

AGENDA
SONOMA CLEAN POWER AUTHORITY
BUSINESS OPERATIONS COMMITTEE
MONDAY, NOVEMBER 18, 2013
4:00 – 6:00 P.M.

Sonoma County Transportation Authority Offices
490 Mendocino Avenue, Suite 206, Santa Rosa, California

I. CALL TO ORDER

II. BUSINESS OPERATIONS COMMITTEE REGULAR CALENDAR

1. Review of Brown Act, conflict of interest rules, Public Records Act (information only, no action requested)
2. Review of power supply agreement with Calpine Energy Services
3. Agenda items for future meetings
4. Approve the October 29, 2013 meeting minutes of the Sonoma Clean Power Authority Business Operations Committee

III. PUBLIC COMMENT ON MATTERS NOT LISTED ON THE AGENDA

(Comments are restricted to matters within the Committee jurisdiction. The Committee will hear public comments at this time for up to thirty minutes. Please be brief and limit your comments to three minutes. Any additional public comments will be heard at the conclusion of the meeting.)

IV. ADJOURN

DISABLED ACCOMMODATION: If you have a disability which requires an accommodation, an alternative format, or requires another person to assist you while attending this meeting, please contact the Clerk of the Board at (707) 565-2241, as soon as possible to ensure arrangements for accommodation.



Staff Report

To: Sonoma Clean Power Authority Business Operations Committee

From: Geof Syphers, CEO
Kirby Dusel, Dalessi Management Consulting, LLC

Item: Review of Power Purchase Agreement with Calpine

Date: November 18, 2013

Requested Action: Review and provide a recommendation to the Board of Directors regarding entering into the following agreements for the purchase of renewable geothermal energy from Calpine Energy Service, L.P.:

1. Edison Electric Institute Master Power Purchase and Sale Agreement Cover Sheet with Calpine Energy Services, L.P.
2. Confirmation Letter with Calpine Energy Services, L.P. for renewable energy to be delivered during the period beginning May 1, 2014 through and including December 31, 2023.
3. Confirmation for Resource Adequacy Capacity Product for CAISO Resources to be delivered during the period beginning May 1, 2014 through and including December 31, 2023.

Background:

A key objective of the Sonoma Clean Power Authority is to provide its customers with renewable and carbon-free electricity from local sources. The proposed power purchase agreement with Calpine Energy Service, L.P. ("Calpine") will further this objective from the outset of program operation.

This item does not change the criteria the Board adopted on November 7, 2013 that ensures Phase 1 power agreements will only be executed if they allow the delivery of power to customers in 2014 at an average rate that is equal to or below PG&E's proposed 2014 average rate.

The Geysers area, comprised of 45 square miles along the Sonoma and Lake County border, is the largest complex of geothermal power plants in the world. The first power plant within the Geysers began operating in 1960, producing 11 MW; today there are 15 operating geothermal power plants with generating capacity totaling 725 MW – enough electricity to power approximately 725,000 homes. Calpine employs 300 individuals at the Geysers, benefitting the local economy. Calpine also uses recycled water delivered by the City of Santa Rosa’s Geysers Pipeline project to recharge injection wells at the Geysers, extending the life of these power-producing steam fields and providing additional environmental benefits.

Unlike other renewable resources such as solar and wind, energy production at the Geysers is highly predictable, with minimal hour-to-hour variation. This predictability simplifies resource planning and procurement efforts. Geothermal power production also results in low GHG emissions, which supports achievement of SCPA’s environmental goals.

Calpine Energy Services, L.P. and Geysers Power Company are both wholly owned subsidiaries of Calpine Corporation. Calpine Corporation was founded in 1984, and is a major U.S. power company. Calpine Corporation has B+ credit rating by Standard & Poor and is rated B1 by Moody’s Investor Services.

Similar to SCPA’s agreement with its primary energy supplier, this transaction uses a Master Power Purchase and Sale Agreement based on the industry-standard Edison Electric Institute form. This Agreement specifies the general transaction terms, while individual Confirmation Letters or Confirmation Agreements (“Confirmations”) specify the terms of specific purchase transactions. Subject to Board approval, this structure will allow SCPA to execute future Confirmations with Calpine for additional blocks of power if needed.

Under the proposed agreement, SCPA will purchase renewable energy generated at the Geysers (bundled renewable energy and environmental attributes eligible under California’s Renewable Portfolio Standards or “RPS” program); and resource adequacy capacity (reserve capacity to satisfy state-imposed planning reserve margins applicable to all load serving entities). The delivery term for both products is from May 1, 2014 through December 31, 2023. The 10-year term will provide planning and price stability for a portion of SCPA’s resource needs, and is consistent with SCPA’s Risk Management Policy.

The volume of power to be purchased from Calpine will increase over time. The proposed agreement will supply all of SCPA’s “Category 1” (in-state) Renewable Portfolio Standard requirements at the outset of program operations, as well as a portion of future renewable energy requirements. Similarly, the proposed agreement will supply a meaningful portion of SCPA’s near-term and future local reserve capacity requirements. Over the delivery term, the volumes supplied by Calpine under this agreement are projected to supply approximately 10% of total SCP energy requirements.

The following table provides additional detail regarding the proposed transaction volumes with Calpine:

Calendar Year	2014	2015	2016	2017	2018	2019	2020-2023
Resource Adequacy Capacity (MW)	10	11	12	15	16	17	18
Energy Delivery Profile	7x24	7x24	7x24	7x24	7x24	7x24	7x24
Estimated Annual Renewable Energy Production (MWh)	59,000	96,000	105,000	131,000	140,000	149,000	158,000

The price of renewable power from geothermal sources is competitive with other renewable resources available in the marketplace. The price is higher than prices typically available from resources located out of state and from remote, intermittent solar and wind resources, and the price is generally lower than prices typically available from biomass/biogas resources and local solar or wind projects. As noted, the Geysers has the benefit of being local and having production that it is significantly less variable than renewable power from intermittent sources. Overall, staff and consultants believe the proposed power purchase agreement with Calpine represents a good value for the SCP program.

As noted above, in addition to the renewable power purchase, SCPA is also proposing to purchase resource adequacy product from Calpine. The negotiated prices under the proposed agreement are reasonable and competitive, and the total cost of energy to SCPA (including the cost of power from SCPA's primary supplier and from Calpine) is consistent with SCPA's existing budget and financial plans.



Calpine Energy Services, L.P.
717 Texas Avenue, Suite 1000
Houston, Texas 77002
(713) 830-8333
Fax: (713) 830-8868

CONFIRMATION LETTER

"CONFIDENTIALITY NOTICE: The information is intended only for the use of the individual or entity named below. If you are not the intended recipient, you are hereby notified that any disclosure, copying, distribution, or taking of any action in reliance on the contents of this information is strictly prohibited. If you have received this transmission in error, please immediately notify us by telephone to arrange for return of the documents."

Date: [_____, 2013]
To: [SONOMA CLEAN POWER AUTHORITY]
Attention: _____
Fax No.: _____
From: Calpine Energy Services, L.P.
Re: Calpine Deal Number: [XX]
Calpine Agreement Number: [XX]

The purpose of this Confirmation is to confirm the terms and conditions of the transaction (the "Transaction") agreed upon by Buyer and Seller as of the Trade Date specified below. This Confirmation supplements, forms a part of, and is subject to that certain Master Power Purchase and Sale Agreement dated [_____, 2013] between Buyer and Seller, as may have been previously amended, including by the Master Power Purchase and Sale Agreement Cover Sheet dated [_____, 2013] (the "Master Agreement"). All provisions contained in or incorporated by reference in the Master Agreement will govern this Confirmation except as expressly modified herein. The Master Agreement shall be governed by the laws of the state governing the Master Agreement as therein set forth regardless of the law governing this Confirmation as set forth below. Subject to any contrary provisions in the Master Agreement, in the event of any inconsistency between the provisions of the Master Agreement and this Confirmation, this Confirmation will prevail for the purpose of this Transaction.

We confirm the following terms of our Transaction:

Buyer: [SONOMA CLEAN POWER AUTHORITY]
[ADDRESS]
[CITY, STATE, ZIP]
Attn: _____

Seller: Calpine Energy Services, L.P.
717 Texas Avenue, Suite 1000,
Houston, Texas 77002
Attn: Contract Administration, Tel: (713) 830-8751

and

Calpine Energy Services, L.P.
4160 Dublin Boulevard, Suite 100,
Dublin, California
Attn: Rosemary Antonopoulos, Assistant General Counsel
Tel: (925) 557-2283

Trade Date: [_____, 2013].

Contract Period: May 1, 2014 through December 31, 2023, inclusive.

Product: Delivered Energy which meets the criteria for section 399.16(b)(1) of the California Public Utilities Code, comprised of: (1) Unit Firm energy and (2) Renewable Energy Credits generated by the Project and transferred by Seller through a WREGIS Certificate to Buyer under this Confirmation.

Payment: Buyer shall pay to Seller in arrears for each month during the Delivery Term pursuant to the following formula:

Σ (for each hour of the month) [(THEQP) – (the Day-Ahead Index Energy Price * THEQ)]

Where:

“THEQ” (total hourly energy quantity) = Delivered Energy (in MWh)

“THEQP” (total hourly energy quantity payment) = THEQ * the then applicable Contract Price

“Contract Price” = [\$XX/MWh].

Contract Quantity: 2014 – 10 MW 7 X 24 energy delivery
2015 – 11 MW 7 X 24 energy delivery
2016 – 12 MW 7 X 24 energy delivery
2017 – 15 MW 7 X 24 energy delivery
2018 – 16 MW 7 X 24 energy delivery
2019 – 17 MW 7 X 24 energy delivery
2020 – 18 MW 7 X 24 energy delivery
2021 – 18 MW 7 X 24 energy delivery
2022 – 18 MW 7 X 24 energy delivery
2023 – 18 MW 7 X 24 energy delivery

Delivery Point: NP15 EZ Gen Hub

Meter Data: To provide evidence of Delivered Energy, in connection with submission of its monthly invoice Seller shall provide to Buyer records of metered data, including CAISO metering and transaction data sufficient to document and verify the generation and delivery of the Delivered Energy

by the Project (and upon Buyer's reasonable request access to any records, including invoices or settlement data from the CAISO, necessary to verify the invoice).

