

PMC-ND

(1.08.09.13)

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

**RECIPIENT:**HRF - Oregon State University**STATE:** OR**PROJECT TITLE**
: Hydro Research Foundation University Research Awards

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-EE0006506	GFO-0006506-202	GO6506

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.
- B3.6 Small-scale research and development, laboratory operations, and pilot projects** Siting, construction, modification, operation, and decommissioning of facilities for smallscale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide federal funding to the Hydro Research Foundation (HRF) to award grants to individual research projects through its University Research Awards Program to support innovative research related to conventional or pumped-storage hydropower, stimulate interest among students and universities in this research arena, and provide students with a foundation for productive careers related to the hydropower industry.

DOE completed a previous NEPA review (GFO-0002668-002 CX A9, A11 3/23/2015) that included development of a Hydro Fellowship Program that would competitively award grants for hydropower-related, graduate-level research projects for one- to two-year periods of study. This NEPA determination applies to activities associated with one of the projects which has been selected to receive a grant award from the HRF.

The awardee at Oregon State University (OSU) would use HRF grant funding provided by the DOE to directly advance the progression of the hydropower industry towards new stream reach projects by building a robust developers guide for several key synchronous and variable speed topologies, and will further be able to quantify both the cost per kilowatt installed as well as the expected levelized cost of energy (LCOE) under both synchronous and variable speed operation. Proposed activities undertaken towards this goal would include the modeling and implementation of various generator models for run-of-river conditions. Modeling and hardware implementation activities would occur at the Wallace high-voltage lab facility on campus at OSU in Corvallis, Oregon.

The facility in which lab work would occur is purpose-built for the type of activities being proposed; therefore, no adverse impacts to sensitive resources are expected as a result of the proposed project. No change in the use, mission or operation of existing facilities would arise out of this effort. The facility has all applicable permits in place, and would not need additional permits for the proposed activities. No materials would be used and no waste would be

generated as a result of the proposed project and existing University safety and health policies would be observed during all in-lab testing activities.

Based on review of the project information and the above analysis, DOE has determined the activities associated with the proposed project would not have a significant individual or cumulative impact to human health and/or environment. DOE has determined the proposed project is consistent with actions contained in DOE categorical exclusions A9 "Information gathering, analysis, and dissemination", A11 "Technical advice and assistance to organizations" and B3.6 "Small-scale research and development, laboratory operations, and pilot projects" and is categorically excluded from further NEPA review.

NEPA PROVISION

DOE has made a final NEPA determination for this award

Insert the following language in the award:

If the Recipient intends to make changes to the scope or objective of this project, the Recipient is required to contact the Project Officer, identified in Block 15 of the Assistance Agreement before proceeding. The Recipient must receive notification of approval from the DOE Contracting Officer prior to commencing with work beyond that currently approved. If the Recipient moves forward with activities that are not authorized for Federal funding by the DOE Contracting Officer in advance of a final NEPA decision, the Recipient is doing so at risk of not receiving Federal funding and such costs may not be recognized as allowable cost share.

Note to Specialist :

Water Power Program

This NEPA Determination does NOT require a tailored NEPA provision.
NEPA review completed by Rebecca McCord, 5/16/16

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:



Electronically Signed By: Kristin Kerwin

Date: 5/19/2016

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