

PMC-ND

(1.08.09.13)

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



RECIPIENT: NREL

STATE: WA

PROJECT TITLE Model Validation and Site Characterization for Early Deployment MHK Sites and Establishment of Wave Classification Scheme – Tidal Instrumentation Deployment in Washington; NREL Tracking No. 17-008

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-AC36-08GO28308	NREL-17-008	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 tidal resource data at three locations within the Salish Sea of Washington state. Proposed activities would include: data analysis, project management actions for an experienced subcontractor to develop a deployment and retrieval plan, obtaining necessary permits and approvals, and deployment and recovery of the instruments.

The proposed deployment locations are: Tacoma Narrows: 47.28N, 122.55W, 35 m water depth; Rosario Strait: 48.58N, 122.75W, 60 m water depth; and Bellingham Channel: 48.56N, 122.66W, 75m water depth. Two Stable Moor buoys (SMBs) would be deployed to measure tidal turbulence using water current meters (ADV-IMUs) and water current profilers (ADCPs). The ADV-IMU sensor emits high frequency, low amplitude sound waves and processes small volumes of water to measure water velocity. The sensor would be mounted on the top of the SMB. The ADCP sensor uses four acoustic beams to determine changes in current. The acoustic frequencies would be between 300 kHz and 1200 kHz. The ADCP sensor would be mounted on the bottom of the SMB, facing downward. One SMB would support 2 ADV-IMUs and 2 ADCPs, and the other SMB would support 1 ADV-IMU and 2 ADCPs. Both SMBs would be deployed at the Tacoma Narrows location, and only one SMB would be deployed at the Rosario Strait and Bellingham Channel locations. The SMBs would be deployed for 3 to 5 days.

Each SMB would be anchored to the ocean floor using a clump-weight anchor made of railroad wheels with a footprint of less than one square meter. The anchor and mooring system would consist of 1/2" Amsteel line, 1/2" galvanized chain, steel shackles, and an acoustically triggered release, and would utilize a taught mooring line configuration. A pop-up buoy would be equipped for SMB recovery.

Instrument deployment actions are not authorized until additional information regarding deployment methods and site specific environmental information is provided by NREL and/or its subcontractor to DOE and DOE completes all

required consultations, including (but not limited to) the Endangered Species Act consultation. The information required for DOE to complete the consultations is not available at this time. It will be available to DOE after NREL's subcontractor develops the deployment and retrieval 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:

Instrument deployment actions are not authorized until additional information regarding deployment methods and site specific environmental information is provided by NREL and/or its subcontractor to DOE and DOE completes the required consultations, including (but not limited to) the Endangered Species Act consultation.

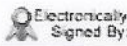
Note to Specialist :

NREL

Prepared by Nicole Serio, May 31, 2017

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____



Kristin Kerwin

NEPA Compliance Officer

Date: _____

6/2/2017

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: _____

Field Office Manager

Date: _____