State Of California | The Resources Agency of California

Memorandum

Date: May 24, 2013
Telephone: (916) 654-3940
File: 79-AFC-4C

To: **Commissioner Karen Douglas**, Commissioner - Presiding Member
Chairman Robert B. Weisenmiller, Chairman - Associate Member
Paul Kramer, Hearing Officer

From: **California Energy Commission -**
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Subject: **BOTTLE ROCK GEOTHERMAL PROJECT AMENDMENT (79-AFC-4C)**
ISSUES IDENTIFICATION REPORT

Attached is staff's Issues Identification Report for the Bottle Rock Geothermal Power Plant Petition to Amend. This report serves as a preliminary scoping document that identifies issues that Energy Commission staff believes will require careful attention and consideration. This report also provides staff's proposed schedule of events for the amendment process.

Attachment

cc: Docket 79-AFC-4C
Docket 12-CAI-04
Mail List #771

BOTTLE ROCK GEOTHERMAL PROJECT CLOSURE AMENDMENT

(79-AFC-4C)

ISSUES IDENTIFICATION REPORT

CALIFORNIA ENERGY COMMISSION

Siting, Transmission and Environmental Protection Division

ISSUES IDENTIFICATION REPORT
BOTTLE ROCK GEOTHERMAL PROJECT AMENDMENT

(79-AFC-4C)

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ISSUES IDENTIFICATION REPORT

Energy Commission Staff Report

PURPOSE OF THE REPORT

This report is prepared by the California Energy Commission (Energy Commission) staff to inform the Committee and all interested parties of the potential issues identified thus far in the review of Bottle Rock Power, LLC's (BRP) Petition to Amend (Petition) submitted on March 8, 2013. Issue identification also resulted from discussions with state and local agencies, review of prior and current environmental analyses for the Bottle Rock Geothermal Power Plant (Bottle Rock) and surrounding facilities, documents for previous Energy Commission geothermal proceedings and guidance manuals such as the 1991 "Power Plant Decommissioning Study".

The Issues Identification Report contains a project description, summary of potentially significant environmental and engineering issues, and a discussion of the proposed project schedule. The staff will continue to address the status of issues and progress towards their resolution in periodic reports to the Committee.

AMENDMENT PROCESS

The proposed Petition will be processed as an amendment to Bottle Rock's Conditions of Certification (COCs) as provided in the Energy Commission's November 5, 1980 Decision. The purpose of the Energy Commission's review process is to assess the impacts of this proposal on environmental quality and public health and safety. The review process includes an evaluation of the consistency of the proposed changes with the Energy Commission's Decision and whether the project, as modified, will remain in compliance with applicable laws, ordinances, regulations, and standards (LORS) (Title 20, Calif. Code of Regulations, section 1769).

BACKGROUND

In 1980, the Energy Commission certified the California Department of Water Resources' (DWR) 55 MW Bottle Rock plant to provide electricity for the State Water Project, operations at the Bottle Rock facility commenced in 1985. By 1990, DWR elected to close the facility due to a lack of steam. The Commission approved an amendment to the conditions of certification that modified the monitoring and reporting requirements in consideration of the plant's shutdown status in April 1993 [Energy Commission Order #93-0426-02]. The Commission approved an extension for the suspension of operations in October 1997, allowing DWR an additional three years to prepare a facility closure plan [Energy Commission Order #97-1203-1(a)].

On April 6, 2001, DWR submitted a Petition to transfer ownership of the Bottle Rock plant from DWR to the Bottle Rock Power Corporation. The Energy Commission approved the Petition for transfer of ownership at a regularly scheduled Business

Meeting. In its Order Dated May 30, 2001, the Commission found that “adequate measures appear to have been taken to enable DWR to ensure the proper closure and decommissioning of the Bottle Rock Power Plant subsequent to the transfer of ownership in the event Bottle Rock Power Corporation is unable to do so.” The Energy Commission’s approval was specifically conditioned on compliance with the purchase agreement:

> (a) The parties shall strictly adhere to the terms of the "Purchase Agreement for the Bottle Rock Power Plant and Assignment of Geothermal Lease".

The Purchase Agreement included sections 2.4 (Security for Decommissioning and Reclamation Liabilities) and 2.5 (Environmental Impairment Insurance).

