

PMC-ND

(1.08.09.13)

**U.S. DEPARTMENT OF ENERGY
OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY
NEPA DETERMINATION**



RECIPIENT: BHER Minerals, LLC

STATE: CA

PROJECT TITLE: Electrolytic Production of Battery-Grade LiOH•H₂O from Geothermal Brine

| Funding Opportunity Announcement Number | Procurement Instrument Number | NEPA Control Number | CID Number |
|---|-------------------------------|---------------------|------------|
| DE-FOA-0002322 | DE-EE0009431 | GFO-0009431-001 | GO9431 |

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

A9 Information gathering, analysis, and dissemination Information gathering (including, but not limited to, literature surveys, inventories, site visits, and audits), data analysis (including, but not limited to, computer modeling), document preparation (including, but not limited to, conceptual design, feasibility studies, and analytical energy supply and demand studies), and information dissemination (including, but not limited to, document publication and distribution, and classroom training and informational programs), but not including site characterization or environmental monitoring. (See also B3.1 of appendix B to this subpart.)

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to BHER Minerals, LLC to demonstrate the ability to produce lithium hydroxide monohydrate from lithium chloride extracted from geothermal brine at purity levels acceptable for use in battery manufacturing. Proposed project activities include engineering, permitting, procurement and contractor selection, construction, commissioning, training and safety planning, technoeconomic analysis, operations, data collection and validation activities. Commercial scale design, engineering, and technology transfer would also be conducted. Project activities are divided into two budget periods (BP) with a Go/No Go Decision Point between the BPs. Project work would occur at an existing geothermal facility in Calipatria, California. This demonstration project would be connected to a lithium recovery demonstration project that is currently under construction at the geothermal facility.

This NEPA review is limited to initial BP1 project activities such as design, engineering, permitting, technoeconomic analysis, coordination, and technology transfer planning. These tasks are limited to intellectual, academic, or analytical activities that will help to define the remaining project tasks. There is insufficient information available at this time to complete a thorough review of all project tasks. Additional NEPA review will be required once the remaining project activities are further defined.

NEPA PROVISION

DOE has made a conditional NEPA determination.

The NEPA Determination applies to the following Topic Areas, Budget Periods, and/or tasks:

Budget Period 1 tasks and subtasks as listed below:

- Task 1.0 Engineering and Permitting
- Subtask 2.1 LHD Procurement Plan
- Task 5.0 Technoeconomic Analysis
- Task 6.0 Critical Materials RD&D Coordination
- Task 7.0 Lithium RD&D Coordination
- Task 8.0 Technology Transfer

The NEPA Determination does not apply to the following Topic Area, Budget Periods, and/or tasks:

Budget Period 1 tasks and subtasks as listed below:

- Subtask 2.2 Procurement
- Subtask 2.3 Equipment Testing and Acceptance
- Task 3.0 Construction and Commissioning
- Task 4.0 Training and Safety Planning

All Budget Period 2 tasks and subtasks

Notes:

Advanced Manufacturing Office
This NEPA determination requires a tailored NEPA provision.

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal.

The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

A portion of the proposed action is categorically excluded from further NEPA review. The NEPA Provision identifies Topic Areas, Budget Periods, tasks, and/or subtasks that are subject to additional NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:

 Electronically Signed By: **Casey Strickland**
NEPA Compliance Officer

Date: 6/7/2021

FIELD OFFICE MANAGER DETERMINATION

- Field Office Manager review not required
- Field Office Manager review required

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature:

Field Office Manager

Date: _____