**Renewable Energy
Credit Certificates:**

To provide evidence of Green Attributes, Seller shall transfer to Buyer the Renewable Energy Credits to Buyer's WREGIS account(s) within fifteen (15) Business Days after WREGIS creates certificates from each month's meter data (approximately four months after flow under current WREGIS operating conditions). REC deliveries will be made by transfer of WREGIS Certificates to Buyer's WREGIS account pursuant to WREGIS Operating Rules. Seller shall, at its option, transfer the WREGIS Certificate using forward certificated transfer or any other transfer permitted under the WREGIS Operating Rules. With respect to REC deliveries, Product flow shall be considered the month in which the WREGIS Certificates are created by WREGIS under current operating conditions.

Scheduling and

CAISO Revenues: Seller shall be solely responsible for scheduling with the CAISO the delivery of all energy associated with the Delivered Energy under this Confirmation or otherwise causing the delivery of such energy to the CAISO Grid, and shall be entitled to retain for its account all revenues received from the CAISO in respect of the sale of such energy to the CAISO.

ADDITIONAL TERMS:

- a) Seller, and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement that: (i) the Project qualifies and is certified by the CEC as an Eligible Renewable Energy Resource ("ERR") as such term is defined in Public Utilities Code Section 399.12 or Section 399.16; and (ii) the Project's output delivered to Buyer qualifies under the requirements of the California Renewables Portfolio Standard. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law.
- b) Seller shall agree to reasonably assist Buyer with Buyer's California Renewables Portfolio Standard Program compliance filings as requested by Buyer. In connection with the foregoing, neither Seller nor its affiliates shall be required to (i) expend or incur any legal costs (either internal or external) in providing such assistance or (ii) prepare or defend a filing or otherwise advocate on behalf of Buyer.
- c) This agreement and the rights and duties of the Parties hereunder shall be governed by and construed, enforced and performed in accordance with the laws of the state of California, without regard to principles of conflicts of law. TO THE EXTENT ENFORCEABLE AT SUCH TIME, EACH PARTY WAIVES ITS RESPECTIVE RIGHT TO ANY JURY TRIAL WITH RESPECT TO ANY LITIGATION ARISING UNDER OR IN CONNECTION WITH THIS AGREEMENT.

- d) If (1) Seller is not able to generate electric energy at the Project due to a Forced Outage or Force Majeure, or (2) Seller's representations and warranties set forth in Section (a) above and/or in the definition of Green Attributes of this Confirmation are no longer true due to a change in law and cannot be cured by Seller's commercially reasonable efforts, then either Party shall have the right to terminate this Confirmation upon delivery of notice to the other Party and neither Party shall owe or be liable to the other Party for any payment for damages or for a termination payment nor shall any such termination constitute an Event of Default.
- e) Seller shall, at its sole cost and expense, take all actions and execute all documents or instruments necessary to ensure that the RECs sold hereunder can be transferred to Buyer utilizing WREGIS. Seller shall comply with all laws, including, without limitation, the WREGIS Operating Rules effective as of the date of this Confirmation regarding the certification and transfer of RECs sold hereunder to Buyer. During the Contract Period, Seller shall have in-place, or shall submit documentation to establish, an account with WREGIS. Seller shall transfer RECs to Buyer in accordance with WREGIS reporting protocols and WREGIS Operating Rules. Seller shall be responsible for all customary expenses associated with WREGIS Certificate issuance fees and utilizing WREGIS to transfer the RECs to Buyer, or its designee, except for any costs incurred by Buyer with respect to Buyer's registration with WREGIS and Buyer's WREGIS account.
- f) Seller hereby provides and conveys all Green Attributes associated with all electricity generation from the Project to Buyer as part of the Product being delivered. Seller represents and warrants that Seller holds the rights to all Green Attributes from the Project, and Seller agrees to convey and hereby conveys all such Green Attributes to Buyer as included in the delivery of the Product from the Project.
- g) Because WREGIS Certificates will only be created for whole MWh amounts of output generated, any fractional MWh amounts will be carried forward during the Contract Period until sufficient generation is accumulated for the creation of a WREGIS Certificate.
- h) Seller shall be responsible, at its sole expense, for validating, adjusting, and disputing data with WREGIS so that the data from the Project's meter(s) corresponds with the quantity of RECs conveyed hereunder. Upon request Seller shall provide Buyer with copies of all correspondence or documentation to or from WREGIS with respect to any such validation, adjustment, or dispute.
- i) Without limiting Seller's obligations, if a WREGIS Certificate deficit is caused solely by an error or omission of WREGIS or the California Independent System Operator, the Parties shall cooperate in good faith to cause WREGIS to correct its error or omission. If WREGIS changes the WREGIS Operating Rules after the Confirmation Trade Date or applies the WREGIS Operating Rules in a manner inconsistent with this Confirmation, the Parties promptly shall modify this Agreement as reasonably required to preserve the intended economic benefits of this transaction for both Parties, and so cause and enable Seller to transfer to Buyer's WREGIS Account the RECs sold to Buyer hereunder.
- j) Seller and, if applicable, its successors, represents and warrants that throughout the Delivery Term of this Agreement the Renewable Energy Credits transferred to Buyer conform to the definition and attributes required for compliance with the California Renewables Portfolio Standard, as set forth in California Public Utilities Commission

Decision 08-08-028, and as may be modified by subsequent decision of the California Public Utilities Commission or by subsequent legislation. To the extent a change in law occurs after execution of this Agreement that causes this representation and warranty to be materially false or misleading, it shall not be an Event of Default if Seller has used commercially reasonable efforts to comply with such change in law.

- k) Seller warrants that all necessary steps to allow the Renewable Energy Credits transferred to Buyer to be tracked in the Western Renewable Energy Generation Information System will be taken prior to the first delivery under the contract.
- l) Notwithstanding anything else in this Confirmation, Buyer acknowledges and agrees that the sale of Energy and RECs by Seller from the Project is nonexclusive.
- m) Buyer and Seller agree that Section 10.3 of the Master Agreement is inapplicable to the Unit Firm energy component of the Transaction contemplated by this Confirmation.
- n) This Confirmation shall not be effective unless and until that certain Confirmation for Resource Adequacy Capacity Product for CAISO Resources dated as of even date herewith has been fully executed by the parties thereto and the Transaction contemplated thereunder has become effective.
- o) [Provisions for credit to be discussed]

ADDITIONAL DEFINITIONS:

“Agreement” or “agreement” means this Confirmation.

“commercially reasonable efforts” shall be limited and capped to Seller incurring an aggregate total incremental capital expenditure and expenses of \$10,000 per calendar year of the Delivery Term.

“California Renewables Portfolio Standard” means the renewable energy program and policies established by Senate Bills 1038 and 1078 and 2 (1X) codified in California Public Utilities Code Sections 399.11 et seq. and California Public Resources Code Sections 25740 through 25751, as such provisions are amended or supplemented from time to time.

“CAISO” means the California Independent System Operator Corporation or any successor entity performing similar functions.

“CAISO Grid” means the system of transmission lines and associated facilities of the Participating Transmission Owner that have been placed under the CAISO’s operational control.

“CAISO Tariff” means the CAISO Operating Agreement and Tariff, including the rules, protocols, procedures and standards attached thereto, as it may be amended, modified, supplemented or replaced (in whole or in part) from time to time.

“CEC” means the California Energy Commission, or any successor entity.

“CPUC” means the California Public Utilities Commission, or any successor entity.

“Day Ahead Index Energy Price” means for any given hour, the then-applicable NP15 EZ Gen Hub day-ahead Locational Marginal Price (in \$/MWh and including congestion, energy and losses components) as posted and updated by the CAISO.

“Delivered Energy” means energy generated and metered from the Project with associated Green Attributes that is scheduled, delivered and sold to CAISO and allocated to Buyer by Seller in connection with Buyer’s monthly invoice.

“Delivery Term” means May 1, 2014 through December 31, 2023, inclusive, and as to the recordation of the RECs, the continued period during which WREGIS creates the applicable WREGIS Certificates as described herein under Renewable Energy Credit Certificates.

The definition of “Force Majeure” set forth in the Master Agreement with respect to RECs to be transferred hereunder shall include events of Force Majeure that temporarily disrupt or suspend the operation or functioning of WREGIS preventing the transfer of RECs between accounts.

“Green Attributes” means any and all credits, benefits, emissions reductions, offsets, and allowances, howsoever entitled, attributable to the generation from the Project, and its avoided emission of pollutants. Green Attributes include but are not limited to Renewable Energy Credits, as well as: (1) any avoided emission of pollutants to the air, soil or water such as sulfur oxides (SOx), nitrogen oxides (NOx), carbon monoxide (CO) and other pollutants; (2) any avoided emissions of carbon dioxide (CO₂), methane (CH₄), nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride and other greenhouse gases (GHGs) that have been determined by the United Nations Intergovernmental Panel on Climate Change, or otherwise by law, to contribute to the actual or potential threat of altering the Earth’s climate by trapping heat in the atmosphere;¹ (3) the reporting rights to these avoided emissions, such as Green Tag Reporting Rights. Green Tag Reporting Rights are the right of a Green Tag Purchaser to report the ownership of accumulated Green Tags in compliance with federal or state law, if applicable, and to a federal or state agency or any other party at the Green Tag Purchaser’s discretion, and include without limitation those Green Tag Reporting Rights accruing under Section 1605(b) of The Energy Policy Act of 1992 and any present or future federal, state, or local law, regulation or bill, and international or foreign emissions trading program. Green Tags are accumulated on a MWh basis and one Green Tag represents the Green Attributes associated with one (1) MWh of Energy. Green Attributes do not include (i) any energy, capacity, reliability or other power attributes from the Project, (ii) production tax credits associated with the construction or operation of the Project and other financial incentives in the form of credits, reductions, or allowances associated with the project that are applicable to a state or federal income taxation obligation, (iii) fuel-related subsidies or “tipping fees” that may be paid to Seller to accept certain fuels, or local subsidies received by the generator for the destruction of particular preexisting pollutants or the promotion of local environmental benefits, or (iv) emission reduction credits encumbered or used by the Project for compliance with local, state, or federal operating and/or air quality permits. If the Project is a biomass or biogas facility and Seller receives any tradable Green Attributes based on the greenhouse gas reduction benefits or other emission offsets attributed to its fuel usage, it shall provide Buyer with sufficient Green Attributes to ensure that there are zero net emissions associated with the production of electricity from the Project.

¹ Avoided emissions may or may not have any value for GHG compliance purposes. Although avoided emissions are included in the list of Green Attributes, this inclusion does not create any right to use those avoided emissions to comply with any GHG regulatory program.

“Green Tag Purchaser” means Buyer.

“Locational Marginal Price” has the meaning specified in the CAISO Tariff.

