PMC-EF2a

(2.06.02)

U.S. DEPARTMENT OF ENERGY
EERE PROJECT MANAGEMENT CENTER
NEPA DETERMINATION

RECIPIENT: Snohomish County PUD **STATE:** WA

PROJECT TITLE: Acoustic Effects of Hydrokinetic Tidal Turbines

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000069	DE-EE0002654	GFO-10-171	0

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:

B3.1 Onsite and offsite site characterization and environmental monitoring, including siting, construction (or modification), operation, and dismantlement or closing (abandonment) of characterization and monitoring devices and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis. Activities covered include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. Specific activities include, but are not limited to:

B3.3 Field and laboratory research, inventory, and information collection activities that are directly related to the conservation of fish or wildlife resources and that involve only negligible habitat destruction or population reduction

A9 Information gathering (including, but not limited to, literature surveys, inventories, audits), data analysis (including computer modeling), document preparation (such as conceptual design or feasibility studies, analytical energy supply and demand studies), and dissemination (including, but not limited to, document mailings, publication, and distribution; and classroom training and informational programs), but not including site characterization or environmental monitoring.

Rational for determination:

Snohomish County Public Utility District (PUD) is proposing to use DOE and cost-share funding to study of the acoustic effects of hydrokinetic tidal turbines at the site of the District's Admiralty Inlet pilot project. Activities would include the purchase and configuration of instrumentation, the deployment and retrieval of the instrumentation packages on the seabed, the simulation and measurement of sound propagation by a tidal turbine, and experimentation (conducted at Pacific Northwest National Labs) on the effects of turbine noise signals on an representative aquatic species.

To carry out the proposed project plan, the Snohomish PUD has partnered with the Northwest National Marine Renewable Energy Center at the University of Washington (NNMREC-UW), Pacific Northwest National Laboratory (PNNL), and Sea Mammal Research Unit, Ltd (SMRU Ltd).

Project tasks include:

Task 1: Site Monitoring - Data will be collected by passive instrumentation deployed temporarily on the seabed within the project area and on-shore at a light house. Seabed instrumentation packages will be built up around ballasted fiberglass tripods (~ 3ft across, 1.5 ft tall). This task will be carried out by the Northwest National Renewable Energy Center at the University of Washington (NNMREC-UW).

In water, ocean bed instrumentation will consist of acoustic Doppler current profilers (ADCP) for velocity measurements, Loggerhead recording hydrophones for ambient noise, Vemco fish tag receivers, CPod and/or TPod echolocation hydrophones, and CTDs to measure temperature and salinity.

On-shore equipment will consist of an automatic information system (AIS) receiver to log ship traffic in the area and an infrared camera to attempt to detect marine mammals in the project area. All equipment will be deployed for 18 months and then be removed.

Task 2: Turbine Noise Source - A sound source calibrated to simulate a hydrokinetic turbine will be temporarily deployed in Admiralty Inlet for a period of several hours during research cruises in May and August. Based on hydrophone recordings at several positions in Admiralty Inlet during this deployment, the propagation of turbine noise in Admiralty Inlet will be evaluated. This information will help resource agencies to better understand the acoustic footprint of an actual device (and the risks it might pose to aquatic species) prior to device deployment. The particular details of the sound source deployment will be developed in coordination with resource agencies (e.g., NMFS/NOAA and USFWS).

Task 3: Interpreted Presence and Behavior of Marine Mammals – Analysis of the data collected during the site monitoring task (task 1), the presence and behavior of marine mammals will be interpreted.

Task 4: Effect of Turbine Noise on Aquatic Species – Analysis of data collected in task 2 and a laboratory-based effort in which a representative aquatic species (juvenille Chinook salmon) will be exposed to varying levels of noise in order to investigate the potential risk posed by turbine operation.

Task 1 and task 3 would involve aquatic surveying and environmental monitoring techniques in the Admiralty Inlet region of the Puget Sound in Washington State in order to support the future plant micro-siting and environmental permitting for a proposed hydrokinetic energy deployment project. The monitoring devices that would be deployed have a variety of sensors attached to each unit. No mooring would be required and devises would be removed in less than 18 months. Workers gathering data in the would follow appropriate guidelines for maritime and navigational safety established and monitored by the U.S. Coast Guard. Marine vessels would be used for data gathering and would have all Coast Guard required maritime safety equipment.

Task 1 and 3 comprise field and laboratory research and information collection activities that are directly related to the conservation of wildlife resources and offsite site characterization and environmental monitoring; therefore a CX B3.3 and B3.1 apply.

Task 5 involves project management activities related to planning of previous tasks and comprises administrative actions; therefore a CX A9 applies.

Task 2 and 4 involve activities requiring coordination and possible permitting by the National Marine Fisheries Service (NMFS)/NOAA and the US Fish and Wildlife Service (USFWS). Coordination with these agencies by Snohomish PUD and acquisition of permits has not occurred. Impacts related to these activities are not known therefore a NEPA determination cannot be made at this time. These tasks are currently unallowable under NEPA.

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 2 and task 4 activities.
This restriction does not preclude you from:
Preliminary work to facilitate and complete the permitting and coordination requirements by the USFWS and NMFS/NOAA for task 2 and task 4 activities.

Tasks 1, 3, and 5

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.

Insert the following language in the award:

You are required to:
Submit an additional EF1 pertaining to all activities being performed under tasks 2 and 4. Include all applicable information and appropriate documentation relating to NMFS/NOAA and USFWS permitting and consultation.

Note to Specialist :

This award has NEPA conditions placed on all activities under tasks 2 and 4. These tasks require additional information submitted to NEPA and are unallowable activities at this time. NEPA recommends that this award be placed on ASAP approval.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: PBN Date: 4/29/10
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