places). The RA Availability Adjustment for each Unit shall be subtracted from the Monthly RA Capacity Payment determined in Section 4.4 to determine the amount due to the Seller for Designated RA Capacity provided hereunder from each Unit. In no case shall a Unit's Monthly RA Capacity Payment be less than zero.

4.6. Allocation of Other Payments And Costs

Seller may retain any revenues it may receive from the CAISO or any other third party with respect to any Unit for (a) start-up, shut-down and minimum load costs, (b) capacity revenue for ancillary services, (c) energy sales, and (d) any future markets for black start or reactive power services. However, Buyer shall be entitled to receive and retain all revenues associated with the Designated RA Capacity of any Unit during the Delivery Period (including any capacity or availability revenues from RMR Agreements for any Unit, and Reliability Compensation Services Tariff capacity payments, but excluding payments described in clauses (a) and (b) above). All such revenues received by Seller, a Unit's SC, owner, or operator shall promptly be paid to Buyer, and Seller shall indemnify Buyer for any such revenues that Buyer does not receive, and Seller shall promptly pay such revenues to Buyer if the Unit's SC, owner, or operator fails to remit those revenues to Buyer. If a centralized capacity market develops within the CAISO region, Buyer will have exclusive rights to offer, bid or otherwise submit Designated RA Capacity provided to Buyer pursuant to this Confirmation for re-sale in such market, and retain and receive any and all related revenues.

## **5. Seller's Failure to Deliver Contract Quantity**

### **5.1. Notices and Filings**

If the Units will not be available to provide Designated RA Capacity in the full amount of the Contract Quantity for any RAR and/or LAR Showings for the Delivery Period, Seller shall, no later than the earlier of (a) twenty (20) Business Days from the loss of any Designated RA Capacity, or (b) fifteen (15) Business Days before the relevant deadline for such RAR and/or LAR Showing, notify Buyer of the Designated RA Capacity of each Unit which can be included in such Showings. Seller shall, on a timely basis, submit, or cause each Unit's Scheduling Coordinator to submit, Supply Plans to identify and confirm the Designated RA Capacity of each Unit sold to Buyer. Seller shall cause the Unit's Scheduling Coordinator to certify to Buyer, no later than the earlier of (a) twenty (20) Business Days from the Confirmation Effective Date, or (b) fifteen (15) Business Days before the relevant deadline for any applicable RAR and/or LAR Showing, that Buyer will be credited with the Designated RA Capacity for the Delivery Period in the Unit's Scheduling Coordinator's Supply Plan. Seller shall indemnify and hold harmless Buyer from any costs, monetary penalties or fines Buyer may incur in the event any Unit's Scheduling Coordinator fails to timely submit Supply Plans that identify Buyer's right to the Designated RA Capacity purchased hereunder.

### **5.2. RA Capacity from Replacement Units**

If Seller is required to provide Designated RA Capacity from one or more Replacement Units pursuant to Sections 3.2 or 3.3, Seller shall, at no cost to Buyer, provide Buyer with replacement RA Capacity from one or more Replacement Units, such that the total amount of Designated RA Capacity provided to Buyer from all Units and Replacement Units equals the Contract Quantity. The designation of any Replacement Unit by Seller shall be subject to Buyer's prior written approval, which shall not be unreasonably withheld. For clarity, in the aggregate all Units and Replacement Units must provide to Buyer RAR Attributes and LAR Attributes equivalent to those that were provided by the original Units and that were sold under this Confirmation. Seller shall identify Replacement Units meeting the above requirements no later than the earlier of (x) twenty (20) Business Days from the loss of any Designated RA Capacity, or (y) fifteen (15) Business Days before the relevant deadline for Buyer's RAR Showing and/or LAR Showing. Once Seller has identified in writing any Replacement Units that meet the requirements of this Section, any such Replacement Unit shall be automatically deemed to be a Unit for purposes of amending this Confirmation until Seller notifies Buyer, in writing, of the availability of the original Units.

