

PMC-ND

(1.08.09.13)

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



RECIPIENT: Various

STATE: CO

PROJECT TITLE: FOA: Machine Learning for Geothermal Energy

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001956		GFO-FOA0001956-001	

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), 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:

As part of Funding Opportunity Announcement (FOA) DE-FOA-0001956, the U.S. Department of Energy (DOE) is soliciting applications that will develop new analytical tools for finding and developing geothermal resources and establish the practice of machine learning in geothermal operations. This FOA addresses the following two Topic Areas of interest:

Topic 1: Machine Learning for Geothermal Exploration

Topic 2: Advanced Analytics for Efficiency and Automation in Geothermal Operations

DOE has reviewed the descriptions of each Topic Area, and concluded that this NEPA Determination will apply only to Budget Period (BP) 1 of projects awarded under Topic 1. All projects awarded under Topic 2 will require separate NEPA review. This is because the FOA specifically limits the scope of work to be performed during BP1 of projects awarded under Topic 1 to desktop analysis of existing datasets (activities associated with this exclusive subset of DE-FOA-0001956 funding are reviewed below). Field work may be approved for BP2; therefore, these projects will require additional, separate NEPA Determinations at that time. Before advancing beyond BP1, each project funded under Topic 1 must submit individual Environmental Questionnaires (EQ-1s) detailing proposed BP2 activities.

Federal funding provided by DOE to successful applicants to Topic Area 1 would support the application of machine learning algorithms and analytics to existing geophysical, geological, and geochemical datasets. During BP1 of these awards, all projects would consist solely of intellectual, academic, and/or analytical activities, such as paper studies, data analysis, computer modeling, document preparation, data dissemination, and training. It is anticipated that BP1 activities would be conducted from existing offices or computational facilities and use no materials beyond basic office supplies, software, and computer hardware.

Any work proposed to be conducted at a DOE laboratory may be subject to additional NEPA review by the cognizant DOE NEPA Compliance Officer for the specific DOE laboratory prior to initiating such work. Further, any work conducted at a DOE laboratory must meet the laboratory's health and safety requirements.

Based on the review of the FOA document, DOE has determined that Budget Period 1 of all projects selected under

Topic Area 1 of DE-FOA-0001956 will 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. Budget Period 1 of all projects selected by DOE for funding under Topic Area 1 of DE-FOA-0001956 are categorically excluded from further NEPA review.

NEPA PROVISION

DOE has made a conditional NEPA determination.

The NEPA Determination applies to the following Topic Areas, Budget Periods, and/or tasks:

Budget Period 1 of all projects funded under Topic Area 1.

The NEPA Determination does not apply to the following Topic Area, Budget Periods, and/or tasks:

Budget Period 2 of all projects funded under Topic Area 1 of Funding Opportunity Announcement (FOA) DE-FOA-0001956.

All projects funded under Topic Area 2 of Funding Opportunity Announcement (FOA) DE-FOA-0001956.

Include the following condition in the financial assistance agreement:

Any work proposed to be conducted at a DOE laboratory may be subject to additional NEPA review by the cognizant DOE NEPA Compliance Officer for the specific DOE laboratory prior to initiating such work. Further, any work conducted at a DOE laboratory must meet the laboratory's health and safety requirements.

Notes:

Geothermal Technologies Office

This NEPA determination requires a tailored NEPA Provision.

NEPA review completed by Whitney Doss, 07/30/2018

This NEPA Determination applies ONLY to Budget Period 1 of awards selected under Topic Area 1 of Funding Opportunity Announcement (FOA) DE-FOA-0001956. This NEPA Determination does NOT apply to Budget Period 2 of awards selected under Topic Area 1 or any awards selected under Topic Area 2, which will require individual NEPA review. Before advancing beyond Budget Period 1, each project funded under Topic Area 1 is required to submit individual Environmental Questionnaires (EQ-1s) detailing proposed Budget Period 2 activities. Separate NEPA Determinations will be required for each of those projects at that time.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____



Casey Strickland

NEPA Compliance Officer

Date: 7/30/2018

FIELD OFFICE MANAGER DETERMINATION

- Field Office Manager review not required
 Field Office Manager review required

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

Field Office Manager's Signature: _____

Field Office Manager

Date: _____