Docket Number:	79-AFC-04C
Project Title:	Compliance - Application for Certification of DWR Bottlerock Geotherma Project
TN #:	200053
Document Title:	Bottle Rock Power, LLC's Response to Staff's Data Requests, Set 1
Description:	N/A
Filer:	Sabrina Savala
Organization:	Sabrina Savala on behalf of Stoel Rives/ K. Hellwig
Submitter Role:	Commission Staff
Submission Date:	7/29/2013 1:54:41 PM
Docketed Date:	7/29/2013

Kristen T. Castaños Direct (916) 319-4674 ktcastanos@stoel.com

July 29, 2013

VIA EMAIL

Ms. Camille Remy Obad, Compliance Project Manager California Energy Commission 1516 Ninth Street Sacramento, California 95814

Re: Bottle Rock Geothermal Project (79-AFC-4C)
Bottle Rock Power, LLC's Responses to Staff's Data Requests, Set 1 (#1-5)

Dear Ms. Remy Obad:

On June 28, 2013, Bottle Rock Power, LLC ("BRP") received Staff's Data Requests, Set 1 (#1-5) as such relate to the Bottle Rock Geothermal Project's (the "Project") Petition to Amend ("Petition"). BRP objected to Data Requests #1, 2 and 5, in part, on July 18, 2013. Notwithstanding those objections, BRP responds to Data Requests, Set 1, in the enclosure herein.

Should you have any questions regarding this submittal, please do not hesitate to contact Brian Harms or me.

Very truly yours,

Kristen T. Castaños

KTC:jmw

cc: Service List

¹ Applicant notes that the version of Staff's Data Requests served on June 28, 2013 was missing a page. Service of the complete set of data requests was effectuated on Monday, July 1, 2013.

Technical Area: (General Conditions) Compliance

Author: Camille Remy Obad

DATA REQUEST

1. Please provide a detailed description of alternative financial assurance mechanisms, other than that proposed in your PTA, that would allow the Energy Commission (as the beneficiary) to access, within 30 days, the total amount of the CPM approved closure cost estimate and closure plan.

<u>Response</u>: Notwithstanding BRP's objection, docketed July 18, 2013, BRP responds that the available financial assurance mechanisms that would allow the Energy Commission to access the total amount of the CPM approved closure cost estimate and closure plan are identified in the Petition and there are no known alternatives.

Technical Areas: Hazardous Materials, Waste Management, Worker Safety, Geology, Soil and Water Resources, Biological Resources

Authors: Paul Marshall, Marylou Taylor, Ed Brady, Casey Weaver, and Amy Golden

DATA REQUEST

- 2. Please update the decommissioning estimate to include the following items which are necessary to ensure potential environmental impacts can be mitigated:
- Include all hazardous waste testing, sampling, profiling, transportation and disposal costs

<u>Response</u>: These costs are included in the Bottle Rock Power Plant Decommissioning Estimate prepared by Plant Reclamation and submitted to the Commission on April 15, 2013 (TN # 70304) (hereinafter referred to as, "Original Decommissioning Estimate"). A Revised Decommissioning Estimate, attached hereto as Attachment A, clarifies that these costs are included.

• Costs for grading, re-surfacing, and stabilization of exposed site soils (only backfill of pits, voids and basins was included in the estimate)

<u>Response</u>: These costs have been included in the Revised Decommissioning Estimate.

• Costs for non-hazardous waste transportation and disposal offsite

<u>Response</u>: The Revised Decommissioning Estimate includes the costs associated with non-hazardous waste transportation and disposal.

• Costs to remove all building utilities unrelated to the buildings that will remain (such as electrical and fire protection)

<u>Response</u>: Notwithstanding BRP's previous objection, BRP responds that with respect to building utilities that will be removed, the costs to remove those building utilities are included in the Original Decommissioning Estimate and the Revised Decommissioning Estimate, as part of the costs to remove the buildings.

