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UAW's Comments on Preliminary Determination of Compliance

Additional submitted attachment is included below.



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Via E-Mail, U.S. Mail, and Docket No. 23-AFC-03

Jesus Ramirez
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Re: **United Automobile, Aerospace, and Agricultural Implement Workers of America's Comments on Preliminary Determination of Compliance for the Black Rock Geothermal Power Generation Plant**

Dear Mr. Ramirez:

We write on behalf of United Automobile, Aerospace, and Agricultural Implement Workers of America ("UAW") regarding the Imperial County Air Pollution Control District's ("Air District") decision to grant a preliminary determination of compliance ("PDOC") to Black Rock Geothermal, LLC ("Applicant"), an indirect, wholly owned subsidiary of BHE Renewables, LLC for the Black Rock Geothermal Power Project ("BRGP" or "Project").

For the reasons discussed below, the Air District must inform the California Energy Commission ("CEC") that a PDOC cannot be issued because the proposed Project would cause or contribute to exceedances of both state and federal ambient air quality standards ("AAQS") and result in significant, unmitigated health risks due to toxic air contaminant emissions. If the Air District makes significant changes to the PDOC in response to public comments, the revised PDOC must then be noticed again, and the public must have a full and fair opportunity to comment on the revisions.

I. Introduction

Black Rock Geothermal, LLC applied for an Application for Certification ("AFC") to the CEC from the Air District for the BRGP. In addition, and to facilitate the same project, it applied for an Authority to Construction/Permit to Operate ("ATC/PTO") from the Air District. The purpose of the BRGP is to provide power from a renewable geothermal source to meet the electric power needs of California. The Project has a design rating of 87 megawatts ("MW") of gross output, with an expected net output of approximately 77 MW. The Air District reviewed the application submitted by the Applicant and issued a PDOC for the Project.

When an AFC has been accepted by the Commission, the Air District must conduct a determination of compliance review, which is identical to what would be performed for an ATC/PTO application. (Imperial County Air Pollution Control District, Rule 207 New and Modified Stationary Source Review (last revised Sept. 11, 2018) [hereinafter “Rule 207”], available at <https://apcd.imperialcounty.org/wp-content/uploads/2020/01/1RULE207.pdf>.) Within 180 days of accepting an AFC as complete, the Air District must make a preliminary decision on whether the proposed power plant meets the requirements of this Rule and all other applicable District regulations and in the event of compliance, what permit conditions will be required. (Rule 207 D.4.e.1.) As discussed *infra*, the PDOC cannot lawfully issue, as it fails to demonstrate that the Project will not cause or contribute to exceedances of federal and state AAQS and fails to show that the Project’s air toxics emissions are insignificant, as required.

II. Statement of Interest

UAW is a party to the Project’s AFC proceeding before the CEC. UAW is one of the largest and most diverse unions in North America, with members in virtually every sector of the economy. UAW-represented workplaces range from multinational corporations, small manufacturers, and state and local governments to colleges and universities, hospitals, and private non-profit organizations. UAW has more than 400,000 active members and more than 580,000 retired members in the United States, Canada, and Puerto Rico. As relevant here, UAW Region 6 is comprised of local union affiliates with over 100,000 active and retired members in Alaska, Arizona, California, Hawai’i, Idaho, Nevada, Oregon, Utah, and Washington whose members’ environmental and economic interests are affected by the Project. UAW members live in communities surrounding the Project and will accordingly experience detrimental impacts if the Project is approved, constructed, and operated. UAW thus has an interest in minimizing the impacts of projects that would negatively impact the environment and in enforcing environmental laws to protect its members. Moreover, environmental degradation also impacts UAW members’ quality of life. UAW members increasingly live in geographic areas, including the Imperial Valley, most impacted by water restrictions, poor air quality, increased temperatures, hazardous waste storage, and their associated health outcomes.

The Project also affects UAW’s members’ longer term economic and environmental interests. UAW is committed to ensuring that the transition to a green economy is environmentally and socially sustainable. Negative environmental outcomes threaten UAW’s members’ current and future jobs by causing the depletion of natural resources necessary to their employment and/or restrictions on automobiles and their uses. For example, the negative impacts of fossil fuels and climate change are significantly changing the automobile industry and UAW’s members’ roles within it.

