

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



RECIPIENT: Premier Resource Management, LLC

STATE: CA

PROJECT TITLE: Daily and Seasonal Storage for CST using Geological Thermal Energy Storage: Pilot Plant and Techno-Economic Analysis

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0003080	DE-EE0011495	GFO-0011495-001	GO11495

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.)
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Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Premier Resource Management, LLC (PRM) to design, develop, and construct a geological thermal energy storage (GeoTES) pilot plant in Antelope Hills, an area west of Bakersfield, California. The GeoTES pilot plant would test the viability of using solar troughs to heat water, injecting and storing the heated water into a suitable reservoir using an injection well, and using the water at a later time for industrial processes or electricity. The pilot plant would use depleted oil fields on leased private lands. The proposed award would occur over three Budget Periods (BP) spanning three years.

This NEPA Determination (ND) only applies to BP1, which would include techno-economic and risk analyses and validation, engineering design and studies, cost estimates and bid specifications, project management and procurement planning, scheduling, full bid specifications, community benefits analysis and permit compliance plans. This ND does not apply to BPs 2 or 3, which would consist of detailed project design, materials procurement and manufacturing, budget estimates, acquiring permits, securing contracts, developing advanced techno-economic models, site preparation, well drilling, solar trough construction, injection and operations testing, cost and economic potential analysis, customer acquisition, end-of-project community workshops and a comprehensive project analysis and reporting.

Construction of the GeoTES pilot plant may require consultations under Section 106 of the National Historic Preservation Act of 1966, as amended, and Section 7 of the Endangered Species Act. DOE would complete additional NEPA review and necessary consultations prior to BPs 2 and 3.

There would be no anticipated hazards associated with BP1, as all activities would involve planning and design and would occur at existing, purpose-built facilities. No change in the use, mission, or operation of existing facilities would arise out of this effort.

Any and all permits required for the execution of the project at the above-referenced locations would be the responsibility of the recipient .

DOE has considered the scale, duration, and nature of the proposed activities to determine potential impacts on resources, including those of an ecological, historical, cultural, and socioeconomic nature. DOE does not anticipate impacts on these resources which would be considered significant or require DOE to consult with other agencies or stakeholders.

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

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

- Budget Period 2
- Budget Period 3

Include the following condition in the financial assistance agreement:

Any and all permits required for the execution of the project at the above-referenced locations would be the responsibility of the recipient and must be attained before the permit-pertinent work can commence.

Notes:

Solar Energy Technologies Office
NEPA review completed by Brittany White, 10/23/2024

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:

 Electronically Signed By: Andrew Montano
NEPA Compliance Officer

Date: 10/25/2024

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: _____