 Costs for permits and authorizations, such as modification of the Storm Water Pollution Prevention Plan (SWPPP), Section 401 Water Quality Certification and Regional Board Waste Discharge Requirements, and California Department of Fish and Wildlife Section 1600 Streambed Alteration Agreement (only California Occupational Health and Safety Administration (CalOSHA) and Air Quality permits were included in the estimate)

<u>Response</u>: Notwithstanding BRP's previous objection, BRP responds that costs for anticipated permits and authorizations have been included in the Revised Decommissioning Estimate.

• Costs to remove the transformers

<u>Response</u>: Costs to remove the transformers are included in the Original Decommissioning Estimate. The Revised Decommissioning Estimate clarifies that these costs are included.

• Costs to remove underground equipment (pipes, valves, etc) within the fence line that are not associated with maintenance and future use of the buildings and access roads

<u>Response</u>: Notwithstanding BRP's previous objection, BRP responds that costs to remove major underground equipment are included in the Original Decommissioning Estimate and the Revised Decommissioning Estimate.

• Costs to maintain stormwater drains within the fence line

<u>Response</u>: Notwithstanding BRP's previous objection, BRP responds that costs to implement appropriate stormwater controls as required by law are included in the Revised Decommissioning Estimate.

• Costs to install or enhance erosion control measures (jute netting, straw waddles, etc) along southern and western fence line to control intermittent drainage

<u>Response</u>: Notwithstanding BRP's previous objection, BRP responds that costs for appropriate erosion control measures have been included in the Revised Decommissioning Estimate.

Costs to perform pre-demolition biological surveys, presence of an approved biological
monitor, and any other measures to avoid or minimize the potential for impacts to nesting
or foraging wildlife or offsite rare plant occurrences (such as dust abatement) during
demolition activities.

<u>Response</u>: Notwithstanding BRP's previous objection, BRP responds that costs to ensure protection of biological resources during decommissioning have been included in the Revised Decommissioning Estimate.

• Costs for maintenance and security of the facility

<u>Response</u>: Notwithstanding BRP's previous objection, BRP responds that costs for maintenance and security of the facility during decommissioning are included in the Original Decommissioning Estimate, as well as the attached Revised Decommissioning Estimate.

3. If salvage value for metal waste is to be considered, the net value must be calculated after including the cost for loading and transportation costs.

<u>Response</u>: The estimated costs for loading and transportation related to the salvage value for metal waste have been specifically identified in the Revised Decommissioning Estimate.

4. If the salvage value of the turbine generator equipment is to be included, an independent cost estimate from a salvage company qualified to assess the value should be provided.

Response: The estimated salvage value of the turbine generator equipment that was included in the Original Decommissioning Estimate was provided by a salvage company qualified to assess the value. Additional information is included in the Revised Decommissioning Estimate.

5. Please provide a description of the damages contained in item 8 indicated above. If the damages physically affect the site, please identify the nature, importance, volume and threat to the environment/personnel that would be exposed to the damage in the course of site restoration.

Response: Notwithstanding BRP's previous objection, BRP responds that the damages described in item 8 of the "Amended and Restated Geothermal Lease and Agreement," dated July 25, 2012, between V.V. & J. Coleman, LLC and Bottle Rock Power, LLC do not pertain to site restoration and will not impact the cost of decommissioning, closure and site restoration.

ATTACHMENT A



Plant Reclamation

July 29, 2013

Bottle Rock Power, LLC 7385 High Valley Road P.O. Box 326 Cobb, Ca. 95426

Attn: Mr. Brian Harms General Manager

Re: Bottle Rock Power Decommissioning Report Dated July 29, 2013.

Dear Mr. Harms:

Please find enclosed the Bottle Rock Power Decommissioning Report dated July 29, 2013. This report replaces the submittal of the report dated 15 April 2013 to provide additional information requested and to clarify and more accurately reflect the cost as the project is proposed to be performed.

