

PMC-ND
(1.08.09.13)

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



RECIPIENT: NREL

STATE: OR

PROJECT TITLE : Model Validation and Site Characterization for Early Deployment Marine Hydrokinetic (MHK) Sites and Establishment of Wave Classification Scheme – Wave Instrumentation Deployment; NEPA Tracking No. 16-017

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-AC36-08GO28308		GO28308

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:

**B3.16
 Research
 activities in
 aquatic
 environments**

Small-scale, temporary surveying, site characterization, and research activities in aquatic environments, limited to: (a) Acquisition of rights-of-way, easements, and temporary use permits; (b) Installation, operation, and removal of passive scientific measurement devices, including, but not limited to, antennae, tide gauges, flow testing equipment for existing wells, weighted hydrophones, salinity measurement devices, and water quality measurement devices; (c) Natural resource inventories, data and sample collection, environmental monitoring, and basic and applied research, excluding (1) large-scale vibratory coring techniques and (2) seismic activities other than passive techniques; and (d) Surveying and mapping. These activities would be conducted in accordance with, where applicable, an approved spill prevention, control, and response plan and would incorporate appropriate control technologies and best management practices. None of the activities listed above would occur within the boundary of an established marine sanctuary or wildlife refuge, a governmentally proposed marine sanctuary or wildlife refuge, or a governmentally recognized area of high biological sensitivity, unless authorized by the agency responsible for such refuge, sanctuary, or area (or after consultation with the responsible agency, if no authorization is required). If the proposed activities would occur outside such refuge, sanctuary, or area and if the activities would have the potential to cause impacts within such refuge, sanctuary, or area, then the responsible agency shall be consulted in order to determine whether authorization is required and whether such activities would have the potential to cause significant impacts on such refuge, sanctuary, or area. Areas of high biological sensitivity include, but are not limited to, areas of known ecological importance, whale and marine mammal mating and calving/pupping areas, and fish and invertebrate spawning and nursery areas recognized as being limited or unique and vulnerable to perturbation; these areas can occur in bays, estuaries, near shore, and far offshore, and may vary seasonally. No permanent facilities or devices would be constructed or installed. Covered actions do not include drilling of resource exploration or extraction wells.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to the National Renewable Energy Laboratory (NREL) to collect wave resource data using buoys and instrumentation at two potential wave energy sites off the coast of Reedsport and Lakeside, Oregon for up to a two year period.

Proposed activities would include: data analysis, project management and contract actions to select an experienced subcontractor to: develop a buoy and instrumentation deployment plan, obtain necessary permits and approvals for deployment and recovery of buoys and instrumentation.

One of the two locations for buoy and instrumentation deployment would be offshore of Reedsport, Oregon (approximate location: 43.76N, 124.23W). The ocean bottom is approximately 45 meters in depth at this location. The other location is offshore of Lakeside, Oregon (approximate location: 43.58N, 124.29W). The ocean bottom is approximately 80 meters in depth at this location. Both locations have been designated as "Renewable Energy Facility Suitability Study Areas" by the State of Oregon in their Oregon Territorial Sea Plan.

A Directional Waverider buoy would be deployed at each of the two locations to collect sea state information including wave direction, direct pitch, and roll measurements using sensors such as a horizontal accelerometer, a compass and a water temperature sensor which are all part of the buoy system. The spherical buoy is approximately 1 meter in diameter, with half the buoy above water and half below water. Each buoy would be anchored to the ocean floor using an anchor system which has a footprint of less than 0.5 square meters. The anchor and mooring system consists of rubber cord, shackles, several floats, sinkers, and scrap chain and would either utilize a slack mooring line configuration or a taught configuration.

An acoustic wave and current profiler (AWAC) sensor would also be deployed at the Reedsport, OR location. The AWAC sensor would be deployed subsurface and uses three slanted narrow acoustic beams to collect data. The acoustic frequencies would be between 400 kHz or 1 MHz. The AWAC sensor would be mounted on a fiberglass seafloor platform approximately 58" in length, 58" in width and 21" in height. The weight of the platform is approximately 150 lbs. in water with ballast.

Bouy and AWAC deployments are not authorized until additional information regarding deployment methods and site specific environmental information is provided by NREL and/or its subcontractor to DOE for additional NEPA review and completion of required consultations by DOE including the Endangered Species Act consultation. The required information is not available until NREL selects a subcontractor and the subcontractor develops the deployment plan.

Based on the review of the proposal, DOE has determined the proposal fits within the class of action and the integral elements of 10 CFR 1021 subpart B outlined in the DOE categorical exclusion 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. This proposal 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.

Insert the following language in the award:

You are required to:

Bouy and AWAC deployments are not authorized until additional information regarding deployment methods and site specific environmental information is provided by NREL and/or its subcontractor to DOE for additional NEPA review and completion of required consultations by DOE including the Endangered Species Act consultation.

Note to Specialist :

NREL
Prepared by Lori Gray, July 13, 2016

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature:  Lori Gray  Date: 7/13/2016
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