“NERC” means the North American Electric Reliability Corporation.

“NP15 EZ Gen Hub” has the meaning specified in the CAISO Tariff.

“Participating Transmission Owner” means Pacific Gas and Electric Company in its capacity as the owner of certain transmission facilities placed under the operational control of the CAISO pursuant to the terms of the CAISO Tariff.

“Project” means one or more of the geothermal power plants owned or controlled by Seller and located in Lake and Sonoma Counties, California.

“Renewable Energy Credit” or “REC” has the meaning set forth in the California Public Utilities Code Section 399.12 and CPUC Decision 08-08-028, as may be amended or supplemented from time to time or as further supplemented by applicable law, is evidenced by a WREGIS Certificate, and is equivalent to one (1) MWh of energy from the Project which shall be qualified and certified as an ERR.

“WREGIS” means Western Renewable Energy Generating Information System.

“WREGIS Certificate” has the same meaning as “Certificate” as defined by WREGIS in the WREGIS Operating Rules and are designated by applicable law as eligible for complying with the California Renewables Portfolio Standard.

“WREGIS Operating Rules” means the operating rules and requirements adopted by WREGIS, as amended from time to time.

Notwithstanding anything in the Master Agreement to the contrary, this Confirmation will become effective only upon its execution by both Parties. Please confirm that the foregoing correctly sets forth the terms of our agreement by executing the copy of this Confirmation and returning it to us via the above-referenced facsimile number.

CALPINE ENERGY SERVICES, L.P.

[SONOMA CLEAN POWER AUTHORITY]

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

**MASTER POWER PURCHASE AND SALE AGREEMENT
COVER SHEET**

This *Master Power Purchase and Sale Agreement* (“*Master Agreement*”) is made as of the following date: _____ (“*Effective Date*”). The *Master Agreement*, together with the exhibits, schedules and any written supplements hereto, the Party A Tariff, if any, the Party B Tariff, if any, any designated collateral, credit support or margin agreement or similar arrangement between the Parties and all Transactions (including any confirmations accepted in accordance with Section 2.3 hereto) shall be referred to as the “*Agreement*.” The Parties to this *Master Agreement* are the following:

Calpine Energy Services, L.P. (“*Calpine*” or “*Party A*”) [Sonoma Clean Power Authority] (“*SCPA*” or “*Party B*”)

All Notices:

Street: 717 Texas Avenue, Suite 1000

City: Houston, TX Zip: 77002

Attn: Contract Administration

Facsimile: (713) 830-8751

CommodityContracts@calpine.com

Duns: 16-966-8212

Federal Tax ID Number: 77-0212977

All Notices:

Street:

City:

Attn:

Phone:

Facsimile:

Duns:

Federal Tax ID Number:

With copy to:

4160 Dublin Blvd., Suite 100

Dublin, CA 94568

Attn: Legal Department

Facsimile: (925) 470-9608

Invoices:

Attn: Power Accounting

Phone: (713) 830-2000

Facsimile: (713) 830-8749

Invoices:

Attn:

Phone:

Facsimile:

Confirmations:

Attn: Confirmations Department

Phone: (713) 830-8723

Facsimile: (713) 830-8868

Confirmations:

Attn:

Phone:

Facsimile:

Scheduling:

Attn: Scheduling

Phone: (713) 830-8353

Facsimile: (713) 830-8749

Scheduling:

Attn:

Phone:

Facsimile:

Payments:

Attn: Power Accounting

Phone: (713) 830-2000

Facsimile: (713) 830-8749

Payments:

Attn:

Phone:

Facsimile:

Wire Transfer:

BNK: Union Bank, N.A.

ABA: 122000496

ACCT: 187-0031951

Wire Transfer:

BNK:

ABA:

ACCT:

Credit and Collections:

Attn: Director of Corporate Credit
Phone: (713) 332-5257
Facsimile: (713) 570-4764

With additional Notices of an Event of Default or
Potential Event of Default to:

Attn: Risk Management Counsel
Facsimile: (713) 830-8751

with copy to:

Attn: Chief Legal Officer
Facsimile: (832) 325-1508

and

Attn: Assistant General Counsel
Facsimile: (925) 479-9608

Credit and Collections:

Attn:
Phone:
Facsimile:

With additional Notices of an Event of Default or
Potential Event of Default to:

Attn:
Phone:
Facsimile:

The Parties hereby agree that the General Terms and Conditions are incorporated herein, and to the following provisions as provided for in the General Terms and Conditions:

Party A Tariff Tariff: Rate Schedule #1 Dated: Sept. 21, 2000 Docket Number: ER-00-3562-000

Party B Tariff Tariff: _____ Dated: _____ Docket Number: _____

Article Two

Transaction Terms and Conditions Optional provision in Section 2.4. If not checked, inapplicable.

Article Four

Remedies for Failure to Deliver or Receive Accelerated Payment of Damages. If not checked, inapplicable.

Article Five

Events of Default; Remedies Cross Default for Party A:
 Party A: Cross Default Amount:
 Other Entity: Cross Default Amount:
 Cross Default for Party B:
 Party B: Cross Default Amount: \$500,000.00
 Other Entity: Cross Default Amount:

5.6 Closeout Setoff

- Option A (Applicable if no other selection is made.)
- Option B - Affiliates shall have the meaning set forth in the Agreement unless otherwise specified as follows: _____
- Option C (No Setoff)

Open Item

Article 8

Credit and Collateral Requirements

8.1 Party A Credit Protection:

(a) Financial Information:

- Option A
- Option B Specify: _____
- Option C Specify: _____

(b) Credit Assurances:

- Not Applicable
- Applicable

(c) Collateral Threshold:

- Not Applicable
- Applicable

If applicable, the provisions of Section 8.1 (c) of the Agreement shall be replaced by the provisions of the Collateral Annex attached hereto.

(d) Downgrade Event:

- Not Applicable
- Applicable

If applicable, complete the following:

- It shall be a Downgrade Event for Party B if Party B's Guarantor's Credit Rating falls below _____ from S&P and _____ from Moody's or if Party B's Guarantor is not rated by either S&P or Moody's
- Other:
Specify:

(e) Guarantor for Party B:

Guarantee Amount: N/A

8.2 Party B Credit Protection:

(a) Financial Information:

- Option A
- Option B Specify: Calpine Corporation
- Option C Specify: as available

(b) Credit Assurances:

- Not Applicable
- Applicable

(c) Collateral Threshold:

- Not Applicable
- Applicable

If applicable, the provisions of Section 8.2 (c) of the Agreement shall be replaced by the provisions of the Collateral Annex attached hereto.

(d) Downgrade Event:

- Not Applicable
- Applicable

If applicable, complete the following:

- It shall be a Downgrade Event for Party A if Party A's Guarantor's Credit Rating falls below ____ from S&P and ____ from Moody's or if

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Party A's Guarantor is not rated by either S&P or Moody's

Other:
Specify:

(e) Guarantor for Party A: Not Applicable.

Guarantee Amount: N/A

Article 10

Confidentiality Confidentiality Applicable If not checked, inapplicable.

Schedule M

- Party A is a Governmental Entity or Public Power System
- Party B is a Governmental Entity or Public Power System
- Add Section 3.6. If not checked, inapplicable
- Add Section 8.6. If not checked, inapplicable

Other Changes: Specify, if Any: See "Other Changes" Attached Hereto

**“OTHER CHANGES” TO EEI STANDARDIZED
MASTER POWER PURCHASE AND SALE AGREEMENT**

ARTICLE ONE: GENERAL DEFINITIONS

Section 1.1 is amended by adding the following sentence at the end of the definition of “Affiliate”: “The Parties hereby agree and acknowledge that the members of Party B shall not constitute or otherwise be deemed an “Affiliate” for the purposes of this Master Agreement or any Confirmation executed in connection therewith.”.

Section 1.12 is amended by deleting the word “issues” and replacing it with the word “issuer”.

Section 1.23 is amended by adding at the end of clause (iii) the phrase “(except to the extent caused by an event or circumstance that would otherwise constitute Force Majeure)”.

Section 1.27 is amended by adding at the end of the first sentence “; provided that a Party may only transfer the Letter of Credit to any person or entity succeeding to all or substantially all of the assets of such Party.”

Section 1.50 (Recording) is hereby deleted in its entirety.

Section 1.51 is amended by (i) adding the phrase “for delivery” immediately before the phrase “at the Delivery Point” in the second line and (ii) deleting the phrase “at Buyer’s option” from the fifth line and replacing it with the phrase “absent a purchase”.

Section 1.53 is amended by (i) deleting the phrase “at the Delivery Point” from the second line, and (ii) deleting the phrase “at Seller’s option” from the fifth line and replacing it with the phrase “absent a sale”.

ARTICLE TWO: TRANSACTIONS TERMS AND CONDITIONS

Section 2.1 is amended by deleting “orally or, if expressly required by either Party with respect to a particular Transaction,” in the 2nd line.

In Section 2.4, delete “either orally or” after “agreed to” in the 7th line.

Section 2.5 is hereby deleted in its entirety.

The following shall be added as Section 2.6:

Index Transactions. If the Contract Price for a Transaction is determined by reference to a Price Source, then:

- (a) **Market Disruption.** If a Market Disruption Event occurs on any one or more days during a Determination Period (each day, a “Disrupted Day”), then:

The fallback Floating Price, if any, specified by the Parties in the relevant Confirmation shall be the Floating Price for each Disrupted Day.

If the Parties have not specified a fallback Floating Price, then the Parties will endeavor, in good faith and using commercially reasonable efforts, to agree on a substitute Floating Price, taking into consideration, without limitation, guidance, protocols or other recommendations or conventions issued or employed by trade organizations or industry groups in response to the Market Disruption Event and other prices published by the Price Source or alternative price sources with respect to the Delivery Point or comparable Delivery Points that may permit the Parties to derive the Floating Price based on historical differentials.

If the Price Source retrospectively issues a Floating Price in respect of a Disrupted Day (a “Delayed Floating Price”) before the parties agree on a substitute Floating Price for such day, then the Delayed Floating Price shall be the Floating Price for such Disrupted Day. If a Delayed Price is issued by the Price Source in respect of a Disrupted Day after the Parties agree on a substitute Floating Price for such day, the substitute Floating Price agreed upon by the Parties will remain the Floating Price without adjustment unless the Parties expressly agree otherwise.

