

PMC-ND

(1.08.09.13)

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

RECIPIENT: [EERE DOE WPTO](#)STATE: [CO](#)PROJECT
TITLE:[Prize: Powering the Blue Economy: Ocean Observation Prize](#)

Funding Opportunity Announcement Number Procurement Instrument Number NEPA Control Number CID Number
[GFO-OceanObservationPrize-003](#)

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:

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 authorize the administration of a prize competition, in partnership with the National Oceanic and Atmospheric Administration (NOAA)-led Integrated Ocean Observing System (IOOS), regarding ocean observing technologies, known as the Powering the Blue Economy™: Ocean Observing Prize (Ocean Observing Prize).

Through the Ocean Observing Prize DOE seeks to accelerate early-stage concepts which demonstrate marine energy system integration with ocean observation technologies. There are two proposed competitions under the prize, the DISCOVERY Competition and the DEVELOP Competition. Under the DEVELOP competition would include three separate contests: Design, Build, and Splash. DOE completed two previous NEPA determinations covering the DISCOVERY Competition and the Design contest within the DEVELOP Competition. (GFO-OceanObservationPrize-001; CX A9; 09/16/2019; GFO-OceanObservationPrize-001; CX A9; 09/02/2020). This NEPA review is for the second contest of the DEVELOP Competition, the Build Contest.

Under the Build Contest seven competitors would fabricate and test systems that use ocean surface waves as an energy source for recharging autonomous underwater vehicles at sea. The seven competitors within the Build Contests would be Alan Eustace's team, Kevin Lu, Mark Supal's team, Wave Powered Oceanographic Gliders, Halona WEC, Maiden Wave Energy LLC and, ReVision. Each team would fabricate their device at existing laboratories and fabrication facilities located at various locations within the United States, Canada, or the United Kingdom. Materials used in fabrication would include aluminum, stainless steel, foam, copper, lead, plastics, glass, acrylic, wood, rubber, electronic components, ceramic, carbon fiber, hydraulic oils, grease, and batteries. Sizes and shapes of the devices would vary widely, however all devices would be small scale. Maximum size of devices would be up to approximately 20 feet in length. Maximum weight of devices would be approximately 500 pounds. Most devices would be much smaller than the maximum size and weight.

All devices would be fabricated in pre-existing laboratory and/or fabrication facilities. Fabrication would necessarily include the usage of machinery and equipment, and would include use of multiple materials, as listed above. All fabrication facilities would adhere to existing corporate health and safety practices including use of protective equipment, as necessary. All excess material would be properly disposed of and or recycled. No new permits or modifications to facilities would be required. All existing federal, state and local regulations would be followed during fabrication.

Once fabricated contestants may test their devices. Some contestants would bench test their devices at the laboratory and fabrication facilities. Some contestants may conduct tank tests of their devices. All tank testing would occur in pre-existing indoor wave tank test facilities. These facilities are purposefully designed pools or wave tanks used for testing in water devices such as these in their regular course of business. Tanks to be utilized could include tanks available at Universities within the United States and the United Kingdom. One contestant may test their device in a small (100 feet by 100 feet) outdoor pond on private property. The pond does not contain any known species listed under the Endangered Species Act (ESA), and thus DOE has determined that this testing would have no effect on any ESA listed species.

After fabrication and testing, all devices would be delivered to the Naval Surface Warfare Center, Carderock Division (NSWCCD) where they will be tested in Navy's Mask Basin. The Mask Basin is a preexisting indoor wave tank facility approximately 110 m (360 ft) long, 73 m (240 ft) wide, and 6.1 m (20 ft) deep, and has a 10.7-m-deep (35-ft) by 15.2-m-wide (50-ft) trench parallel to the long side of the basin on the south side. The basin is regularly used for testing such as this, and has been utilized by the Department of Energy for testing multiple devices, including all final devices for the Wave Energy Prize.

Existing corporate, government and university health and safety procedures would be followed during all in water testing.

The third contests under the DEVELOP Competition would include testing the device in the ocean (Splash Contest). Rules regarding this contests are still being developed. As such, there is not enough information available to meaningfully evaluate that contest and thus they are restricted until further NEPA review is completed. Additional NEPA review will be completed once rules are developed.

Any work proposed to be conducted at a federal facility may be subject to additional NEPA review by the cognizant federal official and must meet the applicable health and safety requirements of the facility.

NEPA PROVISION

DOE has made a conditional NEPA determination.

The NEPA Determination applies to the following Topic Areas, Budget Periods, and/or tasks:

Discovery Competition
Design Contest
Build Contest

The NEPA Determination does not apply to the following Topic Area, Budget Periods, and/or tasks:

Splash Contest

Include the following condition in the financial assistance agreement:

No in-ocean testing is allowed

Notes:

Water Power Technologies Office
This NEPA determination does require a tailored NEPA provision.
Review completed by Roak Parker, 06/30/2021

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.

DOE has determined that work to be carried out outside of the United States, its territories and possessions is exempt from further review pursuant to Section 5.1.1 of the DOE Final Guidelines for Implementation of Executive Order 12114; "Environmental Effects Abroad of Major Federal Actions."

A portion of the proposed action is categorically excluded from further NEPA review. The NEPA Provision identifies Topic Areas, Budget Periods, tasks, and/or subtasks that are subject to additional NEPA review.

SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.

NEPA Compliance Officer Signature: _____

 Electronically
Signed By: **Roak Parker**
NEPA Compliance Officer

Date: 6/30/2021

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: _____

Field Office Manager

Date: _____