

PMC-EF2a

(2.04.02)

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



RECIPIENT: Nevada State Office of Energy

STATE: NV

PROJECT TITLE : SEP - Renewable Energy and Energy Efficiency Revolving Loan Program - Berken Energy

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000052	DE-EE-0000084	GFO-0000084-009	EE84

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:

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:

Berken Energy is proposing to use \$1,700,000 in SEP funding to place their GeoThermoVoltaic® heat-exchanger systems on existing geothermal injection wells. The Berken systems increase energy efficiency by pulling more energy out of the used, lower temperature water leaving the power plant as it flows to the injection wells. The Berken heat exchanger systems will be affixed to and/or on-top of the geothermal wells on cement pads and integrated to capture the heat energy. The concrete pads are already in-place and no new excavation or concrete pads will be needed. There will be no ground disturbance related to the installation of the Berken Energy GeoThermoVoltaic® heat-exchanger systems. All aspects of the proposed project will occur at the Clean Energy Rail Center (CERC), a 1,000 acre green energy and manufacturing industrial park 10 miles to the east of Fernley, NV. The surrounding area consists of a rail line, a highway and open desert made up of Bureau of Reclamation and state-owned land. The GeoThermoVoltaic® heat-exchangers deployed will introduce zero emissions as there will be no contact with effluent, air handling or generator equipment. The product design is specific to avoidance of any introduction of contaminants to the closed loop of the geothermal fluid system. The Berken technology is deployed in close proximity to the return water piping and is not in any way included in the closed loop system of fluid movement that is used to generate electricity from the geothermal resource.

DOE is aware that the proposed Berken Energy project is part of a larger scope of work that includes construction of a geothermal power plant. The power plant project is being completed regardless of Berken Energy's participation in the project per the attached documentation from the land owner. SEP funding of Berken Energy will comprise less than one percent of the total project costs for the geothermal development.

After a thorough review of the information submitted, DOE has determined that there will be no significant impacts to human health and/or environment due to the actions involved with the proposed project; therefore it is categorically excluded under CX B5.1 "actions to conserve energy" from further NEPA review.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

Note to Specialist :

EF2a completed by Logan Sholar

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____


NEPA Compliance Officer

Date: _____

11/19/10

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: _____