If the Parties cannot agree on a substitute Floating Price and the Price Source does not retrospectively publish or announce a Floating Price, in each case, on or before the fifth Business Day following the first Trading Day on which the Market Disruption Event first occurred or existed, then the Floating Price for each Disrupted Day shall be determined by taking the arithmetic mean of quotations requested from four leading dealers in the relevant market that are unaffiliated with either Party and mutually agreed upon by the Parties (“Specified Dealers”), without regard to the quotations with the highest and lowest values, subject to the following qualifications:

- 1) If exactly three quotations are obtained, the Floating Price for each such Disrupted Day will be the quotation that remains after disregarding the quotations having the highest and lowest values.
- 2) If fewer than three quotations are obtained, the Floating Price for each such Disrupted Day will be the average of the quotations obtained.
- 3) If the Parties cannot agree upon four Specified Dealers, then each of the Parties will, acting in good faith and in a commercially reasonable manner, select up to two Specified Dealers separately, and those selected dealers shall be the Specified Dealers.

Unless otherwise agreed, if at any time the Parties agree on a substitute Floating Price for any Disrupted Day, then such substitute Floating Price shall be the Floating Price for such Disrupted Day, notwithstanding the subsequent publication or announcement of a Delayed Floating Price by the relevant Price Source or any quotations obtained from Specified Dealers.

“Determination Period” means each calendar month a part or all of which is within the Delivery Period of a Transaction.

“Exchange” means, in respect of a Transaction, the exchange or principal trading market specified as applicable to the relevant Transaction.

“Floating Price” means a Contract Price specified in a Transaction that is based upon a Price Source.

“Market Disruption Event” means, with respect to any Price Source, any of the following events:

(a) the failure of the Price Source to announce, publish or make available the specified Floating Price or information necessary for determining the Floating Price for a particular day; (b) the failure of trading to commence on a particular day or the permanent discontinuation or material suspension of trading in the relevant options contract or commodity on the Exchange, RTO or in the market specified for determining a Floating Price; (c) the temporary or permanent discontinuance or unavailability of the Price Source; (d) the temporary or permanent closing of any Exchange or RTO specified for determining a Floating Price; or (e) a material change in the formula for or the method of determining the Floating Price by the Price Source or a material change in the composition of the Product.

“Price Source” means, in respect of a Transaction, a publication or such other origin of reference, including an Exchange or RTO, containing or reporting or making generally available to market participants (including by electronic means) a price, or prices or information from which a price is determined, as specified in the relevant Transaction.

“RTO” means any regional transmission operator or independent system operator.

“RTO Transaction” means a Transaction in which the Price Source is an RTO.

“Trading Day” means a day in respect of which the relevant Price Source ordinarily would announce, publish or make available the Floating Price.

- (b) Corrections to Published Prices. If the Floating Price published, announced or made available on a given day and used or to be used to determine a relevant price is subsequently corrected by the relevant Price Source (i) within 30 days of the original publication, announcement or availability, or (ii) in the case of RTO Transactions only, within such longer time period as is consistent with the RTO’s procedures and guidelines, then either Party may notify the other Party of that correction and the amount (if any) that is payable as a result of that correction. If, not later than thirty (30) days after publication or announcement of that correction, a Party gives notice that an amount is so payable, the Party that originally either received or retained such amount will, not later than three (3) Business Days after such notice is effective, pay, subject to any applicable conditions precedent, to the other Party that amount, together with interest at the Interest Rate for the period from and including the day on which payment originally was (or was not) made to but excluding the day of payment of the refund or payment resulting from that correction. Notwithstanding the foregoing, corrections shall not be made to any Floating Prices agreed upon by the Parties or determined based on quotations from Specified Dealers pursuant to paragraph (a) above unless the Parties expressly agree otherwise.
- (c) Rounding. When calculating a Floating Price, all numbers shall be rounded to four (4) decimal places. If the fifth (5th) decimal number is five (5) or greater, then the fourth (4th) decimal number shall be increased by one (1), and if the fifth (5th) decimal number is less than five (5), then the fourth (4th) decimal number shall remain unchanged.

ARTICLE FIVE: EVENTS OF DEFAULT; REMEDIES

Section 5.1(a) is amended by changing “three (3) Business Days” to “five (5) Business Days”.

Section 5.1(d) is amended by adding the following after “Bankrupt”: “, provided, however, if the presentation of an involuntary petition for the winding-up or liquidation of a party (an “Involuntary Proceeding”) is commenced, such Involuntary Proceeding shall not be a Default in respect of that party unless the Involuntary Proceeding has not been withdrawn, dismissed, discharged, stayed or restrained within 60 days of its commencement and in such event the other party shall be entitled to exercise its rights and remedies under this Agreement in respect thereof;”.

Section 5.1(g) is amended by (i) adding “after the Effective Date of this Agreement” after the words “occurrence and continuation”, (ii) deleting the phrase “, or becoming capable at such time of being declared,” after the word “becoming” and before the word “immediately” in the eighth and ninth lines, and (iii) adding “provided, however, that no default or event of default shall be deemed to have occurred under this Section 5.1(g) to the extent that any applicable cure period or grace period is available;” at the end of the last clause.

Section 5.1 is further amended by replacing the period at the end of subsection (h) with a semicolon, and adding new subsections “(i),” “(j)” and “(k)”, which read as follows:

“(i) during any consecutive ninety (90) day period, there have occurred five (5) or more “Seller Failures” as that term is used in Section 4.1, under any and all Transactions, regarding which the Seller shall be deemed to be the Defaulting Party, and Buyer shall also be entitled to its remedies under Section 4.1;”

“(j) a representation or warranty with respect to the Defaulting Party’s financial statement delivered by a Party pursuant to Section 8.1(a) or Section 8.2(a), as applicable, that is false or misleading if such false or misleading statement is not remedied within five (5) Business Days after written notice; or”

“(k) revocation or suspension by the Federal Energy Regulatory Commission of Party A’s authorization to make sales at market-based rates, and Party A is unable to reinstate such authorization within ninety (90) days.”

Section 5.2 is amended to reverse the placement of “(i)” and “to” in the first sentence.

Section 5.2 is amended to delete the following phrase from the last two lines: “under applicable law on the Early Termination Date, as soon thereafter as is reasonably practicable).”

The following shall be added to the end of Section 5.2: “under applicable law on the Early Termination Date, then each such Transaction (individually, an “Excluded Transaction” and collectively, the “Excluded Transactions”) shall be terminated as soon thereafter as reasonably practicable), and upon termination shall be deemed to be a Terminated Transaction and the Termination Payment payable in connection with all such Transactions shall be calculated in accordance with Section 5.3 below. The Gains and Losses for each Terminated Transaction shall be determined by calculating the amount that would be incurred or realized to replace or to provide the economic equivalent of the remaining payments or deliveries in respect of that Terminated Transaction. The Non-Defaulting Party (or its agent) may determine its Gains and Losses by reference to information either available to it internally or supplied by one or more third parties including, without limitation, quotations (either firm or indicative) of relevant rates, prices, yields, yield curves, volatilities, spreads or other relevant market data in the relevant markets. Third parties supplying such information may include, without limitation, dealers in the relevant markets, end-users of the relevant product, information vendors and other sources of market information. If the Non-Defaulting Party’s aggregate Gains exceeds its aggregate Losses and Costs, if any, resulting from the termination of this Agreement, the Settlement Amount shall be zero, notwithstanding any provision in this Section or any provision in this Agreement to the contrary.”

In Section 5.7, delete “(a)” and the phrase “or (b) a Potential Event of Default” in the second line.

ARTICLE SEVEN: LIMITATIONS

Section 7.1 shall be amended by: (a) deleting “Except as set forth herein” from the first sentence and “Unless expressly herein provided” from the fifth sentence and (b) adding “Notwithstanding anything in this Agreement to the contrary” to the beginning of the fifth sentence, and “set forth in this Agreement” after “indemnity provision” and before “or otherwise”, also in the fifth sentence.

ARTICLE EIGHT: CREDIT AND COLLATERAL REQUIREMENTS

Section 8.1(a) is amended by adding the phrase “, provided however, for the purposes of this (i) and (ii), if Party B’s financial statements are publicly available electronically, then Party B shall be deemed to have met this requirement” after the phrase “a copy of Party B’s quarterly report containing unaudited consolidated financial statements for such fiscal quarter”.

Section 8.2(a) is amended by adding the phrase “, provided however, for the purposes of this (i) and (ii), if Party A’s financial statements are publicly available electronically, then Party A shall be deemed to have met this requirement” after the phrase “a copy of Party A’s quarterly report containing unaudited consolidated financial statements for such fiscal quarter”.

Section 8.3 is amended by adding the following after the last sentence in Section 8.3: “Notwithstanding the foregoing, however, Party A confirms and acknowledges that any interest it has in the operating account of Party B held by the Secured Lender (as defined in Section 8.4) is junior and subordinate to the security interest in the operating account held by the Secured Lender.”

The following shall be added as a new Section 8.4:

“Lender Protection Provisions.

- (a) Party B’s Right to Encumber. Notwithstanding anything to the contrary set forth in this Master Agreement, Party B is hereby given the right (exercisable at any time and from time to time) by Party A, in addition to any other rights herein granted, without Party A’s prior written consent, approval, or authorization, to hypothecate, pledge, or encumber its interest in this Master Agreement in favor of a lender (a “Lender Security Interest”) and to assign such interest in this Master Agreement as collateral

security for such Lender Security Interest. The holder of any Lender Security Interest shall be referred to herein as the "Secured Lender" and shall be entitled to the rights and benefits as provided herein.

(b) Notices. Provided that Secured Lender shall have notified Party A in writing of its status as a Secured Lender and its name and address, Party A thereafter shall give to such Secured Lender a copy of each notice of default at the same time as any such notice shall be given by Party A to Party B, such copy to be addressed to Secured Lender at the address last furnished to Party A. Party A shall not serve a notice of cancellation or termination on Party B unless a copy of any prior notice of default shall have been given to Secured Lender and the time for the curing of such default pursuant to Section 8.4(c) shall have expired without the same having been cured, and no such notice of default shall be effective as to such Secured Lender not receiving actual notice thereof. Party A agrees to notify a Secured Lender in writing of the failure of Party B to cure a default within any applicable grace period and of the curing of any default by Party B, and the Secured Lender shall have the additional cure periods pursuant to Section 8.4(c). The performance by Secured Lender of any condition or agreement on the part of Party B to be performed hereunder will be deemed to have been performed with the same force and effect as though performed by Party B.

