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June 28, 2006

JOHN A. MCKINSEY  
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**BY HAND DELIVERY**

California Energy Commission  
Attn: RPS Certification  
1516 Ninth Street, MS-45  
Sacramento, CA 95814

TN 37205

<b>DOCKET</b> 79-AFC-4c
DATE JUN 28 2006
RECD! JUN 28 2006

**Re: Bottle Rock Power Corporation Application for Certification, CEC-RPS-1**

To Whom It May Concern:

On behalf of Bottle Rock Power Corporation ("BRPC"), please find enclosed herein the original and 15 copies of BRPC's completed and signed Form CEC-RPS-1 and the requisite attachments thereto. Please endorse two (2) extra copies for our records. Additionally, please ensure all future correspondence related to this matter is sent to:

John A. McKinsey, Esq.  
Stoel Rives LLP  
770 L Street, Suite 800  
Sacramento, CA 95834

Should you have any questions, please contact me at (916) 447-0700.

Sincerely,

A handwritten signature in black ink that reads "John A. McKinsey". The signature is written in a cursive, flowing style.

John A. McKinsey

JAM:kjh

Enclosures

# **Bottle Rock Power Corporation**

1275 4th Street, No. 105  
Santa Rosa, CA 95404

Phone: 707.541.0976  
Fax: 707.546.9139

27 June 2006

California Energy Commission  
Attn: RPS Certification  
1516 Ninth Street, MS-45  
Sacramento, CA 95814

**RE: *Bottle Rock Power Corporation Application for Certification CEC-RPS-1***

To Whom It May Concern:

The Bottle Rock Power Corporation (BRPC) herein submits its Application for Certification of eligibility to participate in the California Renewables Portfolio Standard Program (RPS). The completed and signed Form CEC-RPS-1, along with the attendant Attachments, is enclosed for your action. The documents enclosed are as follows:

- Form CEC-RPS-1: Completed and Signed
- Attachment A: Additional Information to Completed Form CEC-RPS-1
- Attachment B: Ancillary Discussion for Completed Form CEC-RPS-1
- Attachment C: Facility Description with Coordinates

Renewable energy is an important component of an affordable and reliable electricity supply in California. The Bottle Rock Power Plant (BRPP), located at The Geysers in Lake County, is a proven renewable energy resource that is being refurbished to sell for the first time in its history on a commercial basis to another party approximately 25 megawatts of electric power when it is re-fired.

The BRPC desires eligibility in the RPS Program as well as the Supplemental Energy Payments Program (SEPs). However, BRPC's Bottle Rock geothermal facility does not conveniently align with the geothermal categories as outlined in the CEC's *Renewables Portfolio Standard Eligibility Guidebook, November 2005, CEC-300-2005-028-SD (RPSEG)*.

The BRPC recognizes that the BRPP is a geothermal facility with very unique circumstances and is working with CEC Staff to identify the appropriate manner and means by which to resolve the conundrum of certifying the BRPP for eligibility in the RPS and SEPs Programs per the *RPSEG* and, at the same time,

**Bottle Rock  
Power Corporation**

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remain consistent with the legislative intent of the applicable RPS statutes. Attachment B presents an approach that can provide a basis from which to proceed to accomplish certification of BRPP for eligibility in the RPS and SEPs Programs.

The BRPC respectfully requests that the CEC Staff and the Renewables Committee consider discretionary adjustment to the appropriate geothermal category and yet remain consistent with the intent of the RPS Program. Such action would recognize the BRPP's unique circumstances and thereby allow the BRPC's eligibility for the RPS and SEPs Programs.

The BRPC looks forward to continued cooperation with the CEC Staff as we address this subject.

If you have any comments or questions regarding this matter, please call me at 707.541.0976.

Respectfully,



Ronald E. Suess, JD  
President  
Bottle Rock Power Corporation

Enclosures



Please fill out all applicable portions of application (10 pages), sign, and submit completed form to:

California Energy Commission, Attn: RPS Certification  
1516 Ninth Street, MS-45, Sacramento, CA 95814

Form may also be submitted electronically via e-mail to:  
skorosec@energy.state.ca.us, subject line "RPS Certification"  
(If submitted electronically, an original signed copy must still be submitted to the address above)

*All data on this form is subject to public disclosure*

**Section I: Type of Certification Requested**

Choose  
One

- Eligible for California RPS  
 Eligible for California RPS plus Supplemental Energy Payments (SEPs)

Choose  
One

- Pre-certification  Certification  Amended certification  Renewal

If this is an amendment or renewal, date of original certification: \_\_\_\_\_

*Please note: To register as Renewable Only (not eligible for RPS or SEP), please use form CEC-1038-E1, available on-line at: [www.energy.ca.gov/renewables/documents/index.html](http://www.energy.ca.gov/renewables/documents/index.html)*

**Section II: Applicant Contact Information**

Name: Ronald E. Suess Title: President

Company: Bottle Rock Power Corporation

Address: 1275 4<sup>th</sup> Street, No. 105  
Santa Rosa CA 95404  
City State Zip

Telephone: (707) 541.0976 Fax: (707) 546.9139 E-Mail: resuess@cds1.net

Person Completing Form (if different from Applicant Contact): Same

**Section III: Facility Information**

Name of Facility: Bottle Rock Power Plant

Physical Address: 7557 High Valley Road  
Cobb CA 95426  
City State Zip

*If no physical address exists, attach legal description of facility location*

- Located within California  Located outside of California

Site location coordinates in Latitude/Longitude (if known) See "Attachment C"

Telephone: (707) 928.4578 Fax: (707) 928.4581 E-Mail: Not Applicable

**Section III: Facility Information (continued)**

Owner Name: Bottle Rock Power Corporation

Owner Address: 1275 4th Street, No. 105  
Santa Rosa CA 95404  
City State Zip

Owner Telephone: (707) 541-0976 Fax: (707) 546-9139 E-Mail: resuess@cds1.net

Please specify any additional names this facility has been known by, including names the facility has used in the past, if known: Dept. of Water Resources Bottle Rock Power Plant

*For example, the facility may have changed names or may be part of a group of facilities collectively known by one name.*

ID#'s (if known): CEC-REP NA CEC-RPS NA CEC-Other 79-AFC-4C  
QFID NA EIA NA CA ISO NA  
SO NA Other (please explain) \_\_\_\_\_

*CEC-REP refers to the CEC ID# under the Renewable Energy Program.  
CEC-RPS refers to the CEC ID# issued under the Renewables Portfolio Standard, if this application is an amendment or renewal.  
CEC-Other refers to any other CEC ID# issued. ✓  
QFID refers to a unique identifier assigned to a Qualifying Facility by the utility contracting for power from the facility.  
EIA refers to the number assigned by the Energy Information Administration that is used to report monthly generation data to the EIA.  
CAISO refers to the number assigned to the facility by the California Independent System Operator.  
SO refers to number assigned to the facility by another system operator, not the CA ISO.*

