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Docket Number:	20-LITHIUM-01
Project Title:	Lithium Valley Commission
TN #:	242726
Document Title:	Preliminary Environmental Impact Findings and Recommendations for Discussion and Consideration
Description:	Proposed Findings and Recommendations regarding the March 24, 2022 Environmental Impact Workshop to be discussed at the April 28, 2022 Lithium Valley Commission meeting.
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Submitter Role:	Commission Staff
Submission Date:	4/20/2022 12:11:55 PM
Docketed Date:	4/20/2022

Preliminary Proposed Environmental Impact Findings and Recommendations for Discussion and Consideration by the Lithium Valley Commission

Following are proposed preliminary findings and recommendations compiled by the California Energy Commission (CEC) staff based on the presentations and discussions from the March 24, 2022, public meeting, for Lithium Valley Commission (LVC) consideration, refinement, and discussion.

Proposed Preliminary Findings:

- A. Geothermal development in Imperial County has a lengthy history and the natural resources in the underground geothermal reservoir offer opportunities for more geothermal development, related lithium extraction, and battery manufacturing.
- B. Existing and new geothermal power plants in Imperial County, as well as lithium extraction facilities, will require permitting by the applicable permitting agency, which may include local agencies such as Imperial County and state agencies such as the California Energy Commission.
- C. Subject to exceptions created in the statute, the Energy Commission has exclusive licensing jurisdiction over thermal power plants with a generating capacity of 50 MW or more. The exceptions allow counties, like Imperial County, to license such plants if specific substantive and procedural requirements are met.
- D. The California Environmental Quality Act (CEQA) generally requires public agencies to review the environmental impacts of proposed projects, and, if those impacts may be significant, to consider feasible alternatives and mitigation measures that would substantially reduce significant adverse environmental effects. Generally, CEQA applies to discretionary projects proposed to be carried out or approved by local and state agencies, including activities that involve the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies (Public Resources Code section 21065).
- E. The CEQA Guidelines (Title 14, Division 6, Chapter 3 of the California Code of Regulations) are administrative regulations governing implementation of CEQA. The CEQA Guidelines reflect the requirements set forth in the Public Resources Code (PRC), as well as court decisions interpreting the CEQA statutes and practical planning considerations. Among other things, the CEQA Guidelines explain how to determine whether an activity is subject to environmental review, what steps are involved in the environmental review process, and the required content of environmental documents. The CEQA Guidelines apply to public agencies throughout the state, including local governments, special districts, and state agencies.
- F. The term "project" under CEQA means: (a) an activity directly undertaken by any public agency, (b) an activity undertaken by a person which is supported, in whole or in part, through contracts, grants, subsidies, loans, or other forms of assistance from one or more public agencies, and (c) an activity that involves the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.

- G. Regardless of who the local or state permitting entity is, a proposed geothermal power plant or lithium extraction facility will be subject to environmental review under CEQA if it meets certain requirements and is not explicitly exempted from CEQA.
- H. CEQA includes requirements that the public must have opportunities to review and comment on environmental documents and decision making. However, representatives from the communities in the Salton Sea region have voiced the need for more deliberate and expansive efforts to engage the public in the review of proposed projects.
- I. The review of projects under CEQA requires an evaluation of topics, as identified and further described in the CEQA Guidelines (PRC section 21000, et seq.). The topics required to be considered include, but are not limited to:
- Aesthetics
 - Biological Resources
 - Geology/Soils
 - Hydrology/Water Quality
 - Noise
 - Recreation
 - Utilities/Service Systems
 - Agriculture and Forestry Resources
 - Cultural Resources
 - Greenhouse Gas Emissions
 - Land Use/Planning
 - Population/Housing
 - Transportation/Traffic
 - Wildfire
 - Air Quality
 - Energy
 - Hazards & Hazardous Materials
 - Mineral Resources
 - Public Services
 - Mandatory Findings of Significance
 - Tribal Cultural Resources
- J. While the topics to be considered and the processes conducted under CEQA are intended to support a robust review of proposed projects, not all potential topics or considerations are required to be reviewed. Specific to the Lithium Valley Commission discussion and during the March 24, 2022, LVC workshop, Health Impact Assessments are a critical concern for the communities in the Salton Sea region that will not necessarily be considered when completing CEQA studies and documents for projects that seek to recover lithium from geothermal brine or projects developing new and expanded geothermal energy facilities.
- K. The CEQA process offers an opportunity to expand evaluations and should be considered the floor and not the ceiling when it comes to ensuring the review of project impacts and provides a transparent and inclusive process for community participation.
- L. Currently, three developers are planning or developing projects to recover lithium from geothermal brine at existing and planned geothermal power plants in the Salton Sea region:
- BHE Renewables is currently developing a demonstration stage lithium recovery facility using brine from existing geothermal power plants. BHE Renewables is planning to develop three commercial scale lithium facilities within the area of its 10 existing geothermal power plants. In addition, BHE Renewables plans to build new plants to expand its geothermal production and lithium extraction capacity.