Section 2.4 of the Purchase Agreement required Bottle Rock Power Company to deliver a five (5) million dollar surety bond to DWR to ensure that sufficient funds would be available for the eventual decommissioning of the facility, and required that the bond remain in place until five (5) years after completion of all decommissioning. Section 2.4(a) further provided that:

> “…if [DWR] receives a complete release of liability under the Francisco Steam Field Lease, then Buyer may adjust the amount of the bond to the amount of an independent engineering estimate approved by [DWR] of the cost of decommissioning the Plant and Steam Field required to meet the requirements of the California Energy Commission, the County of Lake and any other regulatory agency with jurisdiction.”

Section 2.5 of the Purchase Agreement requires that Bottle Rock Power Corporation maintain an Environmental Impairment Insurance policy, with limits on liability in an amount of not less $10 million, designating DWR as a co-insured. That section also mandated that the policy must remain in effect at all times during the operation and decommissioning of the power plant, and extends to the associated steam fields.

On December 13, 2006, the Energy Commission approved the change of ownership from Bottle Rock Power Corporation, LLC to Bottle Rock Power LLC, filing an Order to that effect. The Order also changed or deleted some, but not all, Conditions of Certification, and allowed the restart of operations. All other conditions remained in full force and effect, including the condition that BRP strictly adhere to the Purchase Agreement, which required the maintenance of a closure bond and environmental insurance.

On August 29, 2012, BRP and DWR finalized an agreement amending the Purchase Agreement, which included a settlement agreement with landowners V.V. & J. Coleman, LLC. That amendment deleted sections 2.4 and 2.5 from the Purchase Agreement, and provided DWR with a complete release of liability. BRP has indicated that their $10 million Environmental Impairment Insurance Policy is still in effect until May 30, 2016.

On October 11, 2012, David Coleman filed a Complaint pursuant to California Code of Regulations, title 20, section 1237, alleging that that amendment to the Purchase Agreement violated the Commission's May 30, 2001 Order.

On January 22, 2013, the Committee appointed to the matter conducted a hearing, and thereafter concluded that Bottle Rock Power violated the terms and conditions of its permit to operate by failing to have a surety bond in the amount of $5 million. The Committee ordered BRP to either file a new surety bond in the principal amount of $5 million, or file a petition to amend the bond requirement and submit an engineering study establishing the costs of decommissioning the Bottle Rock Power Plant or provide documentation indicating that Respondent has entered into a contract for completion of such a study.

On March 8, 2013, BRP filed a Petition to Amend. On April 15, BRP submitted a decommissioning estimate prepared by Plant Reclamation, LLC, seeking to relieve the project owner from the specific requirement to "strictly adhere to the terms of the Purchase Agreement".

SUMMARY OF PROPOSED MODIFICATIONS

In addition to deleting BRP's requirement to "strictly adhere" to terms of the Purchase Agreement, including the aforementioned financial assurances, the proposed modifications would delete existing Biology (5-2), Soils (8-4) and Civil Engineering (9-5) decommissioning requirements and replace them with three updated Compliance COCs for planned and unplanned closures, and one new "Decommissioning Financial Assurances" COC.

POTENTIAL MAJOR ISSUES

This portion of the report discusses the potential issues the Energy Commission staff has identified to date. The Committee should be aware that this report might not include all of the significant issues that may arise during the review of the Petition, since discovery is not yet complete, and other parties have not had an opportunity to identify their concerns. Potential issues identified in this report are based on comments from other government agencies and on our judgment of whether any of the following circumstances could occur:

- Potential significant impacts which may be difficult to mitigate;
- Potential areas of noncompliance with applicable laws, ordinances, regulations or standards (LORS);
- Areas of conflict or potential conflict between the parties; and
- Areas where resolution may be difficult or may affect the schedule

This report will not limit the scope of staff's analysis throughout this proceeding, but it acts to aid in the analysis of the potentially significant issues that the Petition poses. At this time, staff does not see these potential issues as non-resolvable.

The table below lists all the subject areas evaluated and notes that Biology, Soil and Water Resources, Waste Management and Compliance (formerly identified as General Conditions in the Bottle Rock Decision) have currently identified potentially significant issues. The table also indicates the subject areas in which staff, at the present time, expects to issue Data Requests (DRs). DRs in these or additional areas may become necessary as the review of the Petition progresses.