Choose One  
 Facility commenced commercial operations prior to January 1, 2002  
(specify date): See " Attachments A and B  
 New facility, commenced/will commence commercial operation after January 1, 2002  
(specify date/expected date): 01 September 2006  
 Repowered facility, re-entered/will re-enter commercial operation after January 1, 2002  
(specify date/expected date): \_\_\_\_\_

Location of WECC interconnection: Collection Bus PG&E No. 17 to Fulton 230kV Line

*The WECC interconnection is the substation where radial lines from the facility interconnect/will interconnect to the WECC controlled transmission system.*

Nameplate capacity of facility (in megawatts): 55 megawatts

**Section IV: Eligibility for Supplemental Energy Payments**

1. Is the output from this facility being sold under a long-term contract entered into prior to January 1, 2002 with a California investor-owned utility that includes fixed energy or capacity payments?  
 Yes  No

**Section IV: Eligibility for Supplemental Energy Payments (continued)**

If yes: A. Date contract executed: \_\_\_\_\_

B. Utility contracted with: \_\_\_\_\_

C. Does the output from this facility meet the requirements in Public Utilities Code Section 399.6(c)(1)(C) as shown below?  Yes  No **See "Attachment A"**

*If yes, please attach a detailed explanation. If no, the facility is not eligible for SEPs.*

**Public Utilities Code Section 399.6(c)(1)(C) – to be eligible for SEPs, all of the following must occur:**

- 1) The facility's power purchase contract provides that all energy delivered and sold under the contract is paid at a price that does not exceed commission-approved short-run avoided cost of energy.
- 2) Either of the following:
  - a. The power purchase contract is amended to provide that the kilowatthours used to determine the capacity payment in any time-of-delivery period in any month under the contract shall be equal to the actual kilowatthour production, but no greater than the five-year average of the kilowatthours delivered for the corresponding time-of-delivery period and month, in the years 1994 to 1998, inclusive.
  - b. If a facility's installed capacity as of December 31, 1998, is less than 75 percent of the nameplate capacity as stated in the power purchase contract, the power purchase contract is amended to provide that the kilowatthours used to determine the capacity payment in any time-of-delivery period in any month under the contract shall be equal to the actual kilowatthour production, but no greater than the product of the five-year average of the kilowatthours delivered for the corresponding time-of-delivery period and month, in the years 1994 to 1998, inclusive, and the ratio of installed capacity as of December 31 of the previous year, but not to exceed contract nameplate capacity, to the installed capacity as of December 31, 1998.
- 3) The Supplemental Energy Payments are payable only with respect to the kilowatthours delivered in a particular month that exceeds the corresponding five-year average calculated pursuant to clause 2

2. Is the facility owned by an investor-owned utility or local publicly-owned electric utility?  Yes  No  
*Utility-owned facilities are not eligible to receive SEPs.*

3. Is the entire output of the facility intended to be used exclusively on-site (i.e. self generation)?  Yes  No  
*On-site generation is not eligible to receive SEPs.*

4. Is the entire output of the facility excluded from paying an applicable competitive transition charge?  Yes  No  
*If yes, facility is not eligible to receive SEPs. **See "Attachment A"***

**Section V: Facility Fuel Type**

5. Please indicate energy source used by the facility. For hybrid systems, indicate all energy sources used.

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Biodiesel<br><i>(complete Section VI, questions 6-10)</i>              | <input type="checkbox"/> Landfill Gas<br><i>(skip to Section VII)</i>                                       | <input type="checkbox"/> Ocean Wave<br><i>(skip to Section VII)</i>                     |
| <input type="checkbox"/> Biomass<br><i>(complete Section VI, questions 7-10)</i>                | <input type="checkbox"/> Municipal Solid Waste, combustion<br><i>(complete Section VI, question 20)</i>     | <input type="checkbox"/> Ocean Thermal<br><i>(skip to Section VII)</i>                  |
| <input type="checkbox"/> Digester Gas<br><i>(skip to Section VII)</i>                           | <input type="checkbox"/> Municipal Solid Waste, conversion<br><i>(complete Section VI, questions 20-22)</i> | <input type="checkbox"/> Wind<br><i>(skip to Section VII)</i>                           |
| <input type="checkbox"/> Fuel Cell<br><i>(skip to Section VII)</i>                              | <input type="checkbox"/> Photovoltaic<br><i>(skip to Section VII)</i>                                       |   |
| <input checked="" type="checkbox"/> Geothermal<br><i>(complete Section VI, questions 11-14)</i> | <input type="checkbox"/> Solar Thermal Electric<br><i>(skip to Section VII)</i>                             |   |
| <input type="checkbox"/> Hydropower<br><i>(complete Section VI, questions 15-19)</i>            | <input type="checkbox"/> Tidal Current<br><i>(skip to Section VII)</i>                                      | <input type="checkbox"/> Hybrid System<br><i>(complete Section VI, questions 23-24)</i> |

**Section V: Facility Fuel Type (continued)**

Does this facility use any fossil fuel?  Yes  No

If yes, please specify average annual percentage on a total heat input basis for the calendar year immediately prior to the date of application: \_\_\_\_\_

*Facilities that use fossil fuel must complete Section VI, question 24 dealing with hybrid systems.*

**Section VI: Additional Required Information for Specific Fuel Types**

*Facilities using digester gas, fuel cell, landfill gas, photovoltaic, solar thermal, tidal current, ocean wave, ocean thermal, and wind technologies have no special fuel requirements. Applicants for facilities using these fuels or resources exclusively may skip to Section VII.*

**For Biodiesel Applicants**

6. Source of biodiesel fuel

- Choose One
- Biodiesel derived from biomass fuel – answer questions 7-10
  - Biodiesel derived from MSW conversion process – answer questions 20-22

**For Biomass Applicants**

7. Did the facility commence or is it expected to commence commercial operations prior to January 1, 2002?

- Yes, please note that facility is not eligible for SEPs  No

8. Indicate current/anticipated source of biomass fuel supply (check all that apply):

- Agricultural crops and agricultural wastes and residues.
- Solid waste materials - Includes waste pallets, crates, dunnage, manufacturing, and construction wood wastes, landscape or right-of-way tree trimmings, mill residues resulting directly from milling of lumber, and rangeland maintenance residues.
- Wood and wood wastes that meet all of the following requirements:
  - 1) Harvested pursuant to an approved timber harvest plan prepared in accordance with the Z'berg-Nejedly Forest Practice Act of 1973 (Ch. 8 (commencing with Sec. 4511), Pt. 2, Div. 4, Public Resources Code).
  - 2) Harvested for the purpose of forest fire fuel reduction or forest stand improvement.
  - 3) Do not transport or cause the transportation of species known to harbor insect or disease pests outside zones of infestation or current quarantine zones, as identified by the Department of Food and Agriculture or the Department of Forestry and Fire Protection, unless approved by those agencies.