(c) Right to Cure. Party A will accept performance by Secured Lender within the following periods of any obligation to be performed by Party B under this Master Agreement, with the same force and effect as though timely performed by Party B:

(i) As to any sums payable hereunder, within ten (10) days after written notice from Party A that Party B has not cured such default within the period provided in Section 5.1(a).

(ii) As to all other Events of Default, within ten (10) days after written notice from Party A that Party B has not cured within the applicable period provided in Section 5.1, or, if within such additional ten (10) day period such Event of Default cannot be cured, to commence such cure within such ten (10) day period and diligently and continuously proceed therewith to completion.

(d) Exercise of Remedies. In the event of any Event of Default by Party B, and if, before the expiration of the applicable grace period specified in Section 8.4(c), Secured Lender gives Party A written notice that it intends to undertake the curing of such Event of Default, or to cause the same to be cured, and immediately commences and then proceeds with all due diligence to do so by performance on behalf of Party B of its obligations under this Master Agreement, then Party A shall not exercise its right to terminate this Master Agreement during the time that the Secured Lender shall require to complete its remedies under its Lender Security Interest; provided, however:

(i) that Secured Lender proceeds, promptly and with due diligence, to exercise the remedies under its Lender Security Interest and thereafter prosecutes and completes the same with all due diligence; and

(ii) that Secured Lender shall pay to Party A any and all amounts required to be paid by Party B hereunder that have accrued and those that shall become due and payable during such period."

ARTICLE TEN: MISCELLANEOUS

Section 10.4 is amended to add the phrase "unless a Claim is due to such Party's gross negligence, willful misconduct or bad faith" at the end of the first sentence of Section 10.4.

In Section 10.5, in clause (ii) thereof replace the words "affiliate" and "affiliate's" with, respectively, "Affiliate" and "Affiliate's", and in clause (iii) thereof immediately after the words "substantially all of the assets" insert the words "of such Party and".

In Section 10.5, delete the phrase “which consent may be withheld in the exercise of its sole discretion” in the first line and replace it with “which consent shall not be unreasonably withheld.”

In Section 10.6 change “State of New York” to “State of California” and add the following after the last line: “FOR ANY ACTION OR PROCEEDING RELATING TO THIS AGREEMENT OR ANY TRANSACTION, EACH PARTY SUBMITS TO THE EXCLUSIVE JURISDICTION OF THE FEDERAL COURTS LOCATED IN SAN FRANCISCO, CALIFORNIA, OR IF SUCH FEDERAL COURTS DO NOT HAVE JURISDICTION, TO THE EXCLUSIVE JURISDICTION OF THE STATE COURTS OF THE STATE OF CALIFORNIA LOCATED IN SAN FRANCISCO, CALIFORNIA, AND EACH PARTY EXPRESSLY WAIVES ANY OBJECTION IT MAY HAVE TO SUCH JURISDICTION OR THE CONVENIENCE OF SUCH FORUM.”

Section 10.8 is amended by adding the following to the last sentence: “and the rights of either Party pursuant to (i) Article 5, (ii) Section 7.1, (iii) Section 10.11, (iv) Waiver of Jury Trial provisions, if applicable, (v) Arbitration provisions, if applicable, (vi) the obligation of either Party to make payments hereunder, (vii) Section 10.6, and (viii) Section 10.13 shall also survive the termination of the Agreement or any Transaction.”

Section 10.11 Confidentiality is amended to read in its entirety as follows:

“If the Parties have elected on the Cover Sheet to make this Section 10.11 applicable to this Master Agreement, the contents of the Transactions and all other documents relating to this Agreement, if any, and any information made available by a Party and/or any guarantor of a Party (“Disclosing Party”) to the other Party (“Non-Disclosing Party”) with respect to this Agreement or any Transaction, if any, are confidential and shall not be disclosed to any third party, except for such information (i) as may become generally available to the public, (ii) as may be required or appropriate in response to any summons, subpoena, request from a regulatory body, or otherwise in connection with any litigation or to comply with any applicable law, order, regulation, ruling, regulatory request, accounting disclosure rule or standard or any exchange, control area or independent system operator rule, (iii) as may be obtained from a non-confidential source that disclosed such information in a manner that did not violate its obligations to the Disclosing Party, if any, in making such disclosure, or (iv) as may be furnished to the Non-Disclosing Party’s Affiliates, and to each of such person’s auditors, attorneys, advisors or lenders which are required to keep the information that is disclosed in confidence. Notwithstanding the foregoing, a Party may disclose any one or more of the commercial terms of a Transaction (other than the name of the other Party unless otherwise agreed to in writing by the Parties) to any industry price source for the purpose of aggregating and reporting such information in the form of a published energy price index. The Parties shall be entitled to all remedies available at law or in equity to enforce, or seek relief in connection with, this confidentiality obligation. Party A and Party B acknowledge and agree that the Master Agreement and any Confirmations executed in connection therewith are subject to the California Public Records Act (Government Code Section 6250 et seq.). Party B will notify Party A in writing promptly upon receipt of any request for information regarding the Master Agreement and/or any Confirmations executed in connection therewith pursuant to the California Public Records Act (Government Code Section 6250 et seq.).”

The following shall be added as Section 10.12:

Standard of Review.

(a) Absent the agreement of all Parties to the proposed change, the standard of review for changes to any rate, charge, classification, term or condition of this Agreement, whether proposed by a Party (to the extent that any waiver in subsection (b) below is unenforceable or ineffective as to such Party), a non-party or FERC acting *sua sponte*, shall be the “public interest” standard of review set forth in United Gas Pipe Line Co. v. Mobile Gas Service Corp., 350 U.S. 332 (1956) and Federal Power Commission v. Sierra Pacific Power Co., 350 U.S. 348 (1956) and clarified by NRG Power Marketing LLC v. Maine Pub. Util. Comm’n, 558 U.S. (2010) (commonly known as the “Mobile-Sierra” doctrine).

(b) In addition, and notwithstanding the foregoing subsection (a), to the fullest extent permitted by applicable law, each Party, for itself and its successors and assigns, hereby expressly and irrevocably waives any rights it can or may have, now or in the future, whether under §§ 205 and/or 206 of the Federal Power Act or otherwise, to seek to obtain from FERC by any means, directly or indirectly (through complaint, investigation or otherwise), and each hereby covenants and agrees not at any time to seek to so obtain, an order from FERC changing any section of this Agreement specifying the rate, charge, classification, or other term or condition agreed to by the Parties, it being the express intent of the Parties that, to the fullest extent permitted by applicable law, neither Party shall unilaterally seek to obtain from FERC any relief changing the rate, charge, classification, or other term or condition of this Agreement, notwithstanding any subsequent changes in applicable law or market conditions that may occur. In the event it were to be determined that applicable law precludes the Parties from waiving their rights to seek changes from FERC to their market-based power sales contracts (including entering into covenants not to do so) then this subsection (b) shall not apply, provided that, consistent with the foregoing subsection (a), neither Party shall seek any such changes except solely under the “public interest” application of the “just and reasonable” standard of review and otherwise as set forth in the foregoing section (a).

The following new Section shall be added as Section 10.13: “Party A hereby acknowledges and agrees that Party B is organized as a Joint Powers Authority in accordance with the Joint Powers Act of the State of California (Government Code Section 6500 et seq.) pursuant to a Joint Powers Agreement dated December 4, 2012, as amended July 25, 2013 (the “Joint Powers Agreement”) and is a public entity separate from its members. Party B shall solely be responsible for all its debts, obligations and liabilities accruing and arising out of this Agreement and Party A agrees that it shall have no rights and shall not make any claim, take any actions or assert any remedies against any of Party B’s members, any cities participating in Party B’s aggregation program, or any of Party B’s retail customers in connection with this Agreement or any of the Transactions.”

SCHEDULE P: PRODUCTS AND RELATED DEFINITIONS

The following definition is hereby added to Schedule P:

“CAISO Firm” means with respect to a Transaction, a Product under which the Seller shall sell and the Buyer shall purchase a quantity of energy equal to the hourly quantity without Ancillary Services (as defined in the California Independent System Operator (“CAISO”) Tariff) that is or will be scheduled as a schedule coordinator to schedule coordinator transaction pursuant to the applicable tariff and protocol provisions of the CAISO tariff as amended from time to time, for which the only excuse for failure to deliver or receive is “an Uncontrollable Force” as defined in the CAISO Tariff.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties have caused this Master Agreement to be duly executed as of the date first above written.

Calpine Energy Services, L.P.

[Sonoma Clean Power Authority]

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date : _____

Date: _____

DISCLAIMER: This Master Power Purchase and Sale Agreement was prepared by a committee of representatives of Edison Electric Institute (“EEI”) and National Energy Marketers Association (“NEM”) member companies to facilitate orderly trading in and development of wholesale power markets. Neither EEI nor NEM nor any member company nor any of their agents, representatives or attorneys shall be responsible for its use, or any damages resulting therefrom. By providing this Agreement EEI and NEM do not offer legal advice and all users are urged to consult their own legal counsel to ensure that their commercial objectives will be achieved and their legal interests are adequately protected.

CONFIRMATION FOR RESOURCE ADEQUACY CAPACITY PRODUCT FOR CAISO RESOURCES

This confirmation letter (“Confirmation”), confirms the mutual understanding and agreement (“Transaction”) between Calpine Energy Services, L.P. (“Seller”) and [Sonoma Clean Power Authority] (“Buyer”), each individually a “Party” and together the “Parties”, dated as of _____ in which Seller agrees to provide to Buyer the right to the Product (as defined herein). This Transaction and Confirmation are being provided pursuant to and in accordance with the Edison Electric Institute (“EEI”) Master Power Purchase and Sale Agreement between the Parties, effective as of _____ (collectively the “Master Agreement”), along with the Cover Sheet and any amendments and annexes, including the EEI Collateral Annex, thereto (together with the Master Agreement, collectively referred to as the “EEI Agreement”). The EEI Agreement and this Confirmation shall be collectively referred to herein as the “Agreement”. Capitalized terms not otherwise defined in this Confirmation have the meanings specified in the EEI Agreement or Tariff (as defined herein). To the extent that this Confirmation is inconsistent with any provision of the EEI Agreement, this Confirmation shall govern the rights and obligations of the Parties hereunder.