III. The Air District Has Failed to Comply with Various Aspects of State and Federal Law and Must Therefore Inform the CEC that a PDOC Cannot Lawfully Be Issued

The Air District's PDOC violates both state and federal law in several key ways, each of which must be addressed before the PDOC can lawfully be issued. Each of these issues are discussed in detail below.

a. The Air District Failed to Guarantee the Project Will Not Cause or Contribute to Exceedances of Applicable Ambient Air Quality Standards

When conducting its compliance review, the Air District must ensure that construction and operation of the Project will not interfere with the attainment or maintenance of both state and federal AAQS. (Rule 207 C.5.b.) Here, the PDOC issued by the Air District fails to comport with this mandate in four key ways.

First, the PDOC fails to account for the fact that the U.S. Environmental Protection Agency ("EPA") recently issued an updated and more stringent National Ambient Air Quality Standard ("NAAQS") for particulate matter size two-point-five microns or smaller ("PM2.5"). Rule 207 expressly prohibits the Air District from issuing a PDOC that does not prohibit emissions from a new emission unit from causing or worsening a violation of an AAQS, including NAAQS. (Rule 207.C.5.b.) As relevant here, on March 6, 2024, the EPA published a rule to strengthen the NAAQS for PM2.5. (89 Fed. Reg. 16202-406 (Mar. 6, 2024), available at <https://www.govinfo.gov/content/pkg/FR-2024-03-06/pdf/2024-02637.pdf>.) The EPA revised the level of primary annual PM2.5 from 12.0 µg/m³ to 9.0 µg/m³. (Id. at 16204-05.) Imperial County does not meet the revised annual primary PM2.5 standard. (U.S. Environmental Protection Agency, Fine Particle Concentrations for Counties with Monitors Based on Air Quality Data from 2020-2022 (Feb. 2022), available at https://www.epa.gov/system/files/documents/2024-02/table_annual-pm25-county-design-values-2020-2022-for-web.pdf.) This new, updated standard applies here pursuant to Rule 207.A.2.b since the new NAAQS will take effect on May 6, 2024. The Applicant's air emissions modelling demonstrates the Project will cause or contribute to violations of the new PM2.5 NAAQS. Specifically, the PDOC shows that the Project's maximum concentration of PM2.5 is 0.25 µg/m³ and the background concentration is 9.40 µg/m³, for a total concentration of 9.65 µg/m³, well above the new standard of 9.0 µg/m³. The Air District cannot issue a PDOC until the Applicant demonstrates that the Project complies with the revised annual PM2.5 standard.

Second, the PDOC unlawfully relies on inaccurate data to inform its emissions models. Section F.1.a. of Rule 207 requires that any air quality models used to estimate the effects of a new emissions unit be consistent with the requirements contained in the most recent edition of EPA's "Guidelines on Air Quality Models" ("Guidelines"), which direct regulators to use meteorological data that is both spatially and climatologically representative of the background conditions at the proposed project. (40 C.F.R. Pt. 51; see also 82 Fed. Reg. 5182-235 (Jan. 17, 2017).) Yet, here, the emissions modelling utilized to estimate that the Project's impacts on pollutant concentrations in the ambient air utilized five (5) years of data collected at the Imperial

County Airport, which is approximately twenty-five (25) miles from the proposed Project site. This data is therefore not representative of the conditions at the Project site. Instead, data from the Sonny Bono monitoring station should be used because it is the best representation of the conditions that will exist during Project operation since it's less than five (5) miles from the Project site. Without using accurate data to calculate background air quality conditions, neither the Applicant nor the Air District can in good faith assert that the Project will not result in violations of AAQS.

Third, the Air District fails to fulfill its obligation to determine whether the Project will cause or contribute to violations of the California Ambient Air Quality Standard (“CAAQS”) for hydrogen sulfide. The current CAAQS for hydrogen sulfide is 0.03 parts per million (42 $\mu\text{g}/\text{m}^3$). Per the PDOC, even with the implementation of control technologies, the Project will emit hydrogen sulfide at a concentration of approximately 25.2 $\mu\text{g}/\text{m}^3$. However, because the Imperial Valley is listed as “unclassified” for the hydrogen sulfide CAAQS and therefore does not have current background monitoring information for hydrogen sulfide, the Air District never calculated whether the added hydrogen sulfide to be emitted by the Project will push the ambient air in the surrounding region above the 42 $\mu\text{g}/\text{m}^3$ threshold. Lack of available background monitoring data, while unfortunate, does not excuse the Air District of its obligation to determine whether the proposed Project will cause or contribute to an exceedance of the hydrogen sulfide CAAQS before issuing a final determination on compliance with applicable standards. Since the Air District has not done so to date, it cannot lawfully issue a PDOC at present.

