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 : Instrumentation Installation OE Bouy for Ocean Energy and Siemens; NREL Tracking No. 19-017

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
	DE-AC36-08GO28308	NREL-19-017	GO28308

Based on my review of the information concerning the proposed action, as NEPA Compliance Officer (authorized under DOE Policy 451.1), I have made the following determination:

CX, EA, EIS APPENDIX AND NUMBER:

Description:

A11 Technical advice and assistance to organizations	Technical advice and planning assistance to international, national, state, and local organizations.
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.)
B5.25 Small-scale renewable energy research and development and pilot projects in aquatic environments	Small-scale renewable energy research and development projects and small-scale pilot projects located in aquatic environments. Activities would be in accordance with, where applicable, an approved spill prevention, control, and response plan, and would incorporate appropriate control technologies and best management practices. Covered actions would not occur (1) within areas of hazardous natural bottom conditions or (2) 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, use of large-scale vibratory coring techniques, or seismic activities other than passive techniques.

Rationale for determination:

The U.S. Department of Energy (DOE) proposes to provide federal funding to the National Renewable Energy Laboratory (NREL) to support the instrumentation, commissioning, deployment, and testing of the Ocean Energy (OE) Buoy. NREL would assist in instrumentation and commissioning activities for the OE Buoy at a shipbuilding facility in Portland, Oregon. The OE Buoy would be deployed and tested at the Wave Energy Test Site (WETS) located offshore of Marine Corps Base Hawaii at Kaneohe, Hawaii.

The OE Buoy is an Oscillating Water Column device that would create electricity using an air plenum (air forced through a turbine by a water column). It is a floating barge-like structure that is approximately 123 feet in length, 57 feet in width, and 50 feet in height. The bottom of the structure protrudes approximately 29 feet into the water. A turbine would be integrated into the OE Buoy that is approximately 25 feet in length and 21 feet in diameter, and would be installed above the water line. Once assembled, the OE Buoy would be instrumented and towed to Hawaii for commissioning, deployment and field testing at the WETS.

Deployment of the OE Buoy consists of two related but separately-funded projects by DOE, which are: (1) “Ocean Energy Demonstration of the Ocean Energy (OE) Buoy at US Navy’s Wave Energy Test Site”, DOE Award Number

EE0006924 (OE Buoy); and (2) “HydroAir Power Take Off System”, DOE Award Number EE0006609 (radial turbine).

NREL was not involved with the projects initially. However, NREL was recently selected to replace the original subcontractor(s) chosen to complete several project tasks, which are listed below.

OE Buoy:
Task 6 – Instrumentation, Data and Test Plan
Task 14 – Real Time Wave Measurement and Wave Prediction System Build and Installation
Task 15 – Turbine Generator System
Task 16 – Data Instrumentation
Task 17 – Hull Fit-out and Commissioning
Task 19 - Deployment

HydroAir radial turbine:
Task 8 – Construction
Task 9 – Installation and Commissioning
Task 10 – Testing

To accomplish the above tasks, NREL would provide labor to install instrumentation, and technical support during deployment and testing. There would be no change in scope to any task; all work would remain the same as identified in the original Statement of Project Objectives. The only change would be that NREL would now perform the above tasks in lieu of the original subcontractor(s) selected.

Both projects were subject to separate NEPA reviews, which analyzed the anticipated direct and indirect environment, health and safety impacts due to project tasks. Consultation with the National Marine Fisheries Service was completed, which considered the deployment, testing, and decommissioning of the OE Buoy and its components, including the turbine. The consultation resulted in a determination of not likely to adversely affect endangered or threatened species, migratory birds, and essential fish habitat. The NEPA determinations for both projects were signed by the DOE NEPA Compliance Officer on April 6, 2016; see: (1) “Ocean Energy Demonstration of the Ocean Energy (OE) Buoy at US Navy’s Wave Energy Test Site”, NEPA Control Number GFO-0006924-002; and (2) “HydroAir Power Take Off System”, NEPA Control Number GFO-0006609-003.

Because NREL would complete tasks that were analyzed in the previous NEPA reviews, and there would be no change in scope to any task, no additional impacts outside of those already identified in the previous referenced NEPA reviews are anticipated.

NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

NREL
Nicole Serio 1/28/2019

FOR CATEGORICAL EXCLUSION DETERMINATIONS

The proposed action (or the part of the proposal defined in the Rationale above) fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D. To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.
There are no extraordinary circumstances related to the proposed action that may affect the significance of the environmental effects of the proposal.
The proposed action has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but

cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.
The proposed action is categorically excluded from further NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Electronically Signed By: Lori Gray Date: 1/28/2019
NEPA Compliance Officer

FIELD OFFICE MANAGER DETERMINATION

☑ Field Office Manager review not required
☐ Field Office Manager review required

BASED ON MY REVIEW I CONCUR WITH THE DETERMINATION OF THE NCO :

Field Office Manager's Signature: _____ Date: _____
Field Office Manager