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JMA Comments on PSAs for MBGP, ENGP, & BRGP

Additional submitted attachment is included below.

September 4, 2024

Via E-Mail, U.S. Mail and Electronic Filing

California Energy Commission
715 P. Street
Sacramento, CA 95814

Re: Jobs to Move America's Comments on Preliminary Staff Assessments for the Morton Bay Geothermal Project (Docket 23-AFC-01), Elmore North Geothermal Project (Docket 23-AFC-02), and Black Rock Geothermal Project (Docket 23-AFC-03)

To the California Energy Commission,

Jobs to Move America ("JMA") submits these comments on the recently issued Preliminary Staff Assessments ("PSAs") for the Morton Bay Geothermal Project ("MBGP"), Elmore North Geothermal Project ("ENGP"), and Black Rock Geothermal Project ("BRGP") (each a "Project" and collectively, the "Projects"). All three Projects are indirect, wholly owned subsidiaries of BHE Renewables, LLC ("Applicant"). Pursuant to Commissioner Gallardo's July 26, 2024 Joint Order Extending and Consolidating Public Comment Periods on Preliminary Staff Assessments, JMA submits these comments jointly on the MBGP, ENGP, and BRGP PSAs.

For the reasons discussed in these comments, and in the comments submitted by intervenor United Automobile, Aerospace, and Agricultural Implement Workers of America ("UAW"),[1] all three of the PSAs fail to conform to mandates established by the California Environmental Quality Act ("CEQA"), the Warren-Alquist Act, and the implementing regulations. Until the issues described below are addressed and remedied, the California Energy Commission may not lawfully issue an Application for Certification ("AFC") authorizing the Applicant to construct and operate the Projects.

Statement of Interest

JMA is a strategic policy center that works to transform public spending and corporate behavior using a comprehensive approach that is rooted in racial, environmental, and economic justice and community organizing. We seek to advance a fair and prosperous economy with good jobs and healthier communities for all. JMA believes that economic opportunity and environmental safeguards go hand in hand, and that the key to both is robust, meaningful participation in planning processes by members of the communities directly affected.

[1] JMA joins in full the comments submitted by UAW.

JMA works in coalition with labor organizations, churches, and other community organizations in the Imperial Valley to identify the economic and environmental issues of most concern. The three Projects at issue will have an outsized impact on the health and safety of the surrounding communities.

COMMENTS

I. All Three PSAs Fail to Adequately Address the Risks to Worker Safety Posed by the Respective Projects.

The PSAs do not adequately analyze or mitigate the admittedly significant worker-safety issues that exist, both during the construction phase and as part of ongoing operations.

In evaluating the PSAs, the CEC is required to analyze and, where necessary, propose adequate mitigation of health and safety risks posed by the Projects. Cal. Pub. Res. Code §25523(a), (d). In preparing the PSAs, staff was required to assess the adequacy of the measures proposed by the applicant to ensure the safety and reliability of the Projects. 20 C.C.R. §1742(b). In addition, and separately, staff is required to assess "the measures planned by the applicant to comply with all applicable federal, state, regional, and local laws, regulations, standards, and plans[.]" 20 C.C.R. §1744(a); see *ibid.* ("Such information shall not duplicate information contained in environmental, safety and reliability, and air quality sections of the application."). In other words, it is not enough that the Applicant propose to follow existing health and safety laws. Staff is required to make an independent assessment of whether the mitigation measures that Applicant proposes adequately address health and safety impacts.

In addition, the Warren-Alquist Act and implementing regulations required that "[u]pon acceptance of the application …, staff shall consult with local, state and federal agencies with special expertise or interest in … safety … matters related to the application." 20 C.C.R. §1742(a); see also Cal. Pub. Res. Code §25519(g) ("The commission shall transmit a copy of the application to each federal and state agency having jurisdiction or special interest in matters pertinent to the proposed site and related facilities and to the Attorney General."); *id.* at §25519(k). In this regard, staff was required to provide a copy of the PSAs and seek comments and recommendations from "all federal, state, regional, and local agencies which have jurisdiction over the proposed site and related facility" and "to any other federal, state, regional, or local agency which has been identified as having a potential interest in the proposed site and related facility[.]" 20 C.C.R. §1714(c).