Major Issues	DRs	Subject Area	Major Issues	DRs	Subject Area
No	Yes	Air Quality	No	Yes	Public Health
Yes	Yes	Biological Resources	No	Yes	Socioeconomics
No	Yes	Cultural Resources	Yes*	Yes	Soils and Water Resources
No	Yes	Facility Design	No	Yes	Traffic and Transportation
No	Yes	Geological Hazards	No	No	Trans. Line Safety & Nuisance
Yes	Yes	General Conditions	No	No	Transmission System Design
No	Yes	Hazardous Materials	No	Yes	Visual Resources
No	Yes	Land Use	Yes*	Yes	Waste Management
No	No	Noise	No	Yes	Worker Safety
No	No	Paleontological Resources			

*Major issues relating to Soil and Water Resources and Waste Management concern the expenses provided in the April 15, 2013 decommissioning estimate and are discussed in the "General Conditions" section below.

GENERAL CONDITIONS

In the February 6, 2013 Decision sustaining the complaint against BRP the Committee concluded that BRP "violated its license for failing to maintain the $5 million bond required by the 2001 Order". The Committee ordered BRP to file a new surety bond in the principal amount of $5 million by March 8, 2013 or stay the bond Order by submitting a petition to amend the bond requirement and an engineering study and decommissioning cost estimate. In response BRP filed this Petition and an engineering cost estimate for closure.

The Petition proposes changes to various closure and reclamation requirements including that within *six months* of the Energy Commission's approval of the Petition, BRP would submit a Preliminary Decommissioning Scoping Plan (PDSP) to Lake County and the Energy Commission. After the PDSP is approved, the Petition further proposes that the Project Owner submit a "Decommissioning Funding Plan" within 90 days.

Staff is currently determining the conditions of certification and LORS that may impact the scope the facility's closure. Depending on staff's analysis, BRP's engineering cost estimate may require adjustment to consider a new scope.

Staff believes the bond should include all costs to meet the Energy Commission's conditions for closure. Staff will only consider elements within the fence line, plus the transmission line (to point of interconnection), since it was build pursuant to the

Commission's decision. Because of the uncertainty concerning the scope of the removal, staff would like to consider costs for the following two scenarios:

- Scenario 1 - Removal of everything
- Scenario 2 - Removal of everything except for the main building (which would require ongoing cost of maintenance and security).

Of particular concern are the following items that are not included in the estimate, which could potentially increase the total costs significantly:

- All hazardous waste testing, sampling, profiling, transportation and disposal costs;
- Costs for grading and re-surfacing of site (only backfill of pits, voids and basins are included in the estimate);
- Costs for non-hazardous waste transportation and disposal offsite;
- Costs to remove the turbine building, the office building, the stand by generator building and the fire protection building;
- Costs to remove the turbine deck, the vertical concrete support columns and other structural members (only process equipment and attachment brackets are included in the estimate);
- Costs to remove all building utilities (such as electrical and fire protection); and
- Costs for permits and authorizations, such as modification of the Stormwater Pollution Prevention Plan (only CalOSHA and Air Quality permits are included in the estimate)

Staff believes additional costs may be needed, which are not mentioned in the cost estimate:

- Costs to remove the transmission line, towers, and tower footings[1]
- Costs to remove underground equipment (pipes, valves, etc) within the fence line that are not associated with power production[2]
- Power plant site restoration, revegetation and post closure monitoring[3]
- Should Scenario 2 happen, other costs to include are:
  - Costs of site maintenance and security
  - Costs of main building maintenance, if needed

Finally, staff recognizes that a comprehensive analysis of all activities required for closure could result in substantial changes to the engineering cost estimate. Staff believes that the Petition's timeframes for developing and approving a PDSP, combined with the additional time requested to prepare a Decommissioning Funding Plan will substantially delay the reestablishment of a financial assurance mechanism for closure.

[1] Tower footings were allowed to remain in place for Coldwater Creek Geothermal Project, but removal may otherwise be required by Lake County.
[2] Documents are unclear whether cost estimate includes removal of pipes or associated facilities used to collect steam from the steam fields to the power plant.
[3] Lake County may require specified restoration and revegetation protocols and specified drainage protocols.