Controlled Thermal Resources (CTR), is in the permitting phase for the development of the Hell's Kitchen Lithium and 49.9 MW Geothermal Power Project which will be built as an integrated lithium recovery and geothermal power facility. CTR anticipates expanding the initial facility in additional phases.

EnergySource Project ATLiS, Mineral Recovery facility, co-located at the John L. Featherstone Geothermal Facility, is currently in construction.

- M. The environmental impact report and local permitting documentation prepared for the EnergySource Minerals ATLiS project offer a reference for activities and processes completed by Imperial County for its issuance of a conditional use permit for the ATLiS project to co-locate a facility to recover lithium from geothermal brine development at a site with an existing geothermal power plant.
- N. The current and historical context of the community is critical for permitting agencies to take into account for future geothermal and lithium related development projects. Eastern Coachella and Imperial Valley have historically presented poor health outcomes and have a high rate of emergency department visits due to asthma and other air pollution-related conditions. The rates of hospitalization have been 50 percent – 100 percent higher for asthma in the area compared to statewide averages – the estimated numbers consider both sexes and all ages/races.
- O. Additionally, the Coachella Valley and Northern Salton Sea have a high poverty rate. Census tracts along the northern part of the Salton Sea have a poverty rate higher or equal to 20 percent. Local and regional income levels traditionally have direct connections to health issues and outcomes.
- P. Health Impact Assessments can provide a framework to determine the potential positive and negative effects of a development project on human health and help identify how these impacts might be distributed throughout the population.
- Q. Health Impact Assessments evaluate the potential health effects of a plan, project, or policy before it is built or implemented. They bring potential positive and negative public health impacts and considerations to the decision-making process for plans, projects, and policies that fall outside traditional public health arenas, such as transportation and land use. A Health Impact Assessment can provide practical recommendations to increase positive health effects and minimize negative health effects.
- R. There are four elements of environmental justice: no group of people should bear a disproportionate share of negative environmental impacts; meaningful involvement of local communities should be included in the development, implementation, and impact mitigation processes of proposed and approved projects; both technical and experience-based knowledge of local communities should be respected; and actions should be advanced to build thriving, healthy, equitable, sustainable, and prosperous communities.

Proposed Preliminary Recommendations:

1. When evaluating the impacts associated with any new lithium recovery facility and related processing and manufacturing projects, developers should be encouraged or required to include Health Impact Assessments and to better address disproportionate impacts and

environmental justice issues. The legislature should enact legislation to require developers to complete Health Impact Assessments and explore mitigation for identified impacts. Requirements should further ensure opportunities for transparency and community inclusion. Health Impact Assessments offer another opportunity for the community to further engage in the process of understanding the projects that are being proposed and consider the environmental justice principles.

2. The State Legislature should allocate funding to conduct initial and periodic Health Impact Assessments as part of planning and ongoing monitoring for Lithium Valley development. Potential parties to manage this funding could be an appropriate state or local agency or local groups overseen by a public agency. Any legislation creating funding for Health Impact Assessments shall also mandate inclusion of local community groups.
3. Project developers in the Lithium Valley should be required to adhere to pollution prevention, toxic use reduction, precautionary principles, and best management practices.
4. The CEQA review for individual projects, large Master Plans, or a Programmatic CEQA review, should consider the baseline of the existing resources and the direct, indirect, and cumulative impacts of these projects, including the growth they may induce, such as increased traffic, transmission needs, housing needs, and other impacts.
5. Robust and community specific outreach is needed to ensure affected communities including but not limited to people living in Imperial Valley, eastern Coachella Valley, and California Native American Tribes are consulted in a meaningful way during project permitting, development, operations, and decommissioning. Parties must plan for and ensure that the community, public, and environmental groups are engaged throughout the environmental review and development process and throughout the life of the geothermal lithium and related projects.
6. In order to ensure public participation, the legislature should develop legislation mandating that the lead agency identified for each proposed project in the Lithium Valley must provide documents in translated versions, to ensure participation and transparency for the local community.
7. Community Benefits Agreements support positive public health outcomes. The legislature should mandate that project developers create legally binding Community Benefits Agreements (CBAs) bringing together public entities, private entities, and community signatories, and develop long-term lifecycle/long-term assurance systems that monitor and enforce best practices for CBAs.
8. Consideration of geothermal lithium extraction for the Lithium Valley should include a product lifecycle approach, including end-of-life recycling/reuse processes (cradle to cradle). The legislature should enact legislation that requires permitting agencies and the lead agencies identified for CEQA require project developers to include lifecycle considerations in project studies and analyses completed for Lithium Valley geothermal and lithium extraction projects.