

PMC-EF2a

(2.04.02)

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



RECIPIENT: Beowawe Power, LLC

STATE: NV

PROJECT
TITLE : Beowawe Bottoming Binary Project

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000109	DE-EE0002856	GFO-10-192	GOO

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.
- 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.
- B5.2** Modifications to oil, gas, and geothermal facility pump and piping configurations, manifolds, metering systems, and other instrumentation that would not change design process flow rates or affect permitted air emissions.

Rational for determination:

Beowawe Power, LLC (BPL) would install a 1.5-MWe binary Organic Rankine Cycle (ORC) in the existing 16-MWe Beowawe Geothermal Power Plant located in northern Nevada that would utilize low temperature/pressure brine to produce additional power before being re-injected back into the geothermal reservoir. The ORC would use the tail-water from the existing power generation unit to allow for an additional use of the geothermal fluid prior to re-injection. There would be no additional use of geothermal resource fluid from the reservoir beyond current levels.

The project is divided into three phases with multiple tasks:

Phase 1 – Feasibility Study and Engineering Design

Tasks 1 through 3 would consist of a feasibility study; obtaining the needed construction, operating, and water right permits; and engineering design work for interface with the existing power plant. A Go – No Go review would be conducted at the end of Phase 1.

Phase 2 – Procurement, Installation, and Commissioning of Equipment

Tasks 4 through 6 would consist of awarding the binary plant contract; contract administration and installation of equipment on-site; and commissioning, staff training, and performance testing of the equipment. A Go – No Go review would be conducted at the end of Phase 2.

Phase 3 – Operation and Maintenance (O&M)

Tasks 7 through 10 would consist of plant maintenance; collection and reporting of non-proprietary operating and maintenance data; and project management and reporting. Reports and other deliverables will be provided in accordance with the Federal Assistance Reporting checklist following the instructions included therein.

An Environmental Assessment (EA# N66-EA5-19), Decision Record, and FONSI were completed by the Bureau of Land Management (BLM) for the existing power plant in 1985. All of the proposed project work would occur on previously disturbed land within the existing plant boundary.

According to the R&D Laboratory Questionnaire, no lab work would be needed for the project. Environmental Health and Safety (EH&S) standards are in place at the plant and there are four full-time EH&S professionals supporting operations: an EH&S Director, Senior Environmental Coordinator, Safety Coordinator, and an Environmental Coordinator. The ORC would be a closed loop system, so no liquid effluent would be associated with the project. No toxic waste or air pollutants would be associated with the project.

This project is comprised of information gathering, data analysis, document preparation, actions to conserve energy through small-scale renewable energy research and development, and modification to piping at an existing geothermal facility; therefore the DOE has categorized this proposal into Categorical Exclusions A9, B5.1 and B5.2.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

A permit modification to the existing Class 2 air operating permit would need to be obtained from the Nevada Department of Environmental Protection.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: 
NEPA Compliance Officer

Date: 4/1/10

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: _____
Field Office Manager

Date: _____