A. Staff Failed to Notify or Seek the Recommendations of the Agency Responsible for Occupational Safety and Health.

The PSAs recognize that California Occupational Safety & Health Administration ("Cal OSHA") is the state agency responsible for occupational safety and health issues at the Projects, both during the construction phase and as part of ongoing operations. ENGP PSA, at 4.4-2. Yet staff failed to provide copies of the PSAs to Cal OSHA or to solicit analysis or recommendations from the agency. See ENGP PSA, Appendix E. Instead, evaluation of worker-safety issues was apparently conducted solely by a CEC Supervising Mechanical Engineer. It is unclear what, if any, expertise this individual has with worker safety issues, and the PSAs do not disclose *any* sources that the staff reviewer consulted in coming to conclusions about the adequacy of the Applicant's proposed worker-safety mitigation measures.

Staff's failure to provide copies of the PSAs to Cal OSHA or to solicit recommendations from the state agency with jurisdiction over safety and health issues at the Projects violated the Warren-Alquist Act and implementing regulations.

B. The PSAs Do Not Adequately Address Worker-Safety Risks.

The PSAs recognize that the Projects "are potentially dangerous during construction, commissioning, and operation of facilities." ENGP PSA, at 4.4-3. Indeed, the United States Department of Labor's Occupational Safety and Health Administration ("OSHA") has a website dedicated to the worker safety hazards associated with geothermal energy production, and cites incidents of severe burns and loss of consciousness due to hydrogen sulfide exposure as prevalent hazards in geothermal energy worksites.[2]

More specifically, staff acknowledges that "accidents, fires, and two worker deaths have occurred at CEC-certified power plants in the past due to the failure to recognize and control safety hazards and the inability to adequately supervise compliance with occupational safety and health regulations." ENGP PSA, at 4.4-9. The PSAs fail to reveal that in 2023, OSHA issued the Applicant, operating as CalEnergy, a citation for a "Gravity 10" violation—the most serious type of violation "such as those situations involving danger of death or extremely serious injury or illness"—at its geothermal facility located at 6922 Crummer Road in Calipatria.[3]

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[2] Occupational Safety & Health Administration, Green Job Hazards: Geo-Thermal Energy, available at: https://www.osha.gov/green-jobs/geo-thermal.

[3] Occupational Safety & Health Administration, Violation Detail, available at: https://www.osha.gov/ords/imis/establishment.violation_detail?id=1630280.015&citation_id=02001

The PSAs Fail to Address the Lack of Nearby EMS Providers

The PSAs fail to adequately address the lack of nearby emergency response providers. The PSAs recognize that the Projects would be served by the Calipatria Fire Department ("CFD") and the Imperial County Fire Department, and that the CFD's lone station is approximately 6 or 7 miles southeast of the Projects, with a response time to an emergency at the Project sites of approximately 15 to 20 minutes. The PSAs identify EMS response times that more than double the national average. "Longer EMS response times have been associated with worse outcomes in trauma patients[]" and in some "emergent conditions (e.g., cardiopulmonary arrest, severe bleeding, and airway occlusion), even modest delays can be life threatening."[4]

The PSA's only acknowledgment of this problem is in a section entitled "Emergency Medical Services Response." That section states that CEC has conducted a statewide survey "to determine the frequency of emergency medical services (EMS) response and offsite fire-fighter response for power plants in California" in order "to determine what impact, if any, power plants may have on local emergency services." ENGP, at 4.4-12.

But the impact of power plants on overall demand for EMS in a community is a different question from the impact that a lack of nearby EMS providers *has on worker safety at the Projects.* The PSAs only address *this* question by proposing that the Projects have an on-site automatic external defibrillator ("AED") to address instances of cardiac arrest. The PSAs do not analyze or propose mitigation for the impact that the lack of nearby EMS providers might have on outcomes from other categories of emergent conditions, such as severe burns and pulmonary edema related to hydrogen sulfide poisoning.[5] The PSAs are therefore inadequate in both their analysis and their proposed mitigation measures.