Some of the inclusions in this estimate report as revisions to the 15 April 2013 report are as follows:

- 1: Reduced cost of certain removal items that are absorbed by the salvage contractor.
- 2: Grading and preparation of demolition areas to facilitate drainage.
- 3: Costs to adequately cover minor additional permits.
- 4: Costs to cover biological surveys.
- 5: Clarification of the included tasks in hazardous waste disposal.
- 6: Removal of the step up transformer.
- 7: Clarification of scrap and salvage net value

Please contact me with any questions.

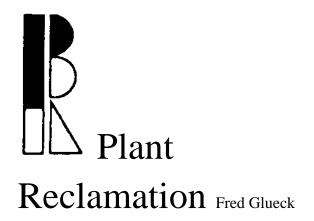
Sincerely,

Fred Glueck

Fred Glueck Plant Reclamation

Bottle Rock Power Plant Decommissioning Estimate

July 29, 2013



We are California Licensed Contractors #518628 and conform to all rules and regulations, both Federal and State, pertaining to same. We are bondable and have available in excess of ten million dollars (\$10,000,000.00) in liability insurance and compensation insurance as required by law.







Power Plant

Major Tasks

This estimate provides a cost break out for the following categories of decommissioning and reclamation activities:

- 1. Removal of above grade power production equipment:
 - * Low pressure steam turbine and associated components
 - * Condenser
 - * Generator
 - * Circulating water pumps and motors
 - * Gas extraction equipment
 - * Lubricating oil components
 - * Valves, piping, pumps and motors
 - * Cooling tower and cooling tower pump basin equipment
 - * Switch gear
 - * Rock muffler system
 - * Step up transformer
 - * Stretford system
 - * Miscellaneous piping, buildings and equipment
- 2. Remove all above grade foundations and footings to the top of slab or pad.
- 3. Backfill cooling tower basin, circulating water pump basin, pipe trench and all other pits and trenches associated with the scope of work as described including facilitation of drainage.
- 4. De-contaminate Stretford system prior to demolishing and recycling.
- 5. Designate scrap value and resale value for turbine/generator and support equipment.
- 6. Disposal of hazardous waste.

Page 1

Assumptions

The removal of the above grade assets as identified in item number 1 above is predicated on the following assumptions:

- 1. Owner to supply water for fire safety and dust control.
- 2. Owner to be responsible to provide power to turbine building in order to facilitate the use of the overhead crane and lighting systems.
- 3. All structures in the work scope to be removed to top of slab or pad or bottom of pits and basins except for the turbine building, the office building, the stand by generator building and the fire protection building.
- 4. All concrete rubble and non- hazardous debris generated during dismantling can be placed in the pits, voids and basins located in the work zone.
- 5. Backfill of pits, voids and basins will be performed with the use of onsite borrow source material. No engineering of the backfill, testing or compaction is included. Backfill will be placed at 90% placement criteria, not in engineered lifts. Surfaces will be graded for facilitation of drainage.
- Contractor will obtain CalOsha and Air Quality permits. All other permits and authorizations will be the responsibility of the owner such as SWPP modification and pre-decommissioning biological surveys but those costs have been included in the estimate.
- 7. Owner will be responsible for isolation of all utilities. Owner will drain all lines and make the site safe for dismantling work. Contractor will assist in the decontamination of the Stretford system for dismantling and recycling purposes.

Time frame

The project time frames and budget estimates are predicated on a single mobilization by the contractor, therefore Bottle Rock Power or those who use this report must not presume that the project can be performed on a pick and choose as you desire method. The budget estimates are identified by area for cost allocation purposes only. Multiple phases of work could be occurring at concurrent times based on weather and man power availability. Only a single site mobilization and de-mobilization is included in the budget estimate.

The project time frame is estimated to be approximately 5-6 months. Work would occur Monday through Thursday 10 to 12 hours per day.