Fourth, the PDOC fails to account for the significant likelihood that the Applicant will propose amending this Project to extract usable lithium in addition to producing geothermal energy. It is well known within the industry that Berkshire Hathaway (the owner of BRGP LLC) plans to modify its geothermal power plants in the Salton Sea area to also extract lithium. (See, e.g., Ernest Scheyder, *Insight: U.S. steps away from flagship lithium project with Buffett's Berkshire* (October 5, 2022), Reuters, available at <https://www.reuters.com/markets/us/us-steps-away-flagship-lithium-project-with-berkshire-2022-10-05/>.) The Air District and Applicant must therefore account for the likely emissions associated with adding lithium extraction facilities to the proposed Project. The PDOC fails to do this, and therefore fails to adequately account for all of the Project's likely air emissions.

b. The Air District Failed to Prevent the Project from Emitting Unlawful Amounts of Toxic Air Contaminants

The PDOC admits the Project will emit sufficient emissions of toxic air contaminants to exceed relevant regulatory thresholds for the maximally exposed individual worker (“MEIW”) and “point of maximum impact” (“PMI”) for both the chronic and acute hazard index (“HI”). As required by Health & Safety Code Section 44340, the Applicant submitted a Health Risk Assessment (“HRA”) to the Air District. Because the Air District has not formally adopted health risk thresholds, the Applicant analyzed health risks based on those established by South Coast Air Quality Management District (“SCAQMD”). In accordance with the SCAQMD

thresholds, the Air District may only approve the permit request and issue the PDOC if all of the following conditions are met:

- The maximum individual cancer risk is less than one in one million at any receptor location if the permit unit is constructed without the application of “best available control technology for toxics” (or “T-BACT”) *or* if the maximum individual cancer risk is less than 10 in one million if the permit unit is constructed with T-BACT;
- The total chronic hazard index is less than 1.0;
- The total acute hazard index is less than 1.0; and
- The cancer burden is less than 0.5.

(South Coast Air Quality Management District, Rule 1401. New Source Review of Toxic Air Contaminants (Sept. 1, 2017) (hereinafter “SCAQMD Rule 1401”), *available at* <https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1401.pdf>.)

The Project does not meet these conditions. The Applicant’s modeling shows the Project’s non-cancer chronic and acute health risks exceed the 1.0 thresholds for both the MEIW and PMI. This is significant because the Applicant’s air modeling for air toxics likely underestimates the risks posed by the Project, since it relies on the same meteorological data from the Imperial County Airport discussed above, which are not representative of the ambient air conditions at the Project site. Given that a primary driver for the acute health risk impacts is hydrogen sulfide emissions associated with the cooling tower operations, and the cooling tower is already set to install emission controls for hydrogen sulfide, it’s clear that more is needed to prevent the unlawful exceedances of the non-cancer chronic and acute health risk thresholds for the MEIW and PMI. The Air District must address this deficiency before issuing the PDOC and must inform the CEC that the PDOC cannot lawfully issue until these air toxics exceedances are meaningfully addressed.

c. The Air District Failed to Account for the Cumulative Impacts Associated with the Proposed Project

The PDOC fails to account for the likely significant cumulative air emissions associated with the Project and nearby, like projects and proposed projects. The Guidelines referenced above direct that individual sources located in the vicinity of other sources under consideration for emissions limits that are not adequately represented by ambient monitoring data be accounted for by explicitly modeling their emissions. (40 C.F.R. Pt. 51, App. W § 8.3.1.) For multiple-source areas, such as the case here, the Guidelines recommend determining the appropriate background concentration by identifying and characterizing contributions from nearby sources and representative ambient monitoring data. (*Id.* § 8.3.1.3.) Yet, here, the air quality modelling did not include any nearby sources despite the fact that there are many nearby geothermal energy sources that emit in largely the same manner as would the proposed Project and there are several other projects (proposed by the Applicant) that would add to that emission load. Without accounting for the emissions associated with these projects, the air quality monitoring for this PDOC cannot assure the Air District (and nearby residents) that the proposed Project will not cause or contribute to AAQS.

IV. Conclusion

For the aforementioned reasons, the Air District cannot lawfully issue the PDOC or permit here. The Air District must consequently inform the CEC that it cannot issue the PDOC at this time, until the deficiencies discussed above are addressed and mitigated. Until that time, issuing the PDOC violates relevant state and federal laws and regulations for the reasons discussed *supra*.

Respectfully,



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