9. To be eligible for the RPS or RPS and SEPs, an applicant for a "new" or "repowered" biomass facility must agree to use only eligible biomass fuel, and to annually provide written attestations from its fuel supplier(s) documenting that the supplier(s) have delivered eligible biomass fuel to the facility. Applicant must also agree to provide documentation, or make documentation available upon request, to the Energy Commission verifying on-going compliance with these requirements.

- Applicant acknowledges and agrees to comply with the above requirements as more fully described in the *Renewable Portfolio Standard Eligibility Guidebook*.

10. For biomass facility operators receiving SEPs only: You must submit an annual report to the Energy Commission describing fuel use as follows: tons of biomass by type of biomass, the air district from which the biomass originated if the fuel may have been open-field burned had it not been used for electricity production, and an attestation from the fuel supplier(s) that the biomass fuel continues to meet the RPS eligibility standards. The report is due to the Energy Commission on February 15th of each year to report on the biomass supply consumed in the previous calendar year.

- Applicant acknowledges and agrees to comply with the above requirements as more fully described in the *Renewable Portfolio Standard Eligibility Guidebook*.

**For Geothermal Applicants**

11. Date facility commenced/will commence commercial operations

Choose One	<input type="checkbox"/> Prior to September 26, 1996 <i>Generation may be eligible for the RPS but only to establish or adjust a retail seller's baseline</i>
	<input type="checkbox"/> Between September 26, 1996 and January 1, 2002 <i>Generation may be eligible for RPS but not for SEPs</i>
	<input checked="" type="checkbox"/> On or after January 1, 2002 <i>Generation may be eligible for both RPS and SEPs</i> See "Attachment A"

12. Are you applying for certification for incremental geothermal?

- Yes (complete question 13)       No (skip to Section VII)

*Incremental generation from geothermal facilities is eligible for the RPS but is limited to generation resulting from "eligible capital expenditures" as defined in the Renewables Portfolio Standard Eligibility Guidebook. Incremental geothermal generation may be eligible for SEPs to the extent that the generation meets criteria for a "new" or "repowered" facility.*

13. Eligible capital expenditures

Choose all that apply	<input type="checkbox"/> The capital expenditure results/will result in replaced generating equipment or increased steam converted to generation.
	<input type="checkbox"/> The capital expenditure does not/will not cause an increase in the decline rate of the reservoir.
	<input type="checkbox"/> The capital project was completed after September 26, 1996. <i>Only capital expenditures that meet all of the above criteria are considered "eligible."</i>

14. Please attach the documentation specified in the section entitled "Supplemental Instructions for Incremental Geothermal Facilities" in the *Renewables Portfolio Standard Eligibility Guidebook*

**For Hydropower Applicants**

15. Facility size

- Applicant certifies that total facility size, including any incremental additions to original facility, does not/will not exceed 30 megawatts

*Only hydropower facilities 30 megawatts or less in size qualify for the RPS or RPS and SEPs*

16. Date facility commenced/will commence commercial operations

Choose One	<input type="checkbox"/> Facility commenced commercial operations prior to September 12, 2002 (answer question 17)
	<input type="checkbox"/> Facility commenced/will commence commercial operations on or after September 12, 2002 (answer question 18) <i>Generation may be eligible for RPS or RPS and SEPs</i>
	<input type="checkbox"/> Facility is "repowered" and re-entered/will re-enter commercial operation after September 12, 2002 (answer questions 17-18) <i>Generation may be eligible for RPS or RPS and SEPs</i>

17. Was facility owned by, and/or its generation procured by, an IOU as of September 12, 2002?       Yes       No

*If yes, generation may be eligible only for purposes of establishing an IOU's RPS baseline. Facility's generation may not be used for adjusting an IOU's baseline or meeting an IOU's annual procurement target.*



**For Hydropower Applicants (continued)**

18. "New" or "Repowered" Hydropower Facilities: please check all that apply:

Facility located within California	Facility located outside of California
<p><input type="checkbox"/> The applicant has a permit or license from the State Water Resources Control Board (SWRCB) to appropriate water, which was issued before September 12, 2002.</p> <p><input type="checkbox"/> The applicant can operate its proposed facility under its existing SWRCB permit or license.</p> <ul style="list-style-type: none"> <li>• <i>The facility does not require a new or revised permit from the SWRCB for a new appropriation of water.</i></li> <li>• <i>The facility does not require a new permit or license from the SWRCB for a new diversion of water</i></li> <li>• <i>The facility will not require an increase in the volume or rate of water diverted that would require a new permit or license from the SWRCB.</i></li> </ul> <p><input type="checkbox"/> The facility does not/will not require an increase in the volume or rate of water diverted under an existing right, even if such a change would not require a water right permit or license from the SWRCB.</p>	<p><input type="checkbox"/> The applicant has a permit or license from the applicable governing body to appropriate water, which was issued before September 12, 2002.</p> <p><input type="checkbox"/> The applicant can operate its proposed project under its existing government-issued permit or license</p> <ul style="list-style-type: none"> <li>• <i>The facility does not require a new permit or license from any government body for a new appropriation of water</i></li> <li>• <i>The facility does not require a new permit or license from any government body for a new diversion of water.</i></li> </ul> <p><input type="checkbox"/> The facility does not/will not require an increase in the volume or rate of water diverted under an existing right, even if such a change would not require a new permit or license from any government body.</p>

19. Please attach the documentation specified in the section entitled "Supplemental Instructions for Small Hydropower Facilities" in the *Renewables Portfolio Standard Eligibility Guidebook*

**For Municipal Solid Waste Applicants**

20. Type of MSW Facility

<p>Choose One</p>	<p><input type="checkbox"/> MSW combustion facility that meets the following criteria (<i>skip to Section VII</i>)  <i>Generation is eligible for the RPS only if the facility is located in Stanislaus County and commenced commercial operations prior to September 26, 1996. Applicant must attach documentation to this application demonstrating that the facility meets both of these requirements. Generation from MSW combustion facilities is only eligible to initially establish or adjust a retail seller's RPS baseline.</i></p> <p><input type="checkbox"/> MSW conversion facility (<i>answer questions 20-21</i>)  <i>Facility uses a non-combustion thermal process to convert MSW to a clean-burning fuel that is then used to generate electricity.</i></p>
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*For Municipal Solid Waste Applicants (continued)*

21. MSW conversion facilities must meet **all** of the following criteria to be eligible for the RPS or RPS and SEPs. Please check all that apply:

- The technology does not/will not use air or oxygen in the conversion process, except ambient air to maintain temperature control.
- The technology does not/will not produce any discharges of air contaminants or emissions, including greenhouse gases as defined in Section 42801.1 of the Health and Safety Code.
- The technology does not/will not produce any discharges to surface or groundwaters of the state.
- The technology does not/will not produce any hazardous wastes.
- To the maximum extent feasible, the technology removes/will remove all recyclable materials and marketable green waste compostable materials from the solid waste stream prior to the conversion process and the owner or operator of the facility certifies that those materials will be recycled or composted.
- The facility at which the technology is used/will be used is in compliance with all applicable laws, regulations, and ordinances.
- The technology meets/will meet any other conditions established by the State Energy Resources Conservation and Development Commission.
- The facility certifies that any local agency sending solid waste to the facility diverted/will divert at least 30 percent of all solid waste it collects through solid waste reduction, recycling and composting.
- The facility certifies that any local agency sending solid waste to the facility is/will be in compliance with Division 30 (Commencing with Section 4000), has reduced, recycled, or composted solid waste to the maximum extent feasible. (The California Integrated Waste Management Board must find that the facility has diverted at least 30 percent of all solid waste through source reduction, recycling, and composting.) Facilities must satisfy these criteria to be eligible for SEPs.

