PMC-ND
(1.08.09.13)

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

RECIPIENT: Oscilla Power **STATE:** WA

PROJECT TITLE: Advanced Linear Hybrid Power Take-Off for Wave Energy Conversion

Funding Opportunity Announcement Number	Procurement Instrument Number	NEPA Control Number	CID Number
DE-FOA-0001663	DE-EE0008387	GFO-0008387-001	

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.)
B3.6 Small-scale research and development, laboratory operations, and pilot projects	Siting, construction, modification, operation, and decommissioning of facilities for smallscale research and development projects; conventional laboratory operations (such as preparation of chemical standards and sample analysis); and small-scale pilot projects (generally less than 2 years) frequently conducted to verify a concept before demonstration actions, provided that construction or modification would be within or contiguous to a previously disturbed or developed area (where active utilities and currently used roads are readily accessible). Not included in this category are demonstration actions, meaning actions that are undertaken at a scale to show whether a technology would be viable on a larger scale and suitable for commercial deployment.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to Oscilla Power, Inc. (OPI) to design, build, and test an improved higher power density linear hydraulic drivetrain for use in the Triton Wave Energy Converter (WEC) device.

OPI would complete conceptual design, modeling, and final engineering of the proposed drivetrain. This work would be completed at OPI's offices in Seattle, WA. OPI would then fabricate the drivetrain. This work would occur at OPI's fabrication facility in Seattle. The OPI fabrication facility is designed for fabricating and testing devices such as the proposed drivetrain. No modifications to the facility would be required. OPI staff who would fabricate the drivetrain are experienced in this type of work. All existing safety policies would be followed.

The drivetrain would be fabricated from steel and off the shelf (OTS) components such as hydraulic tubing, hydraulic fluid, and controls. Fabrication of the drivetrain would re-use an existing earlier version of the drivetrain. For this project OPI would be modifying that existing drivetrain, which would be the main component, but then use additional steel (1 to 2 Tonnes) and additional OTS components. The drivetrain would be 1:10 scale, and would have a maximum size of 8 feet six inches high by 8 feet six inches wide by 48 feet long.

Once fabricated OPI would conduct limited testing of the drivetrain at the Seattle fabrication facility. Testing at the facility would involve using a hydraulic actuator to ensure that the drivetrain is functional, leak free, and that all air has been removed from the hydraulic system.

The drivetrain would then be shipped by truck to Sandia National Laboratory (SNL) in Albuquerque, New Mexico. At SNL the drivetrain would be tested on SNL's linear dynomometer. Testing on the linear dynomometer would test the systems performance and load points. Once those tests were complete testing on the linear dynamometer would include durability testing to test stress and load limits.

Any work proposed to be conducted at a DOE laboratory may be subject to additional NEPA review by the cognizant DOE NEPA Compliance Officer for the specific DOE laboratory prior to initiating such work. Further, any work conducted at a DOE laboratory must meet the laboratory's health and safety requirements.

Based on the review of the proposal, DOE has determined the proposal fits within the class of action(s) and the integral elements of Appendix B to Subpart D of 10 CFR 1021 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. 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:
Any work proposed to be conducted at a DOE laboratory may be subject to additional NEPA review by the cognizant DOE NEPA Compliance Officer for the specific DOE laboratory prior to initiating such work. Further, any work conducted at a DOE laboratory must meet the laboratory's health and safety requirements.

Note to Specialist :

Water Power Technologies Office
This NEPA determination requires a tailored NEPA provision
NEPA review completed by Roak Parker 8/14/2018

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: Electronically Signed By: Casey Strickland Date: 8/15/2018

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