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(1.08.09.13)

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

RECIPIENT: Northwest National Marine Renewable Energy Center **STATE:** OR

PROJECT TITLE: The Pacific Marine Energy Center South Energy Test Site (PMEC-SETS)

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0000847 & DNFA	DE-EE0006518	GFO-0006518-003	GO6518

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.)

B3.1 Site characterization and environmental monitoring Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) 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). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: (a) Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; (b) Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools); (c) Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; (d) Aquifer and underground reservoir response testing; (e) Installation and operation of ambient air monitoring equipment; (f) Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes); (g) Sampling and characterization of water effluents, air emissions, or solid waste streams; (h) Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources); (i) Sampling of flora or fauna; and (j) Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

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 federal funding to Oregon State University (OSU) to evaluate and validate the facility siting, design, construction and operational requirements for open-ocean, grid-connected wave energy conversion (WEC) device testing and performance certification/validation at the Pacific Marine Energy Center South Energy Test Site (PMEC-SETS).

Tasks 1 through 6, subtasks 7.1, 7.2.1, 7.2.2, 7.2.3, 7.2.4, 7.2.5, 8.1, 8.2, 8.3, 8.4 and 9.1, and Task 10 of the proposed project have been previously reviewed and received NEPA determinations (GFO-0006518-001 CX A9, 11/5/2014; and GFO-0006518-002, CX A9 and B3.1, 12/17/2015). This NEPA determination applies to the remaining subtasks as described in the revised, final SOPO. These are:

Subtask 7.2.6. - Wetland Survey
Subtask 7.2.7 - Cultural Survey
Subtask 8.5 - Geotechnical and Test Core Surveys
Subtask 8.6 - Analysis of Survey Results
Subtask 9.2 - HDD Route Surveys
Subtask 9.3 - Analysis of HDD Route Survey Results

The focus of the survey work described below is to determine possible routes for a power cable. Subtasks 7.2.6, 7.2.7, 8.5, and 9.2 could potentially necessitate terrestrial ground disturbance and disturbance in the near shore area of the ocean (nearshore would be up to 0.75 miles from shore and in water up to a depth of 16 meters), both of which have the potential to impact ecological and/or cultural resources. The project site for these surveys would be Driftwood Beach State Recreation Site (Driftwood), the ocean directly off Driftwood, as well as a potential site for a power connection facility located near Driftwood; on Legion Road to the east of Highway 101. Total terrestrial survey area would be approximately 0.20 square miles, while total ocean survey area would be approximately 0.13 square miles.

Terrestrial survey work would include shovel tests of wetland areas. In these tests a soil pit, of a maximum size of 24 inches around and 24 inches deep, would be dug and checked for moisture and soil conditions. The soil and vegetation would then be replaced back into the pit. Qualified personnel using standard methodologies would conduct the wetland and cultural surveys.

Terrestrial work would also include seismic analysis of surface waves. This analysis is completed by placing a metal base plate on the ground, striking it with a 20 pound sledge hammer, and then using geophones (passive receivers placed on the ground near the strike area) to collect data. For each potential survey line approximately six strike areas would be used.

Ocean survey work would utilize use of an ocean bottom profiler and side scan radar, deployed from a small vessel such as a rigid hull inflatable boat. The devices would emit sound into the near ocean area. The sounds would be approximately 202 dB re 1 µPa @ 1m SPL with a frequency of 2–8 kHz for sub-bottom profilers, and up to 211 dB re 1 µPa @ 1m SPL with a frequency of 120–410 kHz for side-scan sonar. The duration of the sound would be short, and the distance the sound would travel would be less than 100 meters. The sound profile would fall outside the hearing range, or at the upper hearing range for listed threatened and endangered species (listed species) that could be within the project area. OSU would use ramp up procedures to get devices into place, and apply best management practices within the ocean. Listed species within the project area are highly mobile and their distribution within the ocean is unpredictable. As such, listed species within the sound range of the devices would have a chance to move from the project area prior to the emitting of sound.

DOE determined that the proposed actions may affect, but were not likely to adversely affect (NLAA) the following listed species: Lower Columbia River Chinook salmon evolutionarily significant unit (ESU), Lower Columbia River coho salmon ESU, Oregon Coast coho salmon ESU, Lower Columbia River steelhead distinct population segments (DPS), Columbia River Chum salmon ESU, Southern DPS green sturgeon, Eulachon, Southern Resident DPS killer whale, Marbled murrelet, and Western snowy plover, and would have no adverse modification or destruction of critical habitat. As a result of these determinations, DOE instituted informal consultation with both the US Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) seeking concurrence regarding the determinations.

On May 27, 2016 the USFWS concurred with the DOE determination that the terrestrial tasks were not likely to adversely affect the Marbled murrelet and Western snowy plover.

On July 27, 2016 NMFS concurred with the DOE determination that the ocean survey tasks were not likely to

adversely affect listed fish or marine species, and would not adversely impact any critical habitat.

Subtasks 8.6 and 9.3 would involve analysis of the results obtained during the surveys. These tasks only involve data analysis.

Based on the review of the proposal, DOE has determined that subtasks 7.2.6, 7.2.7, 8.5, 8.6, 9.2, and 9.3 fit within the class of action(s) and the integral elements of 10 CFR 1021 subpart B outlined in the DOE categorical exclusion(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. Subtasks 7.2.6, 7.2.7, 8.5, 8.6, 9.2, and 9.3 are 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 need a tailored NEPA provision.
Review completed by Roak Parker August 2, 2016.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Electronically Signed By: Kristin Kerwin Date: 8/9/2016

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