22. Please attach the documentation specified in the section entitled "Supplemental Instructions for Municipal Solid Waste Conversion Facilities" in the Renewables Portfolio Standard Eligibility Guidebook

*For Hybrid System Applicants*

23. Type of Hybrid System:

Choose One	<input type="checkbox"/> Pumped Storage Hydropower <i>(identify energy source used for pumping)</i> _____ Must use a renewable energy source to be eligible for RPS or RPS and SEPs; <b>only the amount of energy dispatched to the transmission system is eligible</b>
	<input type="checkbox"/> Other <i>(describe fuels used – attach additional sheets if necessary)</i> _____ _____ _____

**For Hybrid System Applicants (continued)**

24. For Hybrid Systems using fossil fuel (please select A or B)

A. Facility commenced commercial operations or was repowered prior to January 1, 2002:

If you checked "A", choose one

Applicant attests that the percentage of fossil fuel used in the facility does not/will not exceed 25 percent of the total annual energy input of the facility.

*Facilities using fossil fuel that were operational or repowered prior to 1-1-02 may use up to 25% fossil fuel and still have the total generation from their facility considered renewable and eligible for the RPS.*

Percentage of fossil fuel used in the facility exceeds/will exceed 25 percent of the total annual energy input of the facility.

*Only the renewable portion of electricity production may qualify for the RPS, and only once an appropriate tracking system is developed to monitor such production*

Facility was developed and awarded a power purchase contract as a result of an IOU Interim RPS procurement solicitation approved by the California Public Utilities Commission, and applicant attests that the facility uses no more than 25% fossil fuel annually on a total energy input basis.

*Facilities developed and awarded power purchase contracts as a result of an IOU Interim RPS procurement solicitation and approved by the CPUC may use up to 25% fossil fuel and count 100% of the electricity generated as RPS eligible.*

B. Facility commenced/will commence commercial operation or was/is repowered on or AFTER January 1, 2002:

If you checked "B", choose one

Facility is certified as a Qualifying Small Power Production Facility (QF) and applicant attests that the facility satisfies the fossil fuel use limitations specified in PURPA.

*Facilities certified as QFs under the federal Public Utilities Regulatory Policies Act may use up to 25% fossil fuel and count 100% of the electricity generated as RPS eligible provided the facility otherwise satisfies the applicable California RPS standards.*

Facility is NOT certified as a Qualifying Small Power Production Facility but uses some percentage of fossil fuel.

*Only the renewable portion of electricity production may qualify for the RPS, and only once an appropriate tracking system is developed to monitor such production*

Facility was developed and awarded a power purchase contract as a result of an IOU Interim RPS procurement solicitation approved by the California Public Utilities Commission, and applicant attests that the facility uses no more than 25% fossil fuel annually on a total energy input basis.

*Facilities developed and awarded power purchase contracts as a result of an IOU Interim RPS procurement solicitation and approved by the CPUC may use up to 25% fossil fuel and count 100% of the electricity generated as RPS eligible.*

**Section VII: Repowered Facility Information**

25. Generally describe the prime generating equipment replaced/to be replaced at the facility: \_\_\_\_\_

See " Attachment A "

*Please attach a detailed description in the documentation required under question 27. The applicant must document that the facility's prime generating equipment is new. For a definition of each renewable resource's prime generating equipment, please see the Renewables Portfolio Standard Eligibility Guidebook.*

26. Please indicate the method used to demonstrate compliance with the 80 percent threshold:

Tax Records Methodology

Replacement Value Methodology

*Applicant must document the value of the capital investments made to the facility and the total value of the repowered facility, and the value of the capital investments must equal at least 80 percent of the total value of the repowered facility.*

27. Please attach the documentation specified in the section entitled "Supplemental Instructions for Repowered Facilities" in the *Renewables Portfolio Standard Eligibility Guidebook*

## Section VIII: Out-of-State Facility Information

28. For RPS eligibility only, applicants for out-of-state facilities must submit documentation showing that the facility meets all of the following criteria (check all that apply):

- Facility has guaranteed contracts to sell its generation to an IOU or the California Independent System Operator (CA ISO).
- Facility can demonstrate delivery of its generation to the in-state market hub/zone or in-state substation/node located within the CA ISO control area of the WECC transmission system designated by the IOU
- Applicant agrees to participate in the Energy Commission's RPS tracking and verification system once the system is established

29. For RPS **and** SEP eligibility, please select A or B:

A. Facility's first point of interconnection to the WECC transmission system is/will be located within California.

*If you checked "A", check all that apply*

- Facility can demonstrate delivery of its generation to the in-state market hub/zone or in-state substation/node located within the CA ISO control area of the WECC transmission system designated by the IOU
- Applicant agrees to participate in the Energy Commission's RPS tracking and verification system

B. Facility's first point of interconnection to the WECC transmission system is/will be located outside of California.

*If you checked "B", check all that apply*

- Facility is/will be located within the United States.  
*Facility may not cause or contribute to any violation of a California environmental quality standard or requirement.*
- Facility is/will be located outside of the United States.  
*Facility must be developed and operated in a manner that is as protective of the environment as a similar facility located within California.*
- Facility is/will be located so that it is/will be connected to the WECC transmission system.
- Facility is/will be developed with guaranteed contracts to sell its power to end use customers of California IOUs during the period in which it will receive SEPs.
- Facility can demonstrate delivery of its generation to the in-state market hub/zone or in-state substation/node located within the CA ISO control area of the WECC transmission system designated by the IOU
- Applicant agrees to participate in the Energy Commission's RPS tracking and verification system.

30. To be eligible for RPS and SEPs, an applicant for an out-of-state facility must agree to comply with the "Delivery Requirements" specified in the Eligibility of Out-of-State Facilities section of the *Renewables Portfolio Standard Eligibility Guidebook*.

Applicant acknowledges and agrees to comply with the above requirements as more fully described in the *Renewables Portfolio Standard Eligibility Guidebook*.

31. Please attach the documentation specified in the section entitled "Supplemental Instructions for Out-of-State Facilities" in the *Renewables Portfolio Standard Eligibility Guidebook*

**Section IX: General Information**

The Energy Commission reserves the right to request additional information to confirm or clarify information reported in this application.