For purposes of this Confirmation, Seller shall be deemed to have failed to provide Buyer with Designated RA Capacity in the full amount of the Contact Quantity if the Units and Replacement Units providing such Designated RA Capacity do not in the aggregate provide to Buyer the RAR Attributes and LAR Attributes contracted for pursuant to this Confirmation.

### 5.3. Purchase of Replacement Capacity

If Seller fails to provide Designated RA Capacity from Replacement Units as required by Section 5.2 hereof, Buyer may, but shall not be required to, replace any Designated RA Capacity not provided by Seller with capacity (such replacement capacity being referred to as "Replacement Capacity") having equivalent RAR and LAR Attributes compared to the Designated RA Capacity not provided by Seller. Buyer may enter into purchase transactions with one or more other parties to replace Designated RA Capacity not provided by Seller. Additionally, Buyer may enter into one or more arrangements to repurchase its obligation to sell and deliver the Product to another party, and such arrangements shall be considered to be the procurement of Replacement Capacity. Buyer shall act in a commercially reasonable manner in purchasing any Replacement Capacity.

### 5.4. Damages for Failure to Deliver

If Seller is required to provide Designated RA Capacity from one or more Replacement Units pursuant to Sections 3.2 or 3.3, and fails to do so pursuant to Section 5.2 hereof, then Seller shall pay to Buyer an amount equal to the positive difference, if any, obtained by subtracting (a) the sum of all Replacement Capacity transaction prices (for each Replacement Capacity transaction, multiply its Capacity Replacement Price by its quantity) ; with (b) the amount of Designated RA Capacity not provided for each Monthly Delivery Period multiplied by the Contract Price for that month. For purposes of Section 4.1 of the Master Agreement and determining the damages, if any, payable by Seller to Buyer there under, Buyer shall subtract the Contract Price from the Capacity

Replacement Price instead of from the "Replacement Price" defined in Section 1.51 of the Master Agreement.

#### 5.5. Indemnities For Failure to Deliver Contract Quantity

Seller agrees to indemnify Buyer for any monetary penalties or fines assessed against Buyer by the CPUC and/or the CAISO, or an LRA having jurisdiction, resulting from: (a) Seller's failure to provide Buyer with Designated RA Capacity from the Units pursuant to Sections 3.2, 3.3, and 5.2 (including, without limitation, meeting the time requirements for designating any Replacement Units); (b) Seller's failure to provide notice of the non-availability of Designated RA Capacity as required under Section 5.1 hereof; or (c) any other failure by Seller to perform its obligations under this Confirmation. With respect to the foregoing, the Parties shall use commercially reasonable efforts to minimize such penalties and fines, provided that in no event shall Buyer be required to utilize or change its utilization of its owned or controlled assets or market positions to minimize these penalties and fines. Seller will have no obligation to Buyer under this Section 5.5 in respect of the portion of Contract Quantity for which Seller has paid damages pursuant to Section 5.4 hereof.

#### 6. **CAISO Offer Requirements:**

During the Delivery Period, except to the extent any Unit is on an Outage, or is affected by an event of Force Majeure that results in a partial or full outage of that Unit, Seller shall either schedule or cause the Unit's Scheduling Coordinator to schedule with, or make available to, the CAISO each Unit's available Designated RA Capacity in compliance with the Tariff, and shall perform all, or cause the Unit's Scheduling Coordinator, owner, or operator, as applicable to perform all, obligations under the Tariff that are associated with the sale of Designated RA Capacity hereunder. Buyer shall have no liability for the failure of Seller or the failure of any Unit's Scheduling Coordinator, owner or operator to comply with such Tariff provisions, including any penalties or fines imposed on Seller or the Unit's Scheduling Coordinator, owner, or operator for such noncompliance.

#### 7. **Planned and Maintenance Outages**

For Contingent Firm Products, no later than January 15, April 15, July 15 and October 15 of each calendar year during the Delivery Period, and at least 60 days prior to the commencement of the Delivery Period, Seller shall submit, or cause the Unit's Scheduling Coordinator to submit to Buyer each Unit's schedule of proposed Planned or Maintenance Outages ("Outage Schedule") for the period or to the end of the Delivery Period, whichever is shorter. Within twenty (20) Business Days after its receipt of an Outage Schedule, Buyer shall notify Seller in writing of any reasonable request for changes to the Outage Schedule, and Seller shall, consistent with Good Utility Practices, accommodate Buyer's requests regarding the timing of any Planned or Maintenance Outages. Seller or the Unit's Scheduling Coordinator shall notify Buyer within five (5) Business Days of any change to the Outage Schedule.

