PMC-EF2a

(2.04.02)

U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION

RECIPIENT: El Paso County **STATE:** TX

PROJECT TITLE: El Paso County Geothermal Project at Ft. Bliss

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000109	DE-EE0002827	GFO-10-277	0

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

CX, EA, EIS APPENDIX AND NUMBER:

Description:

A9 Information gathering (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring.

B3.6 Siting, construction (or modification), operation, and decommissioning of facilities for indoor bench-scale research projects and conventional laboratory operations (for example, preparation of chemical standards and sample analysis); small-scale research and development projects; and small-scale pilot projects (generally less than two years) conducted to verify a concept before demonstration actions. Construction (or modification) will be within or contiguous to an already developed area (where active utilities and currently used roads are readily accessible).

B3.1 Onsite and offsite site characterization and environmental monitoring, including siting, construction (or modification), operation, and dismantlement or closing (abandonment) of characterization and monitoring devices and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis. Activities covered include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. Specific activities include, but are not limited to:

B5.1 Actions to conserve energy, demonstrate potential energy conservation, and promote energy-efficiency that do not increase the indoor concentrations of potentially harmful substances. These actions may involve financial and technical assistance to individuals (such as builders, owners, consultants, designers), organizations (such as utilities), and state and local governments. Covered actions include, but are not limited to: programmed lowering of thermostat settings, placement of timers on hot water heaters, installation of solar hot water systems, installation of efficient lighting, improvements in generator efficiency and appliance efficiency ratings, development of energy-efficient manufacturing or industrial practices, and small-scale conservation and renewable energy research and development and pilot projects. The actions could involve building renovations or new structures in commercial, residential, agricultural, or industrial sectors. These actions do not include rulemakings, standard-settings, or proposed DOE legislation.

Rational for determination:

El Paso County (EPC) would evaluate the commercial viability of low temperature geothermal resources in the McGregor test area (or other less known sites) on the Fort Bliss Military Reservation (Fort Bliss) to determine if those resources have adequate temperatures, flow rates and volume to justify commercial development at any scale with an eye toward 20 MW as a target. If the resource is adequate EPC would determine where production facilities could be located for the production of power, as well as if, and how, such facilities could be used to power the McGregor Range installation and how such power could be returned to the grid for use by Fort Bliss.

The project is divided into three phases with multiple tasks and sub-tasks.

Phase 1 – Exploration

1. Geologic Characterization – sub-tasks (1.1 and 1.2) include literature/data review of existing well data and reports, and multispectral data analysis using ASTER data.
2. Gravimetry – detailed gravity survey of the final geothermal prospect.
3. Thermal Gradient Survey - temperature gradient wells would be sited and drilled using the results of Task 1 and the results of this effort would be compiled into a GIS database.
4. Mercury Survey – soil samples would be collected for mercury analysis.
5. Data Integration and Geologic Model Development
6. Integrated Wellbore Chemostratigraphic-Chronostratigraphic Evaluation of existing samples from previously drilled area wells.

Phase 2 – Slimhole Drilling

1. Slimhole Drilling – sub-tasks (1.1 through 1.4) include permitting and site access, drilling of two slim holes, collecting geologic cores and data from the drilling, and sampling and logging of cores/cuttings.

Phase 3 – Resource Testing and Assessment

1. Well Testing – sub-tasks (1.1 through 1.4) include logging, water chemistry, flow testing, and evaluation by an

independent expert.
2. Chemostratigraphic-Chronostratigraphic Analysis and Correlation
3. Final Project Assessment
4. Project Management and Reporting – reports and other deliverables would be provided in accordance with the Federal Assistance Reporting Checklist following the instruction included therein.

All laboratory work would be completed by the Energy and Geoscience Institute at the University of Utah. According to the R&D Laboratory Questionnaire, safety standards meet or exceed OSHA requirements. No air pollutants would be created. Liquid effluent and toxic wastes are stored in specially designated plastic bottles and transferred to the University's Waste Management Program for disposal according to state waste-management protocols.

According to the McGregor Range Record of Decision and Resource Management Plan Amendment (May 2006) for the Las Cruces District Office of the Bureau of Land Management, the NEPA Compliance Lead Agency for Resource Decisions dealing with Military Activity on Withdrawn Lands or Army Fee-Owned Lands is Fort Bliss. Since the goal of this project is the characterization and development of geothermal resources to produce power that would be used by the McGregor Range installation and Fort Bliss, the project is classified as Military Activity. Therefore, the NEPA Compliance Lead Agency for this project is Fort Bliss. According to phone conversations with Vicki Hamilton and John Barrera from the Directorate of the Environment at Fort Bliss, a Record of Environmental Consideration (REC) will be written for all exploratory work proposed (all Phases and Tasks in this project). The REC is based on previous exploratory work done in the same area as this project and NEPA documentation in which the project area was previously analyzed, included an EA completed in 1996.

This project is comprised of information gathering, data analysis, and document preparation; onsite site characterization activities; conventional laboratory operations; and actions to conserve energy through small-scale renewable energy research and development; therefore the DOE has categorized this proposal into Categorical Exclusions A9, B3.1, B3.6, and B5.1.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

The REC from Fort Bliss should be completed before any surface disturbing activities begin.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: PBN Date: 4/21/10

NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

☐ Field Office Manager review required

NCO REQUESTS THE FIELD OFFICE MANAGER REVIEW FOR THE FOLLOWING REASON:

☐ Proposed action fits within a categorical exclusion but involves a high profile or controversial issue that warrants Field Office Manager's attention.
☐ Proposed action falls within an EA or EIS category and therefore requires Field Office Manager's review and determination.

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

Field Office Manager's Signature: _____ Date: _____

Field Office Manager