1. Definitions

- 1.01 “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.
- 1.02 “Availability Incentive Payments” has the meaning specified in the Tariff.
- 1.03 “Availability Standards” has the meaning specified in the Tariff.
- 1.04 “Buyer” has the meaning specified in the introductory paragraph hereof.
- 1.05 “CAISO” means the California Independent System Operator Corporation, or its successor entity.
- 1.06 “CAISO Control Area” has the meaning specified in the Tariff.
- 1.07 “CAISO Controlled Grid” has the meaning specified in the Tariff.
- 1.08 “Capacity Attributes” means any and all current or future defined characteristics (including the ability to generate at a given capacity level, provide ancillary services and ramp up or ramp down at a given rate), certificates, tags, credits, howsoever entitled (including any accounting construct), in each case which are counted toward any resource adequacy requirements attributed to or associated with the Unit(s) throughout the Delivery Period and are consistent with the operational limitations of such Unit(s).
- 1.09 “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. For purposes of the definition of “Replacement Price” in Section 1.51 of the Master Agreement, “Capacity Replacement Price” shall be deemed to be the “Replacement Price” for the Agreement.

- 1.10 “Confirmation” has the meaning specified in the introductory paragraph hereof.
- 1.11 “Confirmation Effective Date” means the date that both this Confirmation and that certain Confirmation Letter between the Parties dated as of even date herewith have been fully executed by the Parties.
- 1.12 “Contingent Firm RA Product” has the meaning specified in Section 3.3 hereof.
- 1.13 “Contract Price” means, for any Monthly Delivery Period, the product of the RA Capacity Flat Price and the Price Shape Factor for such period.
- 1.14 “Contract Quantity” means the total Unit Contract Quantity of all Units.
- 1.15 “CPUC” means the California Public Utilities Commission.
- 1.16 “CPUC Decisions” means CPUC Decisions 04-01-050, 04-10-035, 05-10-042, 06-06-064, 06-06-031, 07-06-029, 08-06-031, 09-06-028 10-06-036, 10-12-038, 11-06-022, 11-10-003, 12-06-025, and/or subsequent decisions related to resource adequacy, as may be amended from time to time by the CPUC.
- 1.17 “Delivery Period” has the meaning specified in Section 4.1 hereof.
- 1.18 “Designated RA Capacity” means, for each Unit, the amount of 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 by the CAISO pursuant to the Tariff, 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 CAISO Tariff, 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.
- 1.19 “Eligible Unit” means any of the geothermal power plants owned or controlled by Seller and located in Lake and Sonoma Counties, California.
- 1.20 “Firm RA Product” has the meaning specified in the Section 3.2 hereof.
- 1.21 “GADS” means the Generating Availability Data System, or its successor.
- 1.22 “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.

- 1.23 “LAR” means local area reliability, which is any program of localized resource adequacy requirements established for jurisdictional LSEs by the CPUC pursuant to the CPUC Decisions, the Tariff or by another LRA having jurisdiction over the LSE. LAR may also be known as local resource adequacy, local RAR, or local capacity requirement in other regulatory proceedings or legislative actions.
- 1.24 “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 such Unit within the CAISO Control Area that can be counted toward LAR and are consistent with the operational limitations of such Unit, but exclusive of any RAR Attributes. 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 local areas and such change will not result in a change in payments made pursuant to this transaction.
- 1.25 “LAR Showings” means the LAR compliance showings (or similar or successor showings) an LSE is required to make to the CPUC (and, to the extent authorized by the CPUC, to the CAISO) pursuant to the CPUC Decisions, or to an LRA having jurisdiction over the LSE.
- 1.26 “LRA” means Local Regulatory Authority, as defined in the Tariff.
- 1.27 “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).
- 1.28 “Master Agreement” has the meaning specified in the introductory paragraph hereof.
- 1.29 “Monthly Delivery Period” means each calendar month during the Delivery Period and shall correspond to each Showing Month.
- 1.30 “Monthly RA Capacity Payment” has the meaning specified in Section 4.4 hereof.
- 1.31 “NERC” means the North American Electric Reliability Council, or its successor.
- 1.32 “NERC/GADS Protocols” means the GADS protocols established by NERC, as may be updated from time to time.
- 1.33 “Non-Availability Charges” has the meaning specified in the Tariff.
- 1.34 “Non-Excusable Event” means Seller’s (a) failure to perform its obligations under this Confirmation due to Seller’s negligence, or the negligence of the owner, operator, or SC of a Unit, (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 failure to cause the owner, operator or SC of the Units to comply, with the terms of the Tariff with respect to the Units providing RAR Attributes and LAR Attributes, as applicable; provided that in each case such failure results or will result in the CPUC not allowing Buyer to count the applicable amount of Unit Contract Quantity towards its RAR.

- 1.35 “Outage” means any disconnection, separation, or reduction in the capacity of any Unit that relieves all or part of the offer obligations of such Unit consistent with the Tariff.
- 1.36 “Planned Outage” has the meaning in the Tariff, and includes a planned, scheduled, or any other Outage for the routine repair or maintenance of a Unit, or for the purposes of new construction work, and does not include any Outage designated as either forced or unplanned as defined by the CAISO or NERC/GADS Protocols.
- 1.37 “Price Shape Factor” means the Price Shape Factor specified in the Monthly Payment Price Shape Factor Table in Section 4.4 hereof.
- 1.38 “Product” has the meaning specified in Section 3 hereof.
- 1.39 “Prorated Percentage of Unit Factor” means the percentage of RA Capacity, as specified in Section 2 hereof, from a Unit that is dedicated to Buyer.
- 1.40 “RA Availability” means, for each Unit, expressed as a percentage, (a) the Designated RA Capacity for a Monthly Delivery Period divided by (b) the Unit Contract Quantity, as reduced according to Section 4.3 if applicable, provided that a Unit’s RA Availability shall not exceed 1.00.
- 1.41 “RA Availability Adjustment” has the meaning specified in Section 4.5 hereof.
- 1.42 “RA Capacity” means the qualifying and deliverable capacity of a 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.
- 1.43 “RA Capacity Flat Price” means [\$XX/kW-year].
- 1.44 “RAR” means the resource adequacy requirements established for LSEs by the CPUC pursuant to the CPUC Decisions in conjunction with the CAISO Tariff requirements, or by an LRA or other Governmental Body having jurisdiction.
- 1.45 “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, CAISO, LRA, or other Governmental Body having jurisdiction that can be counted toward RAR and are consistent with the operational limitations of such Unit, exclusive of any LAR Attributes.
- 1.46 “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.

- 1.47 “Replacement Capacity” has the meaning specified in Section 5.2 hereof.
- 1.48 “Replacement Unit” means a generating unit providing Replacement Capacity in accordance with Section 5.2 hereof.
- 1.49 “Resource Category” means the category attributed to the resource as described in the CPUC’s *2013 Filing Guide for System and Local Resource Adequacy (RA) Compliance Filings*, as such may be modified, amended, supplemented or updated from time to time.
- 1.50 “RMR Agreement” has the meaning specified in the Tariff.
- 1.51 “Scheduling Coordinator” or “SC” has the meaning defined in the Tariff.
- 1.52 “Seller” has the meaning specified in the introductory paragraph hereof.
- 1.53 “Showing Month” shall be the calendar month that is the subject of the RAR Showing, as set forth in the CPUC Decisions. For illustrative purposes only, pursuant to the CPUC Decisions in effect as of the Confirmation Effective Date, the monthly RAR Showing made in June is for the Showing Month of August.
- 1.54 “Standard Capacity Product” has the meaning specified in the Tariff.
- 1.55 “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.
- 1.56 “Tariff” means the CAISO operating agreement and tariff, including the rules, protocols, procedures, business practice manuals and standards attached thereto, as amended, supplemented or modified from time to time.
- 1.57 “Transaction” has the meaning specified in the introductory paragraph hereof.
- 1.58 “Unit” or “Units” shall mean the generation assets described in Section 2 hereof (including any Replacement Unit(s) or any other Eligible Unit designated in a written notice from Seller to Buyer), from which Product is provided by Seller to Buyer.
- 1.59 “Unit Contract Quantity” means the quantity of RA Capacity (in MWs) to be delivered by Seller to Buyer from each individual Unit as of the Confirmation Effective Date, equivalent to each such Unit’s RA Capacity multiplied by the Prorated Percentage of Unit Factor, as specified in (and may be adjusted pursuant to) Section 4.3 hereof.

2. Unit Information¹

Name:

¹ To be repeated for each Unit if more than one.

Location:

CAISO Resource ID:

Unit SCID:

Unit CAISO Net Qualifying Capacity (as of Confirmation Effective Date):

Prorated Percentage of Unit Factor:

Resource Type:

Resource Category (1, 2, 3 or 4):

Point of interconnection with the CAISO Controlled Grid (“substation or transmission line”):

Path 26 (North or South):

LCR Area (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 the Delivery Period, Seller shall provide to Buyer pursuant to the terms of this Confirmation: (a) RAR Attributes, LAR Attributes and Capacity Attributes, and (b) either a Firm RA Product or a Contingent Firm RA Product, as specified in either Section 3.2 or 3.3 below by checking the applicable provision ((a) and (b) shall be collectively referred to as the “Product”). Product does not confer to Buyer any right to dispatch or receive the electrical output 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, Seller is not required to make available any energy or ancillary services associated with any Unit to Buyer as part of this Transaction and 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 Product from a Unit in excess of that Unit’s Unit Contract Quantity and any RAR Attributes, LAR Attributes or Capacity Attributes not otherwise transferred, conveyed or sold to Buyer under this Confirmation to a third party.

3.1 [Reserved]

3.2 Firm RA Product

Seller shall provide Buyer with Product from the Unit(s) in the amount of the Contract Quantity. If the Unit(s) is/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, then Seller shall be liable for damages and/or to indemnify Buyer for penalties or fines pursuant to the terms of Section 5 if Seller is not able to replace the Designated RA Capacity.

3.3 Contingent Firm RA Product

Seller shall provide Buyer with Product from the Unit(s) in the amount of the Contract Quantity. If the Unit(s) is/are not available to provide the full amount of the Contract Quantity because of a Non-Excusable Event, Seller shall provide Buyer with Replacement Capacity pursuant to Section 5.2 hereof. If the Unit(s) provide less than the full amount of the Contract Quantity for any reason other than a Non-Excusable Event, Seller may but is not obligated to provide Buyer with Replacement Capacity.

4. Delivery and Payment

4.1 Delivery Period

The Delivery Period shall be from May 1, 2014 through December 31, 2023.

4.2 [Reserved]

4.3 Unit Contract Quantity:

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

Unit Contract Quantity (MWs)

Month	2014	2015	2016	2017	2018	2019	2020-2023
January							
February							
March							
April							
May							
June							

Month	2014	2015	2016	2017	2018	2019	2020-2023
July							
August							
September							
October							
November							
December							

If any portion of the Unit Contract Quantity 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, then to the extent Seller does not provide Replacement Capacity 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.