A Planned Outage cannot exceed 15 consecutive days in length (unless the Parties, prior to the first day of the Planned Outage, agree otherwise), and shall not be scheduled from each May 1 through September 30 during the Delivery Period. In the event that Seller has a previously Planned Outage that becomes coincident with a CAISO-declared system emergency, Seller shall make all reasonable efforts to reschedule such Planned Outage.

## **8. Other Buyer and Seller Covenants**

- 8.1 Buyer and Seller shall, throughout the Delivery Period, take all commercially reasonable actions and execute any and all documents or instruments reasonably necessary to ensure Buyer's right to the use of the Contract Quantity for the sole benefit of Buyer's RAR and LAR if applicable. Such commercially reasonable actions shall include, without limitation:
- A. Cooperating with and providing, and in the case of Seller causing each Unit's Scheduling Coordinator, owner or operator to cooperate with and provide, requested supporting documentation to the CAISO, the CPUC, or any other Governmental Body responsible for administering RAR and/or LAR under Applicable Laws, to certify or qualify the Contract Quantity as RA Capacity and Designated RA Capacity. Such actions shall include, without limitation, providing information requested by the CPUC, or by an LRA having jurisdiction, to demonstrate for each month of the Delivery Period the ability to deliver the Contract Quantity from each Unit to the CAISO Controlled Grid for the minimum hours required to qualify as RA Capacity, and providing information requested by the CPUC, CAISO or other Governmental Body having jurisdiction to administer RAR or LAR to demonstrate that the Contract Quantity can be delivered to the CAISO Controlled Grid, pursuant to "deliverability" standards established by the CAISO, or other Governmental Body having jurisdiction to administer RAR and/or LAR; and
  - B. Negotiating in good faith to make necessary amendments, if any, to this Confirmation to conform this Transaction to subsequent clarifications, revisions or decisions rendered by the CPUC, FERC, or other Governmental Body having jurisdiction to administer RAR or LAR, so as to maintain the benefits of the bargain struck by the Parties.
- 8.2 Seller represents, warrants and covenants to Buyer that, throughout the Delivery Period:
- A. Seller owns, or has the exclusive right to the RA Capacity sold under this Confirmation from each Unit, and shall furnish Buyer, CAISO, CPUC or other jurisdictional LRA, or other Governmental Body with such evidence as may reasonably be requested to demonstrate such ownership or exclusive right;
  - B. No portion of the Contract Quantity has been committed by Seller to any third party in order to satisfy RAR and/or LAR or analogous obligations in CAISO markets, other than pursuant to an RMR Agreement between the CAISO and either Seller or the Unit's owner or operator;

- C. No portion of the Contract Quantity has been committed by Seller in order to satisfy RAR and/or LAR, or analogous obligations in any non-CAISO market;
- D. Each Unit is connected to the CAISO Controlled Grid, is within the CAISO Control Area, and is under the control of CAISO;
- E. In the event Seller has rights to the energy output of any Unit, and Seller or the Unit's Scheduling Coordinator schedules energy from the Unit for export from the CAISO Control Area, or commits energy to another entity in a manner that could result in scheduling energy from the Unit for export from the CAISO Control Area, it shall do so only as allowed by, and in accordance with, Applicable Laws and such exports may, if allowed by the Tariff, be curtailed by the CAISO;
- F. The owner or operator of each Unit is obligated to maintain and operate each Unit using "Good Utility Practice," as defined in the Tariff, and General Order 167 as outlined by the CPUC in the Enforcement of Maintenance and Operation Standards for Electric Generating Facilities Adopted May 6, 2004, if applicable to the Unit, and is obligated to abide by all Applicable Laws in operating such Unit, provided that the owner or operator of any Unit is not required to undertake capital improvements, facility enhancements, or the construction of new facilities;
- G. The owner or operator of each Unit is obligated to comply with Applicable Laws, including the Tariff, relating to RA Capacity, RAR and LAR;
- H. With respect to the RA Capacity provided under this Confirmation, Seller shall, and the Unit's SC is obligated to, comply with Applicable Laws, including the Tariff, relating to RA Capacity, RAR and LAR;
- I. Seller has notified the SC of each Unit that Seller has transferred the Designated RA Capacity to Buyer, and the SC is obligated to deliver the Supply Plans in accordance with the Tariff; and
- J. Seller has notified each Unit's SC that Buyer is entitled to the revenues set forth in Section 4.6 of this Confirmation, and SC is obligated to promptly deliver those revenues to Buyer, along with appropriate documentation supporting the amount of those revenues.