The PSAs Improperly Defer Worker Safety Mitigation Measures

"'It is improper to defer the formulation of mitigation measures until after project approval; instead, the determination of whether a project will have significant environmental impacts, and the formulation of measures to mitigate those impacts, must occur *before* the project is approved.' [Citation.]" (*Oakland Heritage Alliance v. City of Oakland*, 195 Cal.App.4th 884, 906 (2011); see also CEQA Guidelines, § 15126.4, subd. (a)(1)(B) ("Formulation of mitigation measures shall not be deferred until some future

[4] Howard K. Mell, MD, MPH, CPE et al., "Emergency Medical Services Response Times in Rural, Suburban, and Urban Areas" *JAMA Surg.* 2017;152(10):983-984.

[5] See Occupational Safety & Health Administration, Green Job Hazards: Geo-Thermal Energy, available at: https://www.osha.gov/green-jobs/geo-thermal

time."). A limited exception to this general rule applies "when three elements are satisfied. First, practical considerations prevented the formulation of mitigations measures at the usual time in the planning process. Second, the agency *committed* itself to formulating the mitigation measures in the future. Third, the agency *adopted specific performance criteria* that the mitigation measures were required to satisfy." *POET, LLC v. State Air Res. Bd.*, 218 Cal. App. 4th 681, 736 (2013) (emphasis in original); CEQA Guidelines, §15126.4(a)(1)(B).

The PSAs do not meet this standard. The PSAs propose a mitigation measure entitled Worker Safety-1, which requires the Applicant to prepare a "Project Construction Health and Safety Program" and submit that to the CEC just 30 days prior to commencing construction. ENGP PSA, at 4.4-14. This Health and Safety Program consists of seven sub-programs: Construction Personal Protective Equipment Program; Construction Exposure Monitoring Program; Construction Injury and Illness Prevention Program; Construction Drilling and Construction of Wells Safety Program; Construction Emergency Action Plan; Heat Illness Prevention Program; and Construction Fire Prevention Plan. ENGP PSA, at 4.4-14.

Clearly, thirty days is insufficient time for a thorough analysis of the proposed programs. But regardless, there is no practical consideration that prevents formulation and submission of the programs during the approval process, nor has CEC staff proposed any specific performance criteria by which the Worker Safety-1 would be measured against. It simply defers formulation, submission and approval of these mitigation measures until just before construction commences.

Similarly, the PSAs' mitigation measure "Worker Safety-2" defers the Applicant's formulation of a "Project Operations and Maintenance Safety and Health Program" until 30 days prior to the Projects becoming operational. ENGP PSA, at 4.4-14-15. Like Worker Safety-1, Worker Safety-2 will comprise a series of seven sub-programs and plans (Operation Injury and Illness Prevention Plan; Emergency Action Plan; Hazardous Materials Management Program; Fire Prevention Plan; Fire Protection System Impairment Program; Heat Illness Prevention Program; and Personal Protective Equipment Program).

Several of these programmatic areas will require substantial analysis. For example, California only recently (and subsequent to the PSAs' publication) adopted Indoor Heat Illness Prevention standards. See 8 C.C.R. §3396. The standards apply to indoor work areas that exceed 82 degrees in temperature, and require the formulation of an Indoor Heat Illness Prevention Plan that includes procedures for providing drinking water, cool-down areas, preventative rest periods, close observation during acclimatization, assessment and measurement of heat, training, prompt emergency response, and feasible control measures. The PSAs make no mention of this standard

and do not direct the Applicant to propose an Indoor Health Illness Prevention Plan. See ENGP PSA, at 4.4-5, 4.4.-14-15.