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 Contract Price for that Monthly Delivery Period, (b) the Designated RA Capacity for the Monthly Delivery Period, and (c) 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.

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

MONTHLY PAYMENT PRICE SHAPE FACTOR TABLE
 [Note: Calpine to adjust for “partial” 2014.]

Contract Month	Price Shape Factor (%)
Jan	7
Feb	5

Contract Month	Price Shape Factor (%)
Mar	4
Apr	4
May	4
Jun	7
Jul	13
Aug	15
Sep	13
Oct	10
Nov	10
Dec	8

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 for any Showing Month as follows:

(a) When the Unit’s RA Availability 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:

$$(0.80 - \text{RA Availability}) * 0.50 * \text{the applicable Contract Price} * \text{Unit Contract Quantity} * 1000.$$

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

$$[((0.80 - 0.50) * 0.50) + (0.50 - \text{RA Availability})] * \text{the applicable Contract Price} * \text{Unit Contract Quantity} * 1,000$$

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, (d) any revenues for black start or reactive power services and (e) Standard Capacity Product sales. 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, Reliability Capacity Services Tariff, Transitional Capacity Procurement Mechanism (TCPM), Interim Capacity Procurement Mechanism (ICPM), and Residual Unit Commitment capacity payments, but excluding payments described in clauses (a) through (d) above). In accordance with Section 4.4 of this Confirmation and Article Six of the Master Agreement, all such Buyer revenues described in this Section, but received by Seller, or a Unit's SC, owner, or operator shall be remitted to Buyer, and Seller shall pay such revenues to Buyer if the Unit's SC, owner, or operator fails to remit those revenues to Buyer. Either Party may offset any amounts owing to it for revenues, penalties, fines, costs, reimbursement or other payments pursuant to Article Six of the Master Agreement against any future amounts it may owe to the other Party under this Confirmation. In order to verify the accuracy of such revenues, Buyer shall have the right, at its sole expense and during normal working hours after reasonable prior notice, to hire an independent third party reasonably acceptable to Seller to audit any documents, records or data of Seller associated with the Designated RA Capacity. 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.

Subject to the Units being made available to the CAISO in accordance with Section 6 of this Confirmation, Seller agrees that the Units are subject to the terms of the Availability Standards. Furthermore, the Parties agree that any Availability Incentive Payments are for the benefit of the Seller and for Seller's account and that any Non-Availability Charges are the responsibility of the Seller and for Seller's account.

5. Seller's Failure to Deliver Contract Quantity

5.1 Notices and Filings

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 under this Confirmation. Seller shall cause the Unit's Scheduling Coordinator to submit written notification to Buyer, no later than fifteen (15) Business Days before the relevant deadline for any applicable RAR 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.

5.2 RA Capacity from Replacement Units

In the event that any amount of the Contract Quantity provided hereunder to Buyer from a Unit is unavailable for any Monthly Delivery Period due to a Non-Excusable Event, Seller shall, at no cost to Buyer, provide Buyer with capacity having equivalent RAR Attributes, LAR Attributes and Capacity Attributes compared to the Designated RA Capacity not provided by Seller (such replacement capacity being referred to as "Replacement 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. Seller shall identify Replacement Units meeting the above requirements no later than 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 5.2, any such Replacement Unit shall be automatically deemed to be a Unit for purposes of this Confirmation for that Monthly Delivery Period.

5.3 Purchase of Replacement Capacity

If, as a result of a Non-Excusable Event, the Designated RA Capacity provided hereunder is less than the Contract Quantity, and if Seller fails to provide to Buyer any portion of Designated RA Capacity from Replacement Units for any Showing Month pursuant to Section 5.2 hereof, Buyer may, but shall not be required to, replace any Designated RA Capacity not provided by Seller with Replacement Capacity. 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, as a result of a Non-Excusable Event, the Designated RA Capacity provided hereunder is less than the Contract Quantity, and if Seller is required to provide to Buyer 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, if Buyer purchases Replacement Capacity, for purposes of determining the damages due to Buyer under Section 4.1 of the Master Agreement, Seller shall pay to Buyer, in accordance with the terms of Section 4.1 of the Master Agreement relating to "Accelerated Payment of Damages," an amount equal to the product of (a) the positive difference, if any, between the Capacity Replacement Price less the Contract Price for that month *multiplied by* (b) the portion of Contract Quantity not provided by Seller. If Seller fails to pay those damages, then

Buyer may offset those damages owed it against any future amounts it may owe to Seller under this Confirmation pursuant to Article Six of the Master Agreement.

5.5 Indemnities for Failure to Deliver Designated RA Capacity

If Seller fails to provide Buyer any portion of the Contract Quantity from Replacement Units as required by Section 5.2 and Buyer is unable to purchase Replacement Capacity, then with respect to the portion of Contract Quantity that Buyer has not replaced, Seller agrees to indemnify Buyer for any monetary penalties or fines assessed against Buyer by the CPUC or the CAISO, or an LRA having jurisdiction, resulting from any of: (a) the Designated RA Capacity provided to Buyer hereunder being less than the Contract Quantity due to a Non-Excusable Event, and Seller's failure to replace the shortfall in Designated RA Capacity from Replacement Units in accordance with Section 5.2 hereof; or (b) Seller's failure to provide notice of the non-availability of any portion of the Designated RA Capacity as required under Section 5.1 hereof. 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 use 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. If Seller fails to pay those penalties or fines, or fails to reimburse Buyer for those penalties and fines, then Buyer may offset the cost of those penalties and fines against any future amounts it may owe to Seller under this Confirmation.

6. CAISO Offer Requirements

During the Delivery Period, except to the extent any Unit is in an Outage, Seller shall, or shall cause each Unit's Scheduling Coordinator to, schedule with, or make available to, the CAISO each Unit's 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, charges or fines imposed on Seller or such Unit's Scheduling Coordinator, owner, or operator for such noncompliance.

7. Planned Outages

Upon the Confirmation Effective Date, and to the extent that Seller intends to take one more Planned Outages for the Unit during the next twelve (12) month period and will not be providing Replacement Capacity or designating a different Eligible Unit as the Unit hereunder, no later than January 1, April 1, July 1 and October 1 of each calendar year until the end of the Delivery Period, Seller shall submit, or cause the Unit's Scheduling Coordinator to submit to Buyer the portion of the Unit's schedule of proposed Planned Outages for the Unit Contract Quantity for the following twelve (12) month period that overlaps the Delivery Period ("Outage Schedule"). 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 Outage for the Unit Contract Quantity. Seller or a Unit's Scheduling Coordinator shall notify Buyer within five (5) Business Days of any change to the Outage Schedule.

Planned Outages shall not be scheduled from each May 1 through September 30 during the Delivery Period, unless otherwise agreed by CAISO. In the event that Seller has a previously scheduled 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, as applicable. Buyer and Seller shall be deemed to have made commercially reasonable efforts if such actions require a Party to incur, in the aggregate, costs of up to \$10,000 per calendar year during the Delivery Period. 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 CAISO, 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, CAISO, FERC, or other Governmental Body having jurisdiction to administer RAR or LAR, so as to maintain the benefits of the bargain agreed by the Parties on the Confirmation Effective Date.

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 or LAR or analogous obligations in CAISO markets, other than pursuant to an RMR Agreement between the CAISO and either Seller or a Unit's owner or operator;
- (c) [Reserved];
- (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, 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 and, if applicable, General Order 167 as outlined by the CPUC in the Enforcement of Maintenance and Operation Standards for Electric Generating Facilities Adopted May 6, 2004, 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) Seller shall, and each Unit's SC, owner or operator is obligated to, comply with Applicable Laws, including the Tariff, relating to the Product;
- (h) If Seller is the owner of any Unit, the aggregation of all amounts of LAR Attributes and RAR Attributes that Seller has sold, assigned or transferred for any Unit does not exceed that Unit's RA Capacity;
- (i) With respect to the RA Capacity provided under this Confirmation, Seller shall, and each Unit's SC is obligated to, comply with Applicable Laws, including the Tariff, relating to RA Capacity, RAR and LAR;
- (j) 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 this Confirmation;
- (k) Seller has notified the SC of each Unit that Seller is obligated to cause each Unit's SC to provide to Buyer, at least fifteen (15) Business Days before the relevant deadline for each RAR or LAR Showing, the Designated RA Capacity of each Unit that is to be submitted in the Supply Plan associated with this Confirmation for the applicable period; and
- (l) Seller has notified each Unit's SC that Buyer is entitled to the revenues set forth in Section 4.6 of this Confirmation, and such SC is obligated to promptly deliver

those revenues to Buyer, along with appropriate documentation supporting the amount of those revenues.

9. Confidentiality

9.1 Definition of Confidential Information

The following constitutes “**Confidential Information**,” whether oral or written which is delivered by Seller to Buyer or by Buyer to Seller including: (a) proposals and negotiations until this Agreement is approved and executed by Buyer and Seller, and (b) information that either Seller or Buyer stamps or otherwise identifies as “confidential” or “proprietary” before disclosing it to the other. Confidential Information does not include (i) information that was publicly available at the time of the disclosure, other than as a result of a disclosure in breach of this Agreement; (ii) information that becomes publicly available through no fault of the recipient after the time of the delivery; (iii) information that was rightfully in the possession of the recipient (without confidential or proprietary restriction) at the time of delivery or that becomes available to the recipient from a source not subject to any restriction against disclosing such information to the recipient; and (iv) information that the recipient independently developed without a violation of this Agreement.

9.2 Duty to Maintain Confidentiality

Confidential Information will retain its character as Confidential Information but may be disclosed by the recipient if and to the extent such disclosure is required (a) to be made by any requirements of Law, (b) pursuant to an order of a court or (c) in order to enforce this Agreement. The originator or generator of Confidential Information may use such information for its own uses and purposes, including the public disclosure of such information at its own discretion.

9.3 Disclosure of Information

Notwithstanding Section 10.11 of the Master Agreement, the Parties agree that Buyer may disclose 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 use reasonable efforts to limit, to the extent possible, further disclosure of any such information to any such applicable Governmental Body, CAISO, LRA or SC.

10. Buyer’s Re-Sale of Product

Buyer may re-sell all or a portion of the Product hereunder.