**9. Confidentiality.**



Notwithstanding Section 10.11 of the Agreement, the Parties agree that Buyer may disclose the transfer of the Designated RA Capacity under this Transaction to any Governmental Body, the CPUC, the CAISO or any LRA having jurisdiction in order to support its LAR or RAR Showings, if applicable, and Seller may disclose the transfer of the Designated RA Capacity under this Transaction to the SC of each Unit in order for such SC to timely submit accurate Supply Plans; provided, that each disclosing Party shall, to the extent reasonable, use reasonable efforts to limit the ability of any such applicable Governmental Body, CAISO, LRA or SC to further disclose such information.

## **10. Assignment**

Buyer may sell, assign or transfer the all or a portion of the Product without Seller's consent, provided that the purchaser, assignee or transferee shall assume Buyer's rights and obligations under this Confirmation.

## **11. Collateral Requirements**

### **11.1. Seller Collateral Requirements**

Notwithstanding anything to the contrary contained in the Master Agreement, Seller shall provide to, and maintain with, Buyer a Full Floating Independent Amount as long as Seller or its Guarantor, if any, does not maintain Credit Ratings of at least BBB- from S&P and of at least Baa3 from Moody's. The Full Floating Independent Amount shall be 25% of the sum of the Monthly RA Capacity Payments for the current month and all remaining months of the Delivery Period, without the reductions specified in Section 4.5. For the purposes of calculating the Collateral Requirement pursuant Paragraph 3 of the Collateral Annex<sup>4</sup>, such Full Floating Independent Amount for Seller shall be added to the Exposure Amount for Buyer and subtracted from the Exposure Amount for Seller.

### **11.2. Buyer Collateral Requirements**

Notwithstanding anything to the contrary contained in the Master Agreement, Buyer shall provide to, and maintain with, Seller a Full Floating Independent Amount as long as Buyer or its Guarantor, if any, does not maintain Credit Ratings of at least BBB- from S&P and of at least Baa3 from Moody's. The Full Floating Independent Amount shall be equal to 25% of the sum of the Monthly RA Capacity Payments for the current month and all remaining months of the Delivery Period, without the reductions specified in Section 4.5]. For the purposes of calculating the Collateral Requirement pursuant Paragraph 3 of the Collateral Annex, such Full Floating Independent Amount for Buyer shall be added to the Exposure Amount for Seller and subtracted from the Exposure Amount for Buyer.

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<sup>4</sup> This Confirmation presumes the parties have executed a Collateral Annex to the EEI. If no such agreement exists, definitions used in the Collateral Annex need to be added to the EEI or otherwise provided within the Transaction.

11.3. The Parties further agree that for the purposes of calculating the Collateral Requirement pursuant to Paragraph 3 of the Collateral Annex, the Current Mark-to-Market Value for this Transaction (as defined in Paragraph 1 of the EEI Collateral Annex) is deemed to be zero. If at any time prior to the expiration of the Delivery Period, a liquid market for an RA Capacity product develops wherein price quotes for such a product can be obtained from [X] independent third parties, the Parties agree to amend the Confirmation to include a methodology for calculating the Current Mark-to-Market Value for this Transaction, consequently affecting each Party's Exposure (as defined in Paragraph 1 of the EEI Collateral Annex).

