

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



**RECIPIENT:** Mojave Energy Systems, Inc

**STATE:** SC

**PROJECT TITLE:** Manufacturing and Deployment of Liquid Desiccant Dehumidifier with Multiple Regeneration Technologies

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0002864	DE-EE0011039	GFO-0011039-001	GO11039

**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.)

**B3.6 Small-scale research and development, laboratory operations, and pilot projects**

Siting, construction, modification, operation, and decommissioning of facilities for smallscale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to Mojave Energy Systems, Inc. (Mojave) to design, develop, fabricate, and field test advanced air conditioning equipment. The award activities would result in the development of a manufacturing facility (and associated workforce development) and pilot deployment to five field sites to demonstrate capability.

This project would be implemented over two Budget Periods (BPs). Budget Period 1 would consist of manufacturing design, design testing, and manufacturing plant build-out . Budget Period 2 would consist of unit manufacturing and field testing at yet to be determined field sites. At this time, there is insufficient information to review BP2 activities. As such, this NEPA determination (ND) applies only to Task 1 and activities listed under BP1. An additional NEPA review would be required for all activities listed under BP 2.

Task 1 is separate from defined Budget Periods and involves overall project management and planning and will occur throughout the life of the project. Budget Period 1 Task 2 involves design work, fabricating prototype air conditioning units and laboratory-based pilot testing. Design and development activities would happen at Mojave headquarters in Sunnyvale, California; fabrication activities would occur at a Mojave manufacturing facility in Anderson, South Carolina; pilot testing would occur at the National Renewable Energy Laboratory (NREL) in Golden, Colorado. Task 3 involves administrative tasks along with identifying a manufacturing facility for future build-out and production. Leasing of the manufacturing facility (Subtask 3.3) in Anderson, South Carolina, is complete.

Project activities would involve the use and handling of hazardous materials such as lithium chloride. Handling, storage, and disposal of hazardous materials would occur within controlled settings and would follow existing policies and procedures. Existing corporate health and safety policies and procedures would be followed, including employee training, proper protective equipment, engineering controls, monitoring, and internal assessments. Additional policies and procedures would be implemented as necessary as new health and safety risks are identified. Mojave would observe all applicable federal, state, and local health, safety, and environmental regulations.

All project work would be performed at existing, purpose-built laboratory facilities. Task 3 would require build out of manufacturing facility, expanding the existing electric capacity through instillation of upgraded electric panels, hookups, and associated infrastructure. No other modifications to existing facilities, ground disturbing activities, or changes to the use, mission, or operation of existing facilities would be required. DOE does not anticipate any impacts

to resources of concern due to the proposed award activities.

Any work proposed to be conducted at a federal facility may be subject to additional NEPA review by the cognizant federal official and must meet the applicable health and safety requirements of the facility.

**NEPA PROVISION**

DOE has made a conditional NEPA determination.

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

Tasks 1,2, & 3 (including all subtasks)

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

Tasks 4 & 5 (including all subtasks)

Notes:

Building Technologies Office (BTO)  
NEPA review completed by Jason Spencer, 01/12/2024.

**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:  \_\_\_\_\_ Date: 1/17/2024  
NEPA Compliance Officer

**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: \_\_\_\_\_ Date: \_\_\_\_\_