Nor do the PSAs provide any specific criteria on how the Applicant will be required to formulate an *effective and enforceable* worker-safety program for ongoing operations. In Worker Safety-3, the PSAs propose to require that the Applicant "provide a site Construction Safety Supervisor (CSS) who, by way of training and/or experience, is knowledgeable of power plant construction activities" and who will monitor compliance with construction-safety programs. ENGP PSA, at 4.4-15. Confusingly, the PSAs state that the "Construction Safety Supervisor" will "ensure that the plans identified in . . . Worker Safety-2 are implemented." But Worker Safety-2 proposes the formulation of worker-safety measures for ongoing operations and maintenance, something that the CSS will not be required to have training, experience or knowledge of. See ENGP PSA, at 4.4-15.

The PSAs provide no guidelines or measures for how safety and health plans for ongoing operations and maintenance will be formulated or monitored. For example, OSHA recommends that "[t]o be effective, any safety and health program needs the meaningful participation of workers and their representatives."[6] This requires "encourag[ing] [workers] to participate in the program and feel comfortable providing input and reporting safety or health concerns"; giving workers "access to information they need to participate effectively in the program"; giving workers "opportunities to participate in all phases of program design and implementation"; and ensuring that workers "[d]o not experience retaliation when they raise safety and health concerns; report injuries, illnesses, and hazards; participate in the program; or exercise safety and health rights." See also, e.g., 29 CFR 1910.119(c)(2) ("Employers shall consult with employees and their representatives on the conduct and development of process hazards analyses and on the development of the other elements of process safety management in this standard.").

Yet despite the consensus that active involvement of workers and labor unions improves the formulation and monitoring of safety and health plans, the PSAs contain no analysis of the subject and no guidelines directing the Applicant to do so. The PSAs' unlawful deferral of specific worker-safety mitigation measures until after approval shields those measures from public review and comment (as well as that of Cal OSHA).

In other words, the "solution was not to defer the specification and adoption of mitigation measures until a year after Project approval; but, rather, to defer approval of the Project until proposed mitigation measures were fully developed, clearly defined, and

[6] Occupational Safety & Health Administration, "Recommended Practices for Safety and Health Programs: Worker Participation" available at: https://www.osha.gov/safety-management/worker-participation.

made available to the public and interested agencies for review and comment." *Communities for a Better Env't v. City of Richmond*, 184 Cal. App. 4th 70, 95 (2010).

II. The PSAs Do Not Accurately Describe the Project and Fail to Sufficiently Address Cumulative Impacts.

The PSAs take a blinkered approach to both the Projects' description and to cumulative-impact analysis.

A. The PSAs Definition of the Projects Results in Improper Piecemealing.

The PSAs' definition of the Projects ignores the fact that the Applicant has already announced, and taken affirmative steps toward, utilizing the Projects to extract lithium from the Salton Sea. See *Plan. & Conservation League v. Dep't of Water Res.*, 98 Cal. App. 5th 726, 752 (2024) "[T]here may be improper piecemealing when the purpose of the activity at issue is to be the first step or to provide a catalyst toward future development.").

"Environmental review of a project under CEQA must encompass the whole of an action affecting the environment." *Plan. & Conservation League*, 98 Cal. App. 5th at 751; CEQA Guidelines, §15378(a). This means a lead agency may not chop "a large project into many little ones – each with a minimal potential impact on the environment – which cumulatively may have disastrous consequences." *Rio Vista Farm Bureau Center v. County of Solano*, 5 Cal.App.4th 351, 370 (1992). To avoid unlawful piecemealing, an EIR must include an analysis of the environmental effects of future expansion or other action that: (1) is a reasonably foreseeable consequence of the initial project and (2) will likely change the scope or nature of the initial project or its environmental effects. *Laurel Heights Improvement Assn. v. Regents of Univ. of California*, 47 Cal. 3d 376, 396 (1988); *E. Sacramento Partnerships for a Livable City v. City of Sacramento*, 5 Cal. App. 5th 281, 293 (2016) (CEQA prohibits "[t]he process of attempting to avoid a full environmental review by splitting a project into several smaller projects which appear more innocuous than the total planned project.").