Notwithstanding anything to the contrary, the Parties shall determine the Settlement Amount for this Transaction in accordance Section 5.2 of the Master Agreement.

BUYER

SELLER

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**Attachment 3**  
**Sample Confirmation – Import Capacity Counting Right**

## Confirmation — Resource Adequacy Import Counting Right

This confirmation agreement (this "Confirmation"), executed as of \_\_\_\_\_ (the "Confirmation Effective Date"), shall document the negotiated transaction (this "Transaction") between \_\_\_\_\_ ("Seller") and \_\_\_\_\_ ("Buyer"), each individually a "Party" and together the "Parties", in which Seller agrees to provide to Buyer the right to the resource adequacy capacity product described herein (the "Product"). This Transaction is governed by the Edison Electric Institute Master Power Purchase & Sale Agreement<sup>1</sup>, effective as of \_\_\_\_\_, along with any amendments and annexes thereto (the "Master Agreement"). Capitalized terms not otherwise defined in this Confirmation have the meanings specified in the Master Agreement.

1. **Definitions:**

- 1.1. "CAISO" means the California Independent System Operator.
- 1.2. "CPUC" means the California Public Utilities Commission.
- 1.3. "CPUC Decisions" means CPUC Decisions 04-01-050, 04-10-035, 05-10-042, 06-06-064, 06-07-031 and subsequent decisions related to resource adequacy, as may be amended from time to time by the CPUC.
- 1.4. "Pacific Prevailing Time" means the local time observed in the pacific time zone adjusted for daylight savings time when applicable.
- 1.5. "Tariff" means the tariff and protocol provisions of the CAISO, as amended from time to time.

2. **Term:**

[Month day, year] through [month day, year], inclusive.

3. **Applicable Hours:**

Hour ending 01 through hour ending 24, Pacific Prevailing Time, for each day of the Term.

4. **Contract Quantity:**

XX MWs.

5. **Product:**

The Product means rights to Resource Adequacy import allocations, as referenced in the CPUC Decisions. The Product does not confer to Buyer any right to transmission service, but is only used for determining the allocation of

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<sup>1</sup> This Confirmation could be adapted to the WSPP Agreement, but specific master agreement references are to the EEI.

Resource Adequacy import counting rights that can be credited towards satisfying Buyer's resource adequacy requirements, as established by the CPUC pursuant to the CPUC Decisions, and included in the resource adequacy compliance showings Buyer is required to make to the CPUC (and/or, to the extent authorized by the CPUC, to the CAISO). Seller shall be deemed to have failed to deliver the Product under this Confirmation if the Contract Quantity is reduced or reallocated by the CPUC and/or CAISO during the Term.

**6. Import Point:**

TBD.

**7. Price:**

To be negotiated (\$/month).

**8. Payment:**

Seller shall prepare and invoice Buyer, for the sale of this Product. Payment shall be due the later of 20 days after the execution of this Confirmation or 10 days after the receipt of an invoice.

**9. Buyer and Seller Covenants:**

9.1 Buyer and Seller shall, throughout the Term, take all commercially reasonable actions and execute any and all documents or instruments reasonably necessary to ensure Buyer's right to the use of the Contract Quantity for the sole benefit of Buyer. Such commercially reasonable actions shall include, without limitation, notifying the CPUC and/or CAISO of such transfer and participating in any registration system or other process that may be required.

9.2 Seller represents, warrants and covenants to Buyer that, throughout the Delivery Period:

- A. Seller owns or has the exclusive right to the Product sold under this Confirmation and shall furnish Buyer, CAISO, or CPUC with such evidence as may reasonably be requested to demonstrate such ownership or exclusive right;
- B. No portion of the Contract Quantity has been committed by Seller to any third party

**10. Indemnity For Certain Fines and Penalties:**

Without limiting the remedies available to Buyer for Seller's failure to deliver the Product under the Master Agreement, Seller agrees to indemnify Buyer for any monetary penalties or fines assessed against Buyer by the CPUC and/or the CAISO for Buyer's failure to meet resource adequacy requirements or make resource adequacy compliance showings, as established by the CPUC pursuant to the CPUC Decisions and/or the CAISO pursuant to the Tariff, to the extent (a)

Discussion Document Only

any such penalties or fines were the result of Seller's failure to deliver the Contract Quantity or comply with its obligations under this Confirmation, and (b) Seller has not provided Buyer sufficient notice for Buyer, acting in a commercially reasonable manner, to purchase at the Import Point replacement Product for any Contract Quantity not delivered by Seller to avoid such monetary penalties or fines being assessed.