Tasks broken down

The breakdown below is based on the work to be performed located at the production facility site and is identified by task, the estimated salvage recovery value in 2013 dollars and the backfill costs associated with the work area. The work areas are defined as listed below:

- 1. Turbine/Generator Building:
 - a. Remove all interior equipment as identified
 - b. Salvage value of scrap from demolition.
 - c. Resale value of turbine/generator and support equipment.



Turbine Generator



Turbine Generator (top)



Support Equipment

- 2. Cooling Tower and Circulating Water Pump Equipment
 - a. Remove cooling tower
 - b. Backfill cooling tower and pump basins and grade to facilitate drainage.
 - c. Salvage value of scrap from demolition and salvage value of circulating pump equipment



Cooling Tower

Page 3

- 3. Stretford System
 - a. Decontaminate Stretford equipment for dismantling
 - b. Salvage value as scrap of Stretford equipment



Stretford Equipment

- 4. Pipe trenches and miscellaneous structures, gas extraction and rock muffler
 - a. Remove piping in trench and remove miscellaneous structures
 - b. Backfill pipe trench and grade to surface.
 - c. Salvage value as scrap of pipe and miscellaneous materials



Gas Handling System



Steam Separator and Stacking System

Itemized Cost Breakdown

Below is an itemized cost breakdown by work zone for the project. The method of calculation is included in the appendix. The costs include; labor, equipment, overhead, subsistence, room, permits, rentals, mobilization and de-mobilization. Where appropriate, costs have been reduced as part of the scrap and equipment salvage value.

Work Area	Work Duration (in weeks)	Removal Cost	Backfill Cost	Other Costs
T/G Building	4	\$ 208,000.00	N/A	N/A
Rock Muffler	4	\$ 162,100.00	\$ 5,300.00	N/A
RM Piping to T/G	1	\$ 40,500.00	N/A	N/A
Stretford	3	\$ 121,600.00	N/A	N/A
Stretford Decon.	included	\$ 175,000.00	N/A	N/A
Pipe Trench	1	\$ 40,500.00	\$ 18,700.00	N/A
Cooling Tower	4	\$ 112,100.00	\$ 112,500.00	N/A
C/T Pump Basin	2	\$ 81,100.00	\$ 140,000.00	N/A
Gas Plant	3	\$ 121,600.00	N/A	N/A
Misc Permits and Biological Survey	included	N/A	N/A	\$ 45,000.00
Grading and facilitation of drainage	included	N/A	N/A	\$ 35,000.00
TOTAL:	22 Weeks	\$ 1,062,500.00	\$ 276,500.00	\$ 80,000.00

Salvage values have been predicated on total salvage recovery generated for the dismantling project. Estimates are in July 2013 dollars. Actual prices will be dependent upon the material grading and value at time of sale. Plant Reclamation will be the primary contractor with estimates based on experience with scrap subcontractors such as: Schnitzer Steel Industries, Standard iron & Metal, and Sims Metal Management, and salvage equipment subcontractors such as Beltway Power.

The value of turbine generator and support equipment is based on industry experience and assumes the net to the decommissioning project on an "as is, where is" basis. The cost of removal, handling and transportation is included in the net value. The same assumptions are made for the step up transformer in the used equipment market.

Estimated recovery values are as follows:

Item	Value
Stainless Steel, Mixed Copper, Scrap Steel	\$ 165,000.00
Turbine Generator and associated items	\$1,000,000.00
Step up Transformer	\$ 100,000.00
TOTAL:	\$1,265,000.00

Hazardous Waste

Below is a list of four expected hazardous waste material streams from facility decommissioning. Included is the number of loads generated from that waste stream as well as the cost for the transportation and disposal on those waste streams. These estimates also include required sampling and profiling of the waste.