The PSAs limit the definition of the Projects to "a geothermal electric power generating facility … fitted with one steam turbine generator … consisting of a condensing turbine generator set with three steam entry pressures." ENGP PSA, at 3-1. But the Applicant has made clear that it intends to engage in direct lithium extraction ("DLE") from geothermal sites approved in Imperial County.

On June 4, 2024, the Applicant announced a joint venture with TerraLithium to use DLE and associated technologies to extract and commercially produce lithium

compounds from geothermal brine at Applicant's "geothermal power plants in California's Imperial Valley."[7] Applicant has already received a Notice of Exemption from the Imperial County Planning and Development Services for DLE at its geothermal facility at 6922 Crummer Road in Calipatria.[8] And the California Alternative Energy and Advanced Transportation Financing Authority awarded Applicant a sales and use tax exemption for "new Lithium Recovery and Processing Facility" using geothermal brine in Calipatria.[9] The Applicant's planned expansion of DLE at its geothermal sites in Imperial Valley is part of the Lithium Valley Specific Plan that would open much of the County (particularly the area surrounding the proposed Projects) to lithium extraction and battery production. See Imperial County Planning & Development Services Department, *Notice of Preparation for Lithium Valley Specific Plan and Programmatic Environmental Impact Report Project* (Dec. 21, 2023).

In short, it is "reasonably foreseeable consequence" of the Projects that the Applicant will use them for DLE. In fact, the Applicant has already announced its intention to do so, entered into a joint venture to operationalize this intent, and received state tax exemptions based on its plans.

DLE operations at the site of the Projects will impact the Projects' environmental impacts. For example, recently approved EIRs for DLE projects in the Imperial Valley demonstrate that they are significant users of fresh water. DLE under the EnergySource Minerals Project ATLiS EIR is expected to use up to a total of 102,112 AF for 32 years of operation (or 3191 AFY).[10] Controlled Thermal Resources' Hell's Kitchen project is expected to use up to 299,960 AF over 50 years (or 6,000 AFY).[11]

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[7] BHE Renewables, "Occidental and BHE Renewables Form Joint Venture to Commercialize TerraLithium Extraction Technology" (June 4, 2024), available at: https://www.bherenewables.com/news/customers/occidental-and-bhe-renewables-form-joint-venture--to-commercialize-terralithium-extraction-technology.

[8] ICPDS Notice of Exemption. https://www.icpds.com/assets/IS24-0014-CalEnergy--NOE-WEB-06.07.24-1.pdf

[9] CAEATFA STE. https://www.treasurer.ca.gov/caeatfa/meeting/2022/20220621/staff/4a1.pdf

[10] EnergySource Minerals DEIR. https://www.icpds.com/assets/Energy-Source-Mineral-ATLiS-Project-DEIR-.pdf

[11] CTR EIR. https://files.ceqanet.opr.ca.gov/277330-3/attachment/kwHBZD0vEqiE1tK17Qi-2fB-qph5ETh541IqnDAuzEtlNhoIcEMRj_g4Q8paMoUcB5yJrr7OAIHJSIDr0

By failing to define the Projects to include the reasonably foreseeable use of the Project sites for DLE, a use that will have considerable environmental impact, the PSAs violate CEQA and the Warren-Alquist Act. *Laurel Heights*, 47 Cal. 3d at 396.

B. The PSAs' Cumulative Impact Analysis Improperly Omits the Lithium Valley Specific Plan and the Salton Sea Management Plan.

"The significance of a comprehensive cumulative impacts evaluation is stressed in CEQA." *Schoen v. Department of Forestry & Fire Protection,* 58 Cal.App.4th 556, 572 (1997). Proper cumulative impact analysis is vital "because the full environmental impact of a proposed project cannot be gauged in a vacuum. One of the most important environmental lessons that has been learned is that environmental damage often occurs incrementally from a variety of small sources. These sources appear insignificant when considered individually, but assume threatening dimensions when considered collectively with other sources with which they interact." *Communities for a Better Environment v. California Resources Agency*, 103 Cal.App.4th 98, 114 (2002); *Las Virgenes Homeowners Federation, Inc. v. County of Los Angeles*,177 Cal.App.3d 300, 306 (1986) ("[C]onsideration of the effects of a project or projects as if no others existed would encourage the piecemeal approval of several projects that, taken together, could overwhelm the natural environment and disastrously overburden the man-made infrastructure and vital community services. This would effectively defeat CEQA's mandate to review the actual effect of the projects upon the environment."); *Bakersfield Citizens for Loc. Control v. City of Bakersfield*, 124 Cal. App. 4th 1184, 1214–15 (2004).