The Energy Commission's Accounting Office or its authorized agents, in conjunction with Energy Commission technical staff, may audit any applicant to verify the accuracy of any information included as part of an application for RPS certification, pursuant to the *Overall Program Guidebook for the Renewable Energy Program*. As part of an audit, an awardee may be required to provide the Accounting Office or its authorized agents with any and all information and records necessary to verify the accuracy of any information included in the awardee's applications, invoices, or reports. An awardee may also be required to open its business records for on-site inspection and audit by the Accounting Office or its authorized agents for purposes of verifying the accuracy of any information included in the awardee's applications, invoices, and reports.

Certified and pre-certified facilities must notify the Energy Commission in a timely manner of any material changes in information previously submitted to the Energy Commission. A facility failing to do so risks losing its certification status. Any changes affecting the facility's certification status should be reported on an amended CEC-RPS-1 form. If there are any changes to the status of a facility's certification, the new information will be posted on the Energy Commission's website and any affected utility contracting with that facility will be promptly notified.

**Section X: Signature**

I am an authorized officer of the above-noted facility owner and hereby submit this application on behalf of said facility owner for certification as a renewable facility eligible for California's RPS or certification as eligible for California's RPS and SEPs. I have read the above information as well as the *Renewables Portfolio Standard Eligibility Guidebook*, the *Overall Program Guidebook for the Renewable Energy Program*, and the *New Renewable Facilities Program Guidebook* and understand the provisions and my responsibilities. I acknowledge that the receipt of any certification approval from the California Energy Commission is conditioned on the acceptance and satisfaction of all program requirements as set forth in the *Renewables Portfolio Standard Eligibility Guidebook* and the *Overall Program Guidebook for the Renewable Energy Program*. I declare under penalty of perjury that the information provided in this form and attachments is true and correct to the best of my knowledge.

Applicant Name: Ronald E. Suess

Applicant Title: President

Signature: Ronald E. Suess

Date signed: 30 January 2006

**REMINDER:  
HAVE YOU INCLUDED  
ALL NECESSARY ATTACHMENTS?**

**Supplemental Information is required for:**

*Biodiesel, New or Repowered  
Incremental Geothermal  
Municipal Solid Waste Conversion  
Repowered Facilities*

*Biomass, New or Repowered  
Hydropower, new or repowered  
Hybrids  
Out-of-State Facilities*

**ATTACHMENT A**

## CEC-RPS-1 Application for Certification

### Additional Information to Completed Form

#### Section III: Facility Information

- *Additional Names*

This geothermal facility was previously known as "The Department of Water Resources' Bottle Rock Power Plant".

- *Identification Number: CEC-Other*

The CEC assigned the docket number **79-AFC-4C** to the California Department of Water Resources (DWR) when DWR sought CEC approval to construct the Bottle Rock Power Plant. DWR intended that this geothermal steam powered electricity generating facility, located at The Geysers, would provide electrical power for DWR's California Water Project. The CEC approved the Final Decision on the Authority for Construction in November 1980.

- *Choose One*

Even though DWR operated Bottle Rock Power Plant for intra-department electric power use from 1985 through 1990 (prior to 01 January 2002), such operation was not "commercial" in that the electricity was not sold by DWR to some other entity as an act of commerce.

Hence, the Bottle Rock geothermal facility, no longer owned by DWR in any manner but now owned by the Bottle Rock Power Corporation (BRPC), will commence commercial operation for the first in its business history by selling electricity to an end user on or about 16 September 2006 as a "new" commercial operation.

#### Section IV: Eligibility for Supplemental Energy Payments

- *Question 1*

Output from the Bottle Rock Power Plant is currently not being sold under a long-term contract entered into prior to 01 January 2002 with a California investor-owned utility (IOU) that includes fixed energy or capacity payments.

The Bottle Rock Power Corporation is now negotiating an electric power purchase contract with a California investor-owned utility. It is anticipated that the final iteration of the contract will conform to the requirements imposed by Public Utilities Code Section 399.6(c)(1)(C) and thereby establish eligibility for Supplemental Energy Payments (SEPs).

- *Question 4*

At this time, it is anticipated that the entire output of the Bottle Rock geothermal facility will be excluded from paying an applicable competitive transition charge.

## Attachment A

### Section VI: Additional Required Information for Specific Fuel Types

- *Question 11 Date facility commenced/will commence commercial operations*

The Bottle Rock Power Corporation will commence commercial operation of its geothermal facility after 01 January 2002. The BRPC predicates this initial commercial operation of the Bottle Rock geothermal facility on the fact that DWR never operated the facility in the established nuance of commercial operation, i.e., the act of commerce by selling its product to another for proper consideration.

- *Question 13 Eligible capital expenditures*

This question is not applicable based upon the answer "No" to *Question 12*

- *Question 14 Documentation for "Incremental Geothermal" specified in RPS Eligibility Guidebook*

This question is not applicable based upon the answer "No" to *Question 12*

### Section VII: Repowered Facility Information

- *Question 25 Generally describe the prime generating equipment replaced/to be replaced at the facility:*

The Bottle Rock Power Plant is in the process of being refurbished for the start of commercial operation in 2006. Accordingly, as required by Title 20, Section 1769, California Code of Regulations, BRPC is preparing the requisite petition to re-fire the Plant for submittal to and approval by the CEC. CEC approval of the petition will allow the Plant to initiate commercial operation.

Submission of BRPC's petition to the CEC notwithstanding, refurbishment of the Plant does not conform to the definition of a "repowered geothermal facility" as stated in the CEC's *Renewables Portfolio Standard Eligibility Guidebook, November 2005, CEC-300-2005-028-SD*.

- a) The BRPC is not replacing any of the "prime generating equipment". There will be no capital expenditures for new equipment related to electricity generation. The entire steam turbine will be refurbished and remain in use. The refurbishment will include the "existing rotor, stationary blades, and gear assemblies". These components will be used again when the Plant is re-fired.
- b) Capital investments will be made not more than two years prior to the date that the Plant commences commercial operation. However, such expenditures will cover refurbishing all Plant equipment that is necessary to the generation of electricity in a geothermal power plant as opposed to replacing it.

Replacing any or all of this equipment, including the "prime generating equipment" will produce little or no improvement to the Plant's efficiency. Thus, the capital investment to refurbish the existing equipment is the



## Attachment A

warranted course of action to re-fire the Plant and commence commercial operation.

**ATTACHMENT B**

**CEC-RPS-1  
Application for Certification**

**Ancillary Discussion**

**Background**

The Bottle Rock Power Plant (Plant) is a 55 megawatt electricity generating facility powered by geothermal steam that never operated commercially and was shut down in 1990. The Plant is located in The Geysers geothermal resource area of Northern California. The California Energy Commission (CEC) serves as the oversight agency for the Plant under docket number 79-AFC-4C.

The Plant was constructed, owned, and operated by the California Department of Water Resources (DWR) from start up in 1985 to shut down in 1990. DWR did not commercially operate the Bottle Rock geothermal facility. All electricity produced by the Plant was consumed by DWR for its own internal purposes. At no time was any of the electricity generated by the Plant sold to any investor owned utility (IOU) or any other end user as an act of commerce.