11. [PROVISION FOR CREDIT TO BE DISCUSSED]

12. Declaration of an Early Termination Date and Calculation of Settlement Amounts

Notwithstanding anything to the contrary in this Confirmation, the Parties shall determine the Settlement Amount for this Transaction in accordance Section 5.2 of the Master Agreement using the defined terms contained in this Confirmation as applicable. Furthermore, with respect to this Transaction only, the following language is to be added at the end of Section 5.2:

“If Buyer is the Non-Defaulting Party and Buyer reasonably expects to incur penalties or fines from the CPUC, the CAISO, or any other LRA or Governmental Body having jurisdiction, because Buyer is not able to include the Contract Quantity in any applicable RAR Showing or LAR Showing due to Seller’s Event of Default, then Buyer may, in good faith, estimate the amount of those penalties or fines and include this estimate in its determination of the Settlement Amount, subject to accounting to Seller when those penalties or fines are finally ascertained. The rights and obligations with respect to determining and paying any Settlement Amount or Termination Payment, and any dispute resolution provisions with respect thereto, shall survive the termination of this Transaction and shall continue until after those penalties or fines are finally ascertained.”

BUYER

SELLER

[SONOMA CLEAN POWER AUTHORITY]

CALPINE ENERGY SERVICES, L.P.

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

***SONOMA CLEAN POWER -- BUSINESS OPERATIONS COMMITTEE
(BOC)***

Record of Proceedings for October 29, 2013

Attendance:

All committee members, Interim CEO Geof Syphers, SCPA Counsel Steve Shupe, consultants John Dalessi and Kirby Dusel, and 10 members of public were present.

BOC Actions:

-- Meeting called to order by Chair Briski at 9:04

-- By unanimous vote, following motion and second, approved form of energy supply agreement and data management services agreement, substantially in the forms presented for review (see "BOC Recommendation to SCP Board", below)

-- By unanimous vote, following motion and second, approved meeting minutes of October 25, 2013 with minor amendments

-- Following motion to adjourn and second, meeting adjourned at 11:18

BOC Recommendations to SCP Board:

-- The recommendations are being made with the following qualifications:

- The BOC had the majority, but not all, of the documents related to contracting energy supply and data management services before the meeting,
- Limited time was available to study related documents before the meeting and to discuss and ask questions during the meeting.
- No issues of substance were identified.
- The BOC questioned the technical experts and CEO to better understand their expertise and feels they have excellent qualifications. The recommendation to approve the agreements relies on this in large part.

-- Approve form of power supply agreement, including all exhibits and sub-agreements, in a form substantially similar to that presented to the Committee for review, with changes as deemed appropriate by staff following comments from Committee

-- Approve form of data management services agreement, including Exhibit A and Addendum for Data Management Service, in a form substantially similar to that presented to the Committee for review, with changes as deemed appropriate by staff following comments from Committee

Items for Future BOC Consideration:

- Consideration of issues relating to customer service functions, particularly an internally-staffed customer call center, including the timing of a transition from contracted service
- Interaction with Ratepayer Advisory Committee and rate proposals
- Discuss appropriate level of detail in meeting minutes

BOC Meeting Minutes for October 29 Committee Meeting

1. Introduction of Consultants and proposed timeline for agency actions

Steve Hall, Esq. (Troutman Sanders LLC) -- dedicated practice in power and energy fields; advised on form and substance of draft agency contracts

John Dalessi (Dalessi Management Consulting) -- has worked in power/electricity/energy field for over 20 years with last 10 in a consulting role, including community choice aggregation programs and power purchase contracts; assisted in formation of Marin Energy Authority with a primary focus on resource adequacy, power supply and financing.

Kirby Dusel (Paradigm Energy) -- Has worked for over 13 years in the electric utility industry, including administration of power purchase contracts; served as a lead technical advisor to the Marin Energy Authority.

CEO Syphers indicated that staff intended to take the form of the two contracts being considered to SCPA Board on November 7 along with recommendations from this Committee. Staff will be seeking Board authorization to execute a power purchase contract within 24 hours of receipt of "price bids". Executing a power purchase contract beyond a 24-hour "hold" period requires the payment of significant premiums.

2. Discussion of proposed form of Master Power Purchase Agreement

CEO Syphers explained that the form of power purchase contract distributed to the Committee for review consisted of five agreements, all of which were distributed as a "package". Mr. Dalessi explained that the "Confirmation" document contains most of the commercial terms of the purchase transaction while the Master Agreement contains "industry-standard" terms and conditions. Category of products to be purchased are energy, renewable energy resources and capacity; purchases will be for fixed prices and fixed volumes, with a built-in opportunity to adjust volumes. Any adjustments in volumes will be at "then current" market prices. Purpose of finalizing power purchase contract is to provide four prospective bidders with one set of specs.

In response to request from CM¹ Davitian to identify differences between the SCPA draft agreement and the Marin Energy Authority power purchase agreement, Mr. Dalessi explained

¹ CM refers to BOC Committee Member

that a primary difference was that the MEA agreement has a five-year term for energy purchases; SCPA is proposing a 3-year term. There is a significant premium associated with a term beyond three years. Another difference is that the SCPA draft agreement specifies declining volumes to be delivered over time, the intent being to allow for purchase transactions from local generation sources within the 3-year term, if feasible. A third difference between the SCPA draft agreement and the MEA purchase contract is that SCPA negotiated for a 2-month lag between actual purchase/delivery and payment, which is approximately how long it takes for customers to receive and pay their energy bills. The MEA contract has only a 1-month lag. This change results in SCPA being able to carry a significantly reduced loan.

CEO Syphers explained the financing portion of the power purchase agreement, which uses a "lock box" structure (similar to what was used in Marin County). This form of security is used in lieu of more traditional types of collateral (e.g. letters of credit, cash, etc.) and is particularly helpful for a start up entity (such as SCPA) that has no established credit or track record. Contract will specify minimum reserve amount to be kept in a secured account that will be available to the supplier as additional security.

In response to a question regarding phasing of program implementation, CEO Syphers explained that Phase 1 (currently planned for May, 2014) is anticipated to serve about 20,000 primarily commercial customers, with some residential customers. Phase 2 (currently planned for early 2015) and Phase 3 (currently planned for around the beginning of 2016) are each expected to serve an additional 60,000 customers. Selection of Phase 1 customers will use current PG&E "account types". Selection of Phase 2 customers will be based on (1) location within participating cities, and (2) usage and payment profiles. Community Choice Aggregation legislation allows for "phasing", as long as service is made available to residential customers.

There was a detailed discussion regarding the use of renewable energy credits ("RECS") as part of program flexibility to generate revenue, including the relationship between purchasing RECS (or a supplier providing RECS to SCPA in lieu of actual renewable energy) and how SCPA would then acquire the necessary power. It was explained that the RECs will appear as a separate line item in the contract pricing so it can be used in decision-making regarding trade-offs between how much is being spent on RECs versus non-renewable energy can be made. Mr. Dusel explained that "unbundled" RECs (the environmental attributes of the renewable energy separated from the actual energy generated) are less expensive than "bundled" RECs (those that pair the environmental attributes with the energy generated).

Public comment was received on the form of power purchase contract from the following individuals: Dick Dowd, Woody Hastings, Alan Strachan, and Margaret Spaulding. A suggestion was made that SCPA consider including SCPA Board and Committee members as part of the Phase 1 customer population. Clarification was requested regarding the difference between the "Confirmation" form and the "Confirmation Letter". In response to a question as to where e-mails with additional comments should be sent, CEO Syphers said that e-mails with additional comments should be directed to him. Staff confirmed that the current plan allows for a customer to purchase "100% green" energy in Phase 1. A suggestion was made that the Committee address opportunities for providing financing for energy efficiency programs (like

current SCEIP program). A comment was made that the current plan provides no incentive for those customers who are already "totally green" to become customers of SCPA.

3. Discussion of proposed form of contract for data management services.

Mr. Dusel described the services to be provided under this contract. The data management services provider will provide the data interface between SCPA, PG&E, CAISO and customers and will be responsible for customer relations. A discussion followed regarding the timing of SCPA staffing the call center and it was decided that this topic should be a future agenda item.

CM Mattinson questioned "excess labor rate" (\$150 per hour) for services beyond those described in contract, suggesting that it is more typical to see tiered labor rates, depending on the type of services required. Staff response was that the type of "excess labor" that is contemplated is "senior technical services" and that proposed rate was reasonable for those services.

CM Gogna inquired about mutual indemnification for a consulting contract. Staff and consultants explained that this was a point of discussion and negotiation with potential bidders. Agency counsel Shupe felt that mutual indemnification was fair, given that the data services vendor would be dependent upon information from SCPA. CM Brophy questioned whether policy limits of \$1 million was adequate for professional liability insurance. Staff responded that liability limits was a "heavily negotiated" issue and that \$1 million in coverage seemed adequate.

There was Committee discussion regarding how to proceed with recommendations to SCPA Board on the two forms of contract, given the limitations of time constraints and information that was not available for the Committee to review. CM Davitian suggested that staff identify the following for SCPA Board as being qualifying factors on the Committee's recommendations:

1. Identify information that the Committee did not have and didn't review
2. Time constraints limited Committee's ability to accomplish a more thorough review
3. Committee received a fairly thorough description of the process used in drafting the two agreements, an overview of the structure of the agreements, the key points of negotiations, an explanation of differences between these agreements and the corresponding MEA contracts, and adequate responses to questions that were raised, many of which were for "clarification".

There was Committee consensus that this was a fair description of qualifying factors to be forwarded to SCPA with the Committee's recommendations. There was also consensus to have a further discussion (at a future meeting) on providing a locally-staffed customer service capability, although this is not a "focus" initially.

Public comment was received on data management services contract from the following individuals: David Keller, Margaret Spaulding, Alan Strachan. A comment related to making internal staffing for the customer call center a priority; it was suggested that SCPA provide "supervisory support" to this service. CEO Syphers indicated that SCPA would monitor and oversee the call center function and that SCPA staff would be available for responding to questions that the vendor could not address. It was also suggested that future contracts be distributed with sufficient time to allow Committee to undertake "due diligence" in performing the review function, as that it should be a priority to develop a "contract review" process.

A question was posed as to whether the call center would include Spanish-speaking capability. Staff responded that Spanish-speaking capability was included in the contract, as well as the ability to provide assistance in other languages through an AT&T translation service that will be used by our contracted data services company.

It was suggested that the Committee give consideration at a future meeting to the topics of resource adequacy and capacity and how those factors impact rates.

CM Davitian pointed out that the Committee had 99% of the contract materials to review prior to the Committee meeting.

There was no public comment on non-agenda items.

Meeting adjourned by Chair Briski at 11:18.