Probable Waste Streams	Amount (by load)	Costs
Cooling Tower Debris	150	\$ 450,000.00
Stretford Waste	10	\$ 30,000.00
Waste Oil	2	\$ 5,000.00
Rock Muffler	20	\$ 70,000.00
	TOTAL:	\$ 555,000.00

Summary

The following table explains the net cost including the amount offset by the net value of scrap, salvage and used equipment:

Item	Amount
Removal Cost	(\$1,062,500.00)
Backfill Cost	(\$276,500.00)
Other Costs	(\$80,000.00)
Hazardous Waste Cost	(\$555,000.00)
Asset Recovery	\$1,265,000.00
Total Cost	(\$709,000.00)

APPENDIX A

The budget as provided above has been developed based on the following general cost allocations.

Labor is based on a crew of 8-10 men which includes: supervision, equipment operators and dismantling technicians.

The weekly crew cost includes: wages and benefits, transportation, room and board and subsistence.

The weekly labor cost is approximately:

\$35,000.00 per week.

Contractor owned equipment included in the budget is identified below:

Hydraulic excavator w/hydraulic steel cutting shear.

Hydraulic excavator w/concrete breaking hammer.

Hydraulic excavator w/thumb & bucket.

Hydraulic excavator w/material handling grapple.

Skid steer loader w/ grapple bucket.

Rental equipment:

Compactor.

Backhoe.

Dump trucks.

Outside services:

Crane and rigging included in the weekly equipment budget.

The weekly equipment budget is approximately:

\$16,000.00 per week.

Other outside service costs are for environmental decontamination:

Stretford decontamination is approximately:

\$175,000.00

(T&D is included separately).

The weekly labor and equipment costs above include contractor: overhead, profit, materials and supplies.

The final component to be added to the above cost items is the mobilization and demobilization cost for the equipment which is estimated at: \$17,000.00.

If the weekly costs are extended out as broken out the budget is derived as follows:

Item	Quantity	Cost		Extended Cost	
Labor	22 weeks	\$	35,000.00	\$	770,000.00
Equipment	22 weeks	\$	16,000.00	\$	352.000.00
Mob/Demob	included	\$	17,000.00	\$	17,000.00
Stretford Decon	included	\$	175,000.00	\$	175,000.00
			TOTAL:	\$	1.314.000.00

Project sequencing would be scheduled as follows:

Week 1: Mobilization and set up.

Week 2-15: Remove Cooling Tower, Rock Muffler, Gas Plant, Cooling Tower Pump Basin, Decon Stretford, Remove Stretford and backfill Pits and Basins.

Week 16-20: Remove equipment in Turbine Building.

Week 21-22: Complete site cleanup and demobilization.

DECLARATION OF SERVICE

I, Marilyn Sykes, declare that on July 29, 2013, I served and filed copies of the attached Bottle Rock Power, LLC's Responses to Staff's Data Requests, Set 1 (#1-5) dated July 29, 2013. This document is accompanied by the most recent Proof of Service, which I copied from the web page for this project at: http://www.energy.ca.gov/sitingcases/bottlerock/index.html.

The document has been sent to the other parties in this proceeding (as shown on the Proof of Service) and to the Commission's Docket Unit, as appropriate, in the following manner:

(Check one)

For Ser	vice to all other parties and filing with the Docket Unit at the Energy Commission:
×	I e-mailed the document to all e-mail addresses on the Service List above or deposited it in the US mail with first class postage to those parties noted above as "hard copy required";
	OR
	Instead of e-mailing the document, I personally delivered it or deposited it in the US mail with first class postage to all of the persons on the Service List for whom a mailing address is given.
	e under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and nover the age of 18 years.
Dated:	July 29, 2013
	Marilyn Dykes

Marilyn Sykes

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Proof of Service List

Docket: 79-AFC-04C

Project Title: Compliance - Application for Certification of DWR Bottlerock Geothermal Project

Applicant

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Applicant's Representative

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Intervener's Representative

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California Energy Commission

Sacramento, CA

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