Subsequent to shut down in 1990, the operating status of the Plant was officially changed to "suspended status" by the CEC in December 1993. The Bottle Rock facility has not operated since 1990 and has remained in "suspended status" since that time to the present date.

Bottle Rock Power Corporation (BRPC) purchased the facility from DWR in August 2001. BRPC is currently refurbishing the Plant and Steamfield and is preparing to initiate commercial operation of the Plant for the first time in 2006.

**Bottle Rock Unique to RPS**

As a prospective source of renewable energy, the application and eligibility of the RPS and SEPs Programs to the Bottle Rock Power Plant (BRPP) is of particular importance. The existence of these circumstances makes the Bottle Rock geothermal facility very unique for the following reasons:

- a) It is a geothermal steam electricity generating Plant and represents a category that receives special treatment in numerous places in renewable energy statutes.
- b) It has been and presently remains shutdown and in a non-operational mode.
- c) It has never sold any electric power to any investor owned utility or any other end user or commercially transported electricity for use to any entity.
- d) All electricity produced by the Plant was used by DWR, its owner at that time, for DWR's electrical usage needs for the California Water Project.

## Attachment B

The importance of BRPP as a renewable energy source notwithstanding, the BRPP does not conveniently fit into the geothermal categories provided by the CEC's *Renewables Portfolio Standard Eligibility Guidebook, November 2005, CEC-300-2005-028-SD (RPSEG)* despite the fact that it does meet statutory definitional requirements for RPS and SEPs.

### **RPS Geothermal Eligibility**

The *RPSEG* establishes the eligibility requirements for geothermal facilities based primarily upon the date the facility first commences commercial operations. There are three key dates that affect BRPP for RPS and SEPs eligibility (*RPSEG*, Nov 2005, pp 11–12):

- a) Pre-26 September 1996
- b) 26 September 1996 to 01 January 2002
- c) Post- 01 January 2002

The BRPP did operate prior to 26 September 1996, but, as already noted, it did not operate **commercially** by selling electricity to an end user prior to 26 September 1996. The electricity BRPP produced was consumed internally by DWR for its own departmental electricity needs.

The BRPP has not operated since 1990 and is not operating in any manner at the present time. Therefore, it did not operate commercially between 26 September 1996 and 01 January 2002.

The BRPP anticipates initiating commercial operation during 2006. Since this anticipated commercial operation date will obviously occur after 01 January 2002, electrical generation from BRPP should be designated as eligible for RPS and SEPs as per the *SPREG* (Nov 2005, pg 12).

### **RPS Eligibility Categories**

The CEC's *RPSEG* presents four eligibility categories for RPS geothermal facilities. These four categories are:

- a) Baseline
- b) Repowered
- c) Incremental Geothermal
- d) New

There are several ways that Bottle Rock's unique attributes are not congruent with language and interpretations of these categories as contained in the *RPSEG* (Nov 2005). This creates consequences not provided for or intended by the laws that implemented the RPS and SEPs Programs. These incongruities are discussed below.

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These incongruities notwithstanding, while the application for BRPP's RPS certification is proceeding and using CEC staff's recommendations in the process, the BRPC intends to resolve pending issues regarding BRPP's eligibility for the RPS and SEPs Programs with the CEC staff.

### ***RPSEG* "Baseline"**

The *RPSEG* states that the baseline represents the amount of renewable generation a utility must retain in its portfolio to continue to satisfy its obligations under the RPS targets of previous years. The business history (static information) of the renewable energy facility determines if the facility may qualify for new or incremental procurement or if it is restricted to baseline and adjusting the baseline (*RPSEG*, Nov 2005, pg 5).

If the business history of a geothermal facility indicates that it became "commercially" operational prior to 26 September 1996, it is restricted by statute to only count towards baseline or adjusting the baseline (*Ibid.*).

The BRPP has never operated commercially. Thus, the Plant should not be categorized as baseline since it did not operate commercially prior to 26 September 1996 (e.g., it did not sell electricity to any IOU). BRPP may be designated as baseline for the prospective participating IOU after one year of commercial operation selling to that IOU, but within the parameters imposed by the applicable statute and the language of the *RPSEG*. It is incongruent to statutorily restrict BRPP as baseline when it has never operated "commercially" in its entire business history.

Moreover, since no IOU at any time purchased electricity from BRPP, it is difficult to arbitrarily assign baseline power to any IOU at present. None of the three California IOUs would agree to have BRPP count against its RPS baseline obligations if it was not already buying power from BRPP. Such action as this would "raise the bar" of its future incremental RPS requirements while delivering none of the benefits of a baseline RPS facility to it.

The geothermal "Baseline" eligibility provision in the Public Utilities Code (§ 399.12) contains a key provision that considers whether the electricity was ever sold to an "electrical corporation". This provision makes clear that the legislative intent was to differentiate between electric power previously sold commercially and electric power never before sold at all. This fact conclusively demonstrates that the BRPP is very unique in that no electric power has ever been sold to any "electrical corporation" or to any other end user. All electric power previously produced was for DWR's intra-departmental consumption.

### ***RPSEG* "Repowered"**

The *RPSEG* requires a "Repowered" geothermal facility to replace the "prime generating equipment" and defines "prime generating equipment" to include the

## Attachment B

“entire steam generator including the turbine rotors, shaft, stationary blades, and any gear assemblies” (*RPSEG*, Nov 2005, pg 33).

The BRPC is not making any capital investments in any equipment to replace any of the “prime generating equipment” as defined in the *RPSEG* (*ibid.*). The BRPC will refurbish the existing steam turbine, including its rotor, stationary blades, and gear assemblies, all of which will be used again to generate electricity when the Plant is re-fired to operate commercially for the first time.

Even though the BRPC will invest significant capital to re-fire BRPP (approximately \$30 million total investment), it is not reasonable to assess or demonstrate that that investment will equal at least 80 percent of the total value of the “Repowered” facility.

Hence, it is clear from the above rationale that the BRPP is not congruent with the *RPSEG*’s criteria for designation as a “Repowered” geothermal facility. Consequently, since BRPP’s status is incongruent with the “Repowered” designation, it could be concluded the BRPP is not eligible for participation in the SEPs Program (*RPSEG*, Nov 2005, Note 2 to Table 1, pg 9).

### ***RPSEG* “Incremental Geothermal”**

Incremental electricity generation from a geothermal facility is eligible for the RPS, but the facility’s eligibility is limited to the generation that results from eligible capital expenditures (*RPSEG*, Nov 2005, pg 12).

A facility with “Incremental Geothermal” generation is eligible for SEPs to the extent that that generation meets the criteria for a “New” or “Repowered” renewable electricity generation facility in California (*ibid.*)

The BRPP is not congruent with the definition of an “Incremental Geothermal” RPS facility as defined in the *RPSEG* (*ibid.*). BRPP does not satisfy the criteria for eligible capital expenditures (*ibid.*). An “Incremental Geothermal” RPS facility is that new or additional portion of an existing Baseline RPS facility, which if considered only as a separate facility, would otherwise meet the definitions of the *RPSEG* for a “New” or Repowered” RPS facility. Since it has already been shown that the refurbishment of the BRPP does not meet the definition of a “Repowered” RPS facility, then, logically, it cannot be congruent with the definition of an “Incremental Geothermal” RPS facility as stated in the *RPSEG*.