BUYER

SELLER

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Draft

**Attachment 4**  
**CPUC Approved Products, Updated for Resource Adequacy**

PACIFIC GAS AND ELECTRIC COMPANY

AL 2897-E

Attachment 4

CPUC-APPROVED PRODUCTS AS PROVIDED IN D.04-12-048, UPDATED FOR RESOURCE ADEQUACY

	<b>Authorized by D.02-10-062 and/or D.03-12-062</b>
<b>Transactions</b>	(authorized by D.02-10-062) Ancillary Services Capacity (demand side) Capacity (purchase or sale) Electricity Transmission Products Financial call (or put) option Financial swap Forward Energy (demand side) Forward Energy (purchase or sale) Forward Spot (Day-Ahead & Hour-ahead) purchase, sale, or exchange Gas Purchases (monthly, multi-month, annual block) Gas Storage Gas Transportation Transaction Insurance (Counterparty credit insurance, cross commodity hedges) On-site energy or capacity (self-generation on customer side of the meter) Peak for off-peak exchange Physical call (or put) option Real-time (purchase or sale) Seasonal exchange Tolling Agreement



PACIFIC GAS AND ELECTRIC COMPANY

AL 2897-E

Attachment 4

CPUC-APPROVED PRODUCTS AS PROVIDED IN D.04-12-048, UPDATED FOR RESOURCE ADEQUACY

	<b>Authorized by D.02-10-062 and/or D.03-12-062</b>
<b>Additional Transactions</b>	<p><i>(authorized by D.03-12-062)</i></p> <p>Counterparty Sleeves</p> <p>Emissions Credits futures or forwards</p> <p>Forecast Insurance</p> <p>FTR Locational Swaps</p> <p>Gas Purchases (daily)</p> <p>Non-FTR Locational Swaps</p> <p>Structured Transactions</p> <p>Weather triggered options</p>
<b>Transactional Processes</b>	<p><i>(authorized by D.02-10-062)</i></p> <p>Competitive Solicitations (Requests for Offers)</p> <p>Direct bilateral contracting with counterparties for short-term products (i.e., less than 90 days)</p> <p>Inter-Utility Exchanges</p> <p>ISO markets: Imbalance Energy, Hour Ahead, and Day Ahead (when operational)</p> <p>Transparent exchanges, such as Bloomberg and Intercontinental Exchange</p> <p>Utility ownership of generation (interim rules set in D.04-01-50)</p>
<b>Additional Transactional Processes</b>	<p><i>(authorized by D.03-12-062)</i></p> <p>Open Access Same-Time Information Systems (OASIS)</p> <p>Negotiated bilateral contracting allowed for</p> <p>Short-term transactions of less than 90 days duration and with delivery beginning less than 90 days forward.</p> <p>Longer-term non-standard products provided that the IOU include a product justification in quarterly compliance filings</p> <p>Standard products in cases where there are 5 or fewer counterparties (for gas storage and pipeline capacity, only)</p> <p>Transparent exchanges to include voice and on-line brokers</p>
<b>Resource Adequacy Products</b>	<p>2006 Resource Adequacy Capacity Product <i>(authorized by Resolution E-3955)</i></p> <p>Post-2006 Resource Adequacy Capacity Product</p> <p>Post-2006 Resource Adequacy Capacity Import Counting Right</p>