BIOLOGICAL RESOURCES

This section summarizes the major outstanding issues indentified for biological resources and the eventual closure of the Bottle Rock facility. BRP's original and amended Energy Commission license includes **Condition of Certification 5-2**, **Closure Plan – Biological Resources Element**, which requires that the project owner submit at least one year prior to power plant deactivation, a decommissioning plan inclusive of a Biological Resources Element. The County of Lake's Draft Environmental Impact Report (EIR)/Environmental Assessment of the Bottle Rock Power Steam Project identifies impacts and mitigation related to long-term deterioration of plant and animal habitat due to project abandonment and site closure. The California Environmental Quality Act (CEQA) analysis prepared by County of Lake for BRP includes Mitigation Measure 5.5-9, Prepare and Implement Final Site Restoration Plan at Site Closure. This measure requires a habitat restoration plan be prepared prior to closure of any part of the facility and that the closure plan be prepared in conjunction with final site grading and drainage control plan(s), all of which would be subject to CEQA review at that time. Mitigation Measure 5.5-9 requires that the site restoration plan at a minimum include the following: restoration sites and goals, methods and specifications for site restoration, criteria for revegetation success, monitoring and reporting schedule, measures for invasive species control and removal, and recommendations for future revegetation activities conducted at the site. Moreover, the County of Lake's Amended Use Permit for BRP contains permit conditions specific to protecting plant associations by requiring the development of a revegetation program.

Staff believes to successfully restore biological habitat values additional consideration should include, but is not limited to: minimization of erosion and additional disturbances, enhancement of wildlife habitat values, and revegetation of disturbed areas using predominantly native plant species. Closure of the Bottle Rock facility would likely require a Conceptual Restoration Plan. Staff believes the Conceptual Restoration Plan should at a minimum include: identification of each specific disturbance area and their site specific restoration and revegetation treatment(s), monitoring methods (qualitative and quantitative) and performance standards for each type of treatment, a revegetation monitoring schedule and reporting protocol.

The Petition proposes to remove **Condition of Certification 5-2**, **Closure Plan – Biological Resources Element** and proposes to include four new COCs relating to planned closure, unplanned closure, and decommissioning financial assurances of the facility. None of the four new proposed COCs includes a biological resources component or a requirement of the project owner to prepare and submit a site habitat restoration plan. Moreover, the engineering cost estimate prepared by Plant Reclamation, LLC, and submitted by BRP on April 15, 2013 to assist with determining the amount needed for the surety bond, did not include any costs for site revegetation, long-term monitoring, nor pre- or post-closure biological studies or biological monitoring. In summary, BRP's Petition to Amend the Commission Decision and engineering cost estimate provide no means for guaranteeing the site would be restored for biological values following closure nor does the petition identify the goals or objectives of site restoration following a subsequent closure of the facility.

PROJECT SCHEDULE

Provided below is the staff's proposed schedule for key events of the project. Meeting the proposed schedule will depend on the project owner's timely response to staff's data requests; determinations by other agencies; and other factors not yet known.

STAFF'S PROPOSED SCHEDULE

Bottle Rock Geothermal Project Amendment - (79-AFC-4C)

ACTIVITY	DATE
Applicant files Petition For Amendment	03/08/13
Staff files Notice of Receipt	03/14/13
Staff files Issues Identification Report	05/24/13
Site Visit and Committee Conference	05/31/13
Staff files Data Requests	06/14/13
Applicant files responses to Data Requests; Parties file Status Reports	07/15/13
Staff Assessment filed	08/15/13
Staff Assessment Workshop	08/30/13
Staff Assessment Comment Period Closes; Parties file Status Reports	09/03/13
Supplemental Staff Assessment (if necessary)	10/01/13
Committee Hearing on the Staff Assessment	10/29/13*
Proposed Decision	12/03/13*
Final Decision Adoption Hearing	January 2014 Business Meeting*

*Estimated dates; the Bottle Rock Committee will determine this part of the schedule and written notice will be provided

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BOTTLE ROCK GEOTHERMAL POWER PLANT AMENDMENT

DOCKET NO. 79-AFC-4C

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(EST. 05/16/2013)

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After docketing, the Docket Unit will provide a copy to the persons listed below. Do not send copies of documents to these persons unless specifically directed to do so.

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DECLARATION OF SERVICE

I, Camille Remy Obad, declare that on May 28, 2013, I served and filed copies of the attached Bottle Rock Issue ID Report dated May 24, 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/.

The document has been sent to the other persons on the Service List above in the following manner:

(*Check one*)

For service 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 and personally delivered it or deposited it in the US mail with first class postage to those persons 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.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am over the age of 18 years.

Dated: 5/28/13