There is a lack of clarity in the RPS Program eligibility protocol due to the “Incremental Geothermal” category. There is a difference between a “Repowered” geothermal facility that requires “eligible capital expenditures” for “prime generating equipment” and a geothermal facility that was completely shutdown and is then “Repowered” to again operate.

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Some clarity can be gained by recognizing that the "Incremental Geothermal" category applies only to RPS eligibility as per Public Utilities Code § 399.12 and not to the eligibility of a "Repowered" geothermal facility to qualify for SEPs as per Public Resources Code § 25743.

The *RPSEG's* description of the "Incremental Geothermal" category (Nov 2005, pg 12) is reasonably accurate if it is interpreted to mean that a facility could be both "Incremental Geothermal" per § 399.12 and "Repowered" per § 25743. This interpretation depends on the separate application of each statute to the BRPP.

### ***RPSEG* "New"**

The "New" category is characterized in the *RPSEG* as "Resources that first begin commercial operation on or after January 1, 2002 ..." (*RPSEG*, Nov 2005, Note 1 to Table 1, pg 9). The BRPP geothermal facility will satisfy the existing RPS eligibility requirements for certification as a "New" renewable electricity facility for one fundamental reason. Namely, the BRPP will begin "commercial" operation for the first time after 02 January 2002.

As stated above, the DWR constructed, owned, and then operated the BRPP from February 1985 through November 1990 (prior to 26 September 1996). The electric power generated by the DWR BRPP was consumed by DWR for its own internal purposes.

Even though the BRPP did operate prior to 26 September 1996, at no time during its actual operating period did one kilowatt-hour of electrical energy or capacity flow to the benefit of PG&E, SCE, or SDG&E or any other IOU. Therefore, if the BRPP is considered a "Baseline" RPS facility, the question is begged as to which IOU's "Baseline" it should count against?

DWR no longer owns the BRPP geothermal facility, and can not count the BRPP against its own "Baseline" (if DWR even has one) when the BRPP commences commercial operation in September, 2006. Therefore, when BRPP's BRPP geothermal facility begins "commercial" operations in 2006, it will be the initial "commercial" operation of the facility since its construction and operation in the 1980's.

When viewed in light of the previous paragraph, it is clear that the BRPP is not a "Baseline" adjusting RPS geothermal facility (*RPSEG*, Nov 2005, Table 1, pg 8). The BRPP is a "New" geothermal facility commencing commercial operation after 01 January 2002 (*RPSEG*, Nov 2005, Note 1 to Table 1, pg 9).

### **Summary of Facts**

- The BRPP, built in 1985, mothballed late 1990, and not operated since that time, never sold electric power to PG&E, SCE, or SDG&E or any other IOU during its period of operation.

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- However, the facts of the planned refurbishment and re-firing of the BRPP do not allow it to completely satisfy the current categories in the *RPSEG* for “Baseline”, “Repowered”, “Incremental Geothermal”, or “New” designations that would qualify the BRPP for eligibility to participate in the RPS and SEPs Programs. Despite this, it appears the BRPP is statutorily eligible to participate in both RPS and SEPs.
- When refurbished and placed into “commercial” operation in September, 2006, the BRPP will be selling electric power for the first time to California IOUs in response to the individual IOU Requests for Proposals (RFPs) designed to meet its respective future RPS obligations.
- The fact that the BRPP will be, after refurbishment, a California-sited geothermal facility initiating “commercial” operations to generate and sell electricity for the first time in its business history makes it clear that the BRPP should be certified as an ERR and be eligible for participation in both the RPS and SEPs Programs.

### Conclusion

Since the refurbishment and the re-firing of the BRPP does not find full congruency with any of the current categories for a RPS geothermal facility as described in the *RPSEG* (Nov 2005), and since the BRPP will be “commercially” selling power in California to an IOU as a geothermal power plant, the BRPP should be eligible for certification as an Eligible Renewable Resource (ERR) under the *RPSEG*.

Therefore, the geothermal categories in the *RPSEG* should be subject to discretionary adjustments by the oversight agencies to accommodate the unique facts and conditions that apply to the BRPP, and qualify the BRPP as a “New” RPS facility, certifiable as an ERR, and eligible to fully participate in the RPS and SEPs Programs.



**ATTACHMENT C**

## Attachment C

# CEC-RPS-1 Application for Certification

## Facility Description (With Coordinates)

### Facility Location

In 1980, the California Department of Water Resources (DWR) built a fifty-five (55) megawatt geothermal power plant that was earmarked to supply electricity to the State Water Project. The power plant site is situated in the northern portion of the Known Geothermal Resources Area (KGRA) in Lake and Sonoma Counties of California. The significant portion of the KGRA is commonly referred to as The Geysers, and it remains the largest geothermal electricity generating field in the world. The Geysers are located approximately 90 miles north of San Francisco. The Bottle Rock Power Plant, completed in 1985, sets entirely within Lake County.

### Facility License

The California Energy Commission (CEC) licensed the Bottle Rock Plant under Docket No. 79-AFC-4C. The Plant began operation in 1985, but DWR mothballed the Power Plant in 1990 because of what was interpreted as declining steam production. All steam production wells have subsequently been temporarily suspended to insure safety. The CEC changed the status of the Bottle Rock license to "suspended" in 1993 to reflect the non-operational condition of the Plant. The "suspended status" is differentiated from "retired status".

### Facility Current Status

The Bottle Rock Power Plant has been mothballed in a manner that allows Plant re-firing to occur within a time frame consistent with Plant and Steamfield refurbishment. Refurbishment requires nine (9) to twelve (12) months. The Plant requires refurbishment for safety and reliability. All steam production wells have been temporarily suspended by installing a bridge plug at or near the bottom of each well. One injection well remains operational to handle accumulated storm water and a second one is available as back-up. Removal of the plugs allows the workover of selected wells. The re-worked wells will produce the steam necessary to re-fire the Power Plant and resume electrical generation.

### Facility Parcel Legal Description

The parcel description upon which the facility sets is defined as follows:

- Township 11 North, Range 8 West, M.D.M.
  - Parcel 1
    - Section 5: Lots 5, 6, 9, and 10 of said Section

## Attachment C

- Parcel 2
  - Section 6: Lot 10 of said Section excepting therefrom the following:  
Beginning at the southeast corner of Lot 10 and running north 608.6 feet; thence westerly 715 feet to the place of beginning.
- Parcel 3
  - Section 5: N½ of SW¼ of said Section 5
  - Section 6: N½ of SE¼ of said Section 6
- Parcels contain a total of 350 acres, more or less

The Geothermal Lease and Agreement that combined the parcels described above has been assigned to the BRPC. An annual delay rental fee maintains the Geothermal Lease and Agreement in lieu of drilling or re-working steam wells.

