

<b>DOCKETED</b>	
<b>Docket Number:</b>	23-AFC-02
<b>Project Title:</b>	Elmore North Geothermal Project (ENGP)
<b>TN #:</b>	259521
<b>Document Title:</b>	Follow Up from Workshop Discussion, 2nd Request
<b>Description:</b>	Email follow up from workshop discussion regarding additional information needed, 2nd Request
<b>Filer:</b>	Marichka Haws
<b>Organization:</b>	California Energy Commission
<b>Submitter Role:</b>	Commission Staff
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**Subject:** CEC, Geothermal AFCs, follow up from workshop discussion regarding additional information needs, 2nd Request  
**Date:** Thursday, October 10, 2024 1:16:00 PM  
**Attachments:** [image001.png](#)

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Hi Jerry and Jon,

The CEC received written comments on the PSAs, as well as comments during workshops held in July and September 2024. CEC has determined that additional information is necessary to include in the Final Staff Assessment (FSA) to properly address the comments and concerns raised by Native American representatives, interveners, local and other agency representatives, and interested groups. Please provide responses to the following requests within 30 days so that staff can timely incorporate the information into the FSA. If you have any questions about these items, let us know. If we need to, we can meet with appropriate technical staff for clarification.

Thank you.

*Air Quality and Public Health:*

**Background:**

U.S. EPA 2017 *Guidelines on Air Quality Models* (40 CFR 51 Appendix W) recommend that individual sources located in the vicinity of the source(s) under consideration for emissions limits that are not adequately represented by ambient monitoring data be accounted for by explicitly modeling their emissions. The BHER geothermal projects would be adjacent to the projects listed below. The applicant used a qualitative approach to respond to comments on the PDOCs of the projects. Intervenors questioned the qualitative approach and requested an explicit modeling of the nearby sources (e.g. CURE comments on the PSA [TN# 258994]).

**Request:**

Please provide an explicit cumulative air quality modeling analysis (for PM<sub>2.5</sub> and H<sub>2</sub>S) and a cumulative health risk assessment to include the following projects:

1. The J.J. Elmore Power Plant with the Elmore North Geothermal Project
2. The Hudson Ranch Power Plant and the Energy Source Mineral ATLAS Project with the Morton Bay Geothermal Project
3. The Vulcan Power Plant and the Hoch (Del Ranch) Power Plant with the Black Rock Geothermal Project

*Biological Resources:*

**Background:**

Applicant comments on the PSA included edits to acres of impacts listed in Table 5.2-5 (Elmore

North, Morton Bay, Black Rock) and Table 5.2-6 (Elmore North, Black Rock).

**Request:**

4. Provide revised GIS data to support these changes or provide clarification on how these numbers were determined.
5. For Morton Bay, provide the GIS data for aquatic resource features, including temporary and permanent impacts.

*Alternatives:*

**Background:**

Informational needs for Alternatives, with overlap with Cultural and Tribal Cultural due to the need to identify potentially feasible ways to reduce potential impacts:

**Request:**

6. ENGP and BRGP
  1. Provide information on directional drilling, along with graphical illustrations for the drilling associated with ENGP and BRGP, similar to what was filed for MBGP (TN 256064).
7. BRGP
  - a. Provide updated plan view parcel map showing the parcel split into APNs 020-110-056 and 020-110-057 (previously APN 020-110-031). Please list surface ownership and mineral rights for the two new parcels.
  - b. Provide conceptual site plan and description for a technically feasible relocation of the proposed BRGP to either or both of those two parcels. Staff plans to add this as an offsite alternative for analysis in the FSA to reduce the project's impact on Obsidian Butte, a tribal cultural resource.
8. Project Description
  - c. Provide updated general arrangement figures showing the reoriented cooling towers for the three proposed projects, MBGP, ENGP, and BRGP.
  - d. Provide plan view map showing the discussed shift of the proposed BRGP site a little below the previously proposed site on the same parcel (APN 020-110-008) and any related relocations of offsite project components.
  - e. Provide updated version of Figure 2-3 "Applicant's Mineral Leases, BRGP" from the application, due to the parcel split that resulted in new APNs, -056 and -057.

*Water Resources:*

**Background:**

In the Preliminary Staff Assessment Technical and Mitigation Workshop of August 1, 2024, CEC staff asked if there were a level of mandatory water reduction imposed by IID that could affect power production at three BHER geothermal plants or result in plant shutdown. Samantha Neumeyer, on behalf of the applicant, stated that the answer to the question was complex and could not be easily answered at the time, but the applicant's staff would work on providing a range of likely scenarios.

**Request:**

9. Provide the range of likely scenarios regarding geothermal plant response to mandatory water reductions.

**Background:**

Section 5.11 of the application for the BHER projects recognize the existence of subsurface agricultural "tile drains" underlying the project sites that drain groundwater with accumulated salts that would prevent crop growth. The construction activities description in the application does not appear to address the removal or mitigation of these tile drains, which could affect the ground stability of not only the water resources related project elements such as the brine ponds, water supply ponds and onsite wastewater treatment systems, but power plant facilities as well.

**Request:**

10. Please provide details how the tile drains will be removed or mitigated during project construction to ensure the ground stability of project facilities.

*Land Use, Agriculture, and Forestry*

**Background:**

There was discussion at the PSA workshop(s) about additional information available regarding feasible options to satisfy COC LAND-3/MM LAND-3.

**Request:**

11. Please provide more specifics on the anticipated selected option/s for mitigation, along with an analysis of feasibility, and summarize any relevant research or discussion. Provide any records you have documenting consultations with the city or any land trusts on this issue.

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