**PG&E Gas and Electric Advice  
Filing List  
General Order 96-A, Section III(G)**

ABAG Power Pool  
Accent Energy  
Aglet Consumer Alliance  
Agnews Developmental Center  
Ahmed, Ali  
Alcantar & Elsesser  
Ancillary Services Coalition  
Anderson Donovan & Poole P.C.  
Applied Power Technologies  
APS Energy Services Co Inc  
Arter & Hadden LLP  
Avista Corp  
Barkovich & Yap, Inc.  
BART  
Bartle Wells Associates  
Blue Ridge Gas  
Bohannon Development Co  
BP Energy Company  
Braun & Associates  
C & H Sugar Co.  
CA Bldg Industry Association  
CA Cotton Ginners & Growers Assoc.  
CA League of Food Processors  
CA Water Service Group  
California Energy Commission  
California Farm Bureau Federation  
California Gas Acquisition Svcs  
California ISO  
Calpine  
Calpine Corp  
Calpine Gilroy Cogen  
Cambridge Energy Research Assoc  
Cameron McKenna  
Cardinal Cogen  
Cellnet Data Systems  
Chevron Texaco  
Chevron USA Production Co.  
Childress, David A.  
City of Glendale  
City of Healdsburg  
City of Palo Alto  
City of Redding  
CLECA Law Office  
Commerce Energy  
Constellation New Energy  
CPUC  
Cross Border Inc  
Crossborder Inc  
CSC Energy Services  
Davis, Wright, Tremaine LLP  
Defense Fuel Support Center  
Department of the Army  
Department of Water & Power City  
DGS Natural Gas Services  
Douglass & Liddell  
Downey, Brand, Seymour & Rohwer  
Duke Energy  
Duke Energy North America  
Duncan, Virgil E.  
Dutcher, John  
Dynergy Inc.  
Ellison Schneider  
Energy Law Group LLP  
Energy Management Services, LLC  
Exelon Energy Ohio, Inc  
Exeter Associates  
Foster Farms  
Foster, Wheeler, Martinez  
Franciscan Mobilehome  
Future Resources Associates, Inc  
G. A. Krause & Assoc  
Gas Transmission Northwest Corporation  
GLJ Energy Publications  
Goodin, MacBride, Squeri, Schlotz &  
Hanna & Morton  
Heeg, Peggy A.  
Hitachi Global Storage Technologies  
Hogan Manufacturing, Inc  
House, Lon  
Imperial Irrigation District  
Integrated Utility Consulting Group  
International Power Technology  
Interstate Gas Services, Inc.  
IUCG/Sunshine Design LLC  
J. R. Wood, Inc  
JTM, Inc  
Luce, Forward, Hamilton & Scripps  
Manatt, Phelps & Phillips  
Marcus, David  
Matthew V. Brady & Associates  
Maynor, Donald H.  
McKenzie & Assoc  
McKenzie & Associates  
Meek, Daniel W.  
Mirant California, LLC  
Modesto Irrigation Dist  
Morrison & Foerster  
Morse Richard Weisenmiller & Assoc.  
Navigant Consulting  
New United Motor Mfg, Inc  
Norris & Wong Associates  
North Coast Solar Resources  
Northern California Power Agency  
Office of Energy Assessments  
OnGrid Solar  
Palo Alto Muni Utilities  
PG&E National Energy Group  
Pinnacle CNG Company  
PITCO  
Plurimi, Inc.  
PPL EnergyPlus, LLC  
Praxair, Inc.  
Price, Roy  
Product Development Dept  
R. M. Hairston & Company  
R. W. Beck & Associates  
Recon Research  
Regional Cogeneration Service  
RMC Lonestar  
Sacramento Municipal Utility District  
SCD Energy Solutions  
Seattle City Light  
Sempra  
Sempra Energy  
Sequoia Union HS Dist  
SESCO  
Sierra Pacific Power Company  
Silicon Valley Power  
Smurfit Stone Container Corp  
Southern California Edison  
SPURR  
St. Paul Assoc  
Stanford University  
Sutherland, Asbill & Brennan  
Tabors Caramanis & Associates  
Tecogen, Inc  
TFS Energy  
Transcanada  
Turlock Irrigation District  
U S Borax, Inc  
United Cogen Inc.  
URM Groups  
Utility Cost Management LLC  
Utility Resource Network  
Wellhead Electric Company  
Western Hub Properties, LLC  
White & Case  
WMA