### Facility General Description

The entire facility site sets within the 350 acres of leased property. Improvements to the property include:

- the concrete turbine-generator building;
- a cooling tower;
- a Stretford abatement system;
- various out-buildings;
- several electric transmission towers;
- a 13,800 volt to 230,000 volt main bank substation;
- and all the physical equipment, accessories, and spare parts that pertain thereto.

The Power Plant, as such, occupies 4.3 acres of the leasehold.

In addition to the Plant components, the Steamfield consists of:

- fourteen production steam wells, two of which are condensate re-injection wells;
- approximately 3.5 miles of insulated steam gathering pipes and transmission lines;
- other out-buildings;
- and lay down yard.

The three well pads, Francisco, Coleman, and West Coleman, collectively occupy approximately three (3.0) acres of the leasehold.

Access to the facility site occurs by means of a private road with gated entrance. The road exists as a result of easements from several landowners. Subsequently, a number of private households are offset from the road. Some of the landowners are also lease holders for the Power Plant site.

## Attachment C

The access roads to the well pads are not paved with any surface material of any kind. These roads require annual grading maintenance for ease of passage. The combined lengths of these roads are less than two miles.

### Facility Power Cycle Description

The Geysers is a unique source of steam. The earth's magma is much closer to the surface than is normal. It is kept in place by cap rock, and the heat radiates through the cap rock to boil the water in the aquifers above the cap rock. The steam created is trapped by the earth's surface so that a pathway (a well) must be made to get the steam to the surface. This kind of geothermal system is called a vapor dominated dry steam system. The steam is used as is.

The power cycle begins when a well is drilled into the steam-producing zone. This allows the steam to come to the surface and enter the steam gathering pipeline. The pipeline gathers the steam from all of the wells and transports it to the steam turbine-generator set. The turbine converts the heat energy into mechanical energy. Since the turbine is connected directly to the generator, the generator spins to manufacture electricity. The electricity is transformed to the proper voltage for distribution to the customer.

### Facility Equipment Description

There are five major components that comprise a geothermal power plant: (1) the turbine-generator, (2) the cooling tower, (3) the heat extraction system, (4) the abatement system, and (5) the Steamfield. These components must work in concert for the Plant to produce electric power.

1. The Fuji Electric turbine-generator has a nameplate rating of fifty-five (55) megawatts. The Fuji steam turbine is considered as state-of-the-art equipment. The Fuji turbine-generator has been an extremely reliable piece of operating equipment. **Note:** A turbine bypass system is already installed.
2. The cooling tower is a Research-Cottrell five cell, counter flow tower. The primary function of the cooling tower is to provide cooling water for the main condenser. Cold water acts as the cooling medium for condensing the steam. Maintaining the 40° F temperature differential of condensate into the tower (120° F) and of the same condensate out of the tower (80° F) is imperative for efficient Plant operation.
3. The EcolAire three stage heat extraction system is relatively straightforward. The system components are the main condenser (tube and shell), the inter condenser, the after condenser, and a series of steam jets that remove the gases and thereby maintain system vacuum. There are no moving parts in the system. The function of the heat extraction system is threefold: condense as much steam as possible; remove the

## Attachment C

non-condensable gases from the power cycle; and maintain vacuum on the system to allow efficient Plant operation.

4. The Peabody designed Holmes-Stretford hydrogen sulfide abatement system serves a singular purpose: abate the hydrogen sulfide gas from the non-condensable gas stream. Hydrogen sulfide gas is an odor nuisance, and it is a toxic regulated air pollutant. The Stretford system uses a reduction-oxidation chemical reaction to remove the offensive gas. Hydrogen sulfide is oxidized by reducing the metallic abatement medium and produces elemental sulfur that can be sold as usable commodity.
5. The Steamfield consists of fourteen (14) wells: twelve (12) production wells and two (2) injection wells. It is projected that the steam resource at the Bottle Rock Power Plant will generate at least twenty-five (25) to thirty (30) megawatts initially and for the foreseeable future. Enhancements to the Steamfield and the power station can produce sufficient steam to generate the generator nameplate capacity of fifty-five (55) megawatts.

### **Facility Electric Transmission Lines Description**

The Bottle Rock Power Plant is currently connected by means of a 1.7 kilometer long tie line that connects to the Collection Bus PG&E No. 17 to Fulton 230 kV Line. This connects the Plant to the high voltage grid and also affects access to the California ISO high voltage grid that has the capability of delivering the electric power from the Plant to many locations within the Western States Coordinating Council region.

### **Facility Power Plant Assets**

- Concrete Power House (Turbine Building)
- Fuji Turbine-Generator System (Includes Hydrogen Cooling System)
- Lubricating Oil System (Includes Existing Volume of Lube Oil)
- Control Room Equipment and All Telecommunications Equipment
- Motor Control System
- Emergency Battery Bank
- Emergency Electrical Generators (Diesel) and Associated Buildings
- Electrical Substation (13.8 kv to 230 kv Transformer and Switch Gear)
- Electrical Transformers, Potential Ground Switches, Circuit Breakers and All Other Related Electrical Systems
- Electric Transmission Towers (Several as part of tie line)
- Heat Extraction System (Main, Inter, and After Condensers)
- Turbine Bypass Condensing System
- Research-Cottrell Five Cell Counter-Flow Cooling Tower
- Condensate and Circulating Water Pumping Systems and All Other Ancillary Pumps
- Peabody Designed Holmes-Stretford H<sub>2</sub>S Abatement System
- Stretford Control Building, Controls, and Associated Analytical Laboratory

## Attachment C

- Stretford Sulphur Co-Product Management System
- Secondary Abatement System with All Related Storage Tanks and Pumps
- Main Steam Emergency Exhaust Muffler System
- Plant Yard Fixtures, Improvements, and Various Out-Buildings
- All Spare Parts on the Premises (Including but not limited to the Spare Turbine Rotor, Diaphragms, Gear Boxes, Condenser Tubes) and All Special Tools

### Facility Steamfield Assets

- Fourteen (14) Wells on Three (3) Different Pads
- Twelve (12) Production Steam Wells
- Two (2) Liquid Re-Injection Wells
- Steam Gathering and Transmission Piping (Approximately 3.5 Miles Total)
- Steamfield Control Building, Shop, Lay Down Yard, and Various Out-Buildings
- Wellhead Valves of Various Sizes
- Motorized Main Steam Stop Valves

### Related Assets

- All Relevant Instruction Manuals, Engineering Data Books, and Parts Catalogues at the Plant or at any other location
- All Relevant Drawings (Including but not limited to All Diagrams, and Piping and Instrument Drawings) at the Plant or any other location
- All Plant and Steamfield Performance Records at the Plant or any other location

### Facility Street Address

- Bottle Rock Power Plant  
7557 High Valley Road  
Cobb, CA 95426

### Facility Corporate Mailing Address

- Bottle Rock Power Plant  
1275 4<sup>th</sup> Street, No. 105  
Santa Rosa, CA 95404