

PMC-ND
(1.08.09.13)

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



RECIPIENT: Washington State Department of Natural Resources

STATE: WA

PROJECT TITLE : Washington Geothermal Play-Fairway Analysis Budget Period 3

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-EE000841	DE-EE0006728	GFO-0006728-002	G06728

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.)

A11 Technical advice and assistance to organizations Technical advice and planning assistance to international, national, state, and local organizations.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to Washington State Department of Natural Resources to address the overarching theme of uncertainty quantification and reduction for geothermal exploration, specifically through the development of Geothermal Play Fairways. Phase/Budget Period 1 of the Geothermal Play Fairway Analysis FOA was reviewed by GFO-FOA0000841-001 on July 31, 2014. A subsequent NEPA Determination (GFO-0006728-001; CX A9, B3.1; March 4, 2016) reviewed Budget Period 2 activities. This NEPA Determination is for Budget Period 3 (BP3) activities.

Budget Period 1 and 2 activities of this award have led to the anticipated drilling of temperature gradient wells that will be funded separately from this award. These drilling activities are part of the projects selected under the Geothermal Play Fairway Analysis FOA. To minimize drilling risks, establish operational consistency across awards, and ensure recipients have a qualified drilling contractor, the drilling activities will be conducted by the United States Geological Survey (USGS). Funding for the drilling activities will be paid directly to USGS by DOE; however, those costs are still considered part of the project and therefore subject to NEPA. These drilling activities would not occur without the project activities proposed under this award. While this award does not include funding for drilling of the temperature gradient wells, the locations for where drilling would occur, activities necessary to permit the wells, analysis of well data, and site reclamation after drilling is completed are all under the control of, and are the responsibility of, Washington State Department of Natural Resources. Because of the above, temperature gradient well drilling is a connected action to the proposed project activities being funded under this award and, therefore, the drilling and its associated impacts will be reviewed as part of this award. Initial project work planned in Budget Period 3 will define drill locations and required drilling activities, so there is insufficient data available at this time to complete a thorough review of the anticipated drilling activities (Tasks 17-21) and any potential associated impacts. These activities (Tasks 17-21) will be reviewed once drilling is fully defined.

Proposed BP3 activities associated with Tasks 12-16 and 22-23 would include: outreach and coordination with private landowners and the U.S. Forest Service; site visits; permitting; data analysis, integration and submission; computer modeling; and project planning, management, and reporting.

Excluding drilling-related tasks, BP3 activities would be limited to intellectual and analytical activities including site visits for the purpose of documentation (photographs and note taking). No site characterization activities such as geophysical surveys, monitoring, or operation of field instruments would take place. Each site selected for consideration during BP2 of the project would be visited and visually evaluated for its suitability for potential drilling operations. Visits would be conducted at over 13 sites located in the Mount St. Helens (private land) and Mount Baker

(National Forest Land) study areas within the Washington State Geothermal Play Fairway region of analysis.

Based on the review of the proposal, DOE has determined Tasks 12-16 and 22-23 in Budget Period 3 fit within the class of action(s) selected above. DOE has also determined that: (1) there are no extraordinary circumstances (as defined by 10 CFR 1021.410(2)) related to the proposal that may affect the significance of the environmental effects of the proposal; (2) the proposal has not been segmented to meet the definition of a categorical exclusion; and (3) the proposal is not connected to other actions with potentially significant impacts, related to other proposals with cumulatively significant actions, or an improper interim action Tasks 12-16 and 22-23 in Budget Period 3 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:

- Task 17: Drill Temperature-Gradient Holes
- Task 18: Detailed Core and Image-Log Analysis
- Task 19: Log Temperatures at Drill Sites
- Task 20: Plug and Abandon Holes
- Task 21: Process New Data and Refine Models

This restriction does not preclude you from:

- Task 12: Confirm Land Access
- Task 13: Site Visits
- Task 14: Prepare and Submit Permits
- Task 15: Provide Data to USGS for PFA Comparison
- Task 16: Provide Drill Site Recommendations and Planning to USGS/DOE
- Task 22: Reporting
- Task 23: Data Submission

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 :

Geothermal Technologies Office
This NEPA determination requires a tailored NEPA Provision.
NEPA review completed by Whitney Doss, 08/25/2017

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  Casey Strickland  Date: 8/28/2017
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