While CEQA permits the use of either the list method or projections method to determine cumulative impact (or a combination of both), in either case "the analysis should include 'all sources of related impacts, not simply similar sources or projects.'" *League to Save Lake Tahoe Mountain etc. v. Cnty. of Placer*, 75 Cal. App. 5th 63, 150 (2022) (quoting *City of Long Beach v. Los Angeles Unified School Dist.*, 176 Cal.App.4th 889, 907 (2009)); see CEQA Guidelines, § 15130(b)(4), (5).

The PSAs adopt a list approach to cumulative impact. ENGP PSA, at 1-7. While permissible under the Guidelines, the approach "'is often attacked as underinclusive.'" *League to Save Lake Tahoe Mountain etc. v. Cnty. of Placer*, 75 Cal. App. 5th at 149 (quoting Kostka & Zischke, PRACTICE UNDER THE CAL. ENVIRONMENTAL QUALITY ACT (2d ed. CEB) § 13.42). Use of the list method does not excuse a lead agency from determining whether it is "reasonable and practical to include the omitted projects and whether their exclusion prevented the severity and significance of the cumulative impacts from being accurately reflected." *Bakersfield Citizens for Loc. Control v. City of Bakersfield*, 124 Cal. App. 4th 1184, 1215 (2004); see *Kings County Farm Bureau v. City of Hanford*, 221 Cal.App.3d 692, 723 (1990) (limiting the scope of cumulative impacts analysis was unduly

restrictive and resulted in an inaccurate minimization of the cumulative impacts on air quality by excluding many other foreseeable energy projects throughout San Joaquin Valley).

In addition to the three Projects, the PSAs list the Hell's Kitchen and Energy Source Material ATLiS DLE projects, expansion of an existing geothermal power plant at Geo Hudson Ranch, and several solar-power projects. They recognize that even this limited list of projects will have a cumulatively significant impact on the environment. ENGP PSA, at 5.1-35, 5.2-138. But the PSAs do not address the impact of development under the Lithium Valley Specific Plan, which will guide the "development and permitting of additional renewable energy facilities, mineral recovery, lithium battery manufacturing, and other renewable industries within an approximately 51,786-acre area adjacent to the Salton Sea." The Lithium Valley Specific Plan "aims to facilitate the existing and future renewable energy development, lithium extraction, associated infrastructure, commercial, and related manufacturing industries investment" in this area.

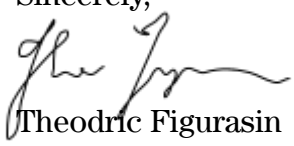
The Lithium Valley Specific Plan foresees the development of an additional 121 million square feet of green industrial, manufacturing, renewables, and logistics buildings, as well as an additional 60,000 residents in the Specific Plan area. The Specific Plan estimates the eventual use of 93,000 AFY in water consumption, dwarfing the PSAs' assessment of available non-agricultural water resources. See ENGP PSA, at 5.16-13; Imperial County Planning & Development Services, Public Scoping Meeting for the Lithium Valley Specific Plan Program EIR (Dec. 14, 2023).

Omitting any consideration of planned development under the Lithium Valley Specific Plan makes the PSAs' cumulative impact analysis underinclusive and inaccurate.

Conclusion

JMA looks forward to the opportunity to work with CEC staff and the Applicant to develop a thorough evaluation of the Projects' impacts and meaningful mitigation measure that will allow surrounding communities to enjoy good, safe jobs and a healthy environment. However, until the PSAs are amended to address the comments set forth above, and in the comments submitted by Intervenor UAW, the AFCs must be denied.

Sincerely,



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