

PMC-ND
(1.08.09.13)

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



RECIPIENT: Pagosa Verde LLC

STATE: CO

PROJECT TITLE : Recovery Act: Direct Confirmation of Commercial Geothermal Resources in Colorado using Remote Sensing and On-Site Exploration, Testing and Analysis

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-EE0002828	GFO-0002828-003	GO2828

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, 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.)

B3.1 Site characterization and environmental monitoring

Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) 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). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer and underground reservoir response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes); (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

Rationale for determination:

Pagosa Verde LLC (Pagosa) would utilize DOE and cost share funding to collect and compile geothermal resource data and analyses of an exploration area at Pagosa Springs, Colorado in anticipation of developing a geothermal resource. This award (DE-EE0002828) was transferred from Flint Geothermal LLC (Flint) to Pagosa as an award novation. Two previous NEPA Determinations (GFO-0002828-001 and -002) were completed in 2010 and 2011 for the project when it was with Flint Geothermal. Now with the project novation to Pagosa, the original project scope, location, and budget have all been changed and a new NEPA Determination is required.

The project is divided into three Phases with Phase I being split into Phase I A and I B to distinguish award work done under Flint (Phase I A) and award work proposed by Pagosa moving forward (Phase I B). Phase I B includes only water sample collection from existing wells, data compilation, and permitting/scheduling activities. Phase II activities include fieldwork such as temperature gradient (TG) well drilling and geophysical testing followed by exploration well drilling (if TG data indicates a useable resource). Phase III includes only data analysis, report writing, and data submittal. There are Go/No Go decision points after Phase I B and the TG well drilling in Phase II. This NEPA Determination is for Phase I B and Phase III.

The proposed project area for Phase II activities contains habitat for both the endangered Pagosa Skyrocket and the proposed endangered New Mexico Meadow Jumping Mouse. A biological survey is needed to determine if these species are present and if so to determine their extent. Until the biological survey and consultation with U.S. Fish and

Wildlife Service are completed, exact locations of drilling and geophysical activities are unknown because the anticipated work locations may need to be moved to avoid these species. Once Phase II field locations have been determined, further NEPA Determination(s) will be required for those activities.

Based on review of the project information, DOE has determined that Phase I B and Phase III project activities would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined that Phase I B and Phase III activities are consistent with actions contained in DOE categorical exclusions A9 "Information gathering, analysis, and dissemination," and B3.1 "Site characterization and environmental monitoring," and are categorically excluded from further NEPA review.

NEPA PROVISION

DOE has made a conditional NEPA determination for this award, and funding for certain tasks under this award is contingent upon the final NEPA determination.

Insert the following language in the award:

You are restricted from taking any action using federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE/NNSA providing either a NEPA clearance or a final NEPA decision regarding the project.

Prohibited actions include:

Phase II

This restriction does not preclude you from:

Phase I B

Phase III

If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

Note to Specialist :

This NEPA Determination requires a tailored NEPA provision.

Casey Strickland 06/05/2014

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  Date: 06/10/2014
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