Department of Energy
Golden Field Office
15013 Denver West Parkway
Golden, Colorado 80401

FINDING OF NO SIGNIFICANT IMPACT

Oregon State University, PacWave South, Newport, Oregon

DOE/EA-2117

AGENCY: U.S. Department of Energy (DOE), Office of Energy Efficiency and Renewable Energy (EERE)

ACTION: Finding of No Significant Impact (FONSI)

SUMMARY: DOE is proposing to provide funding to Oregon State University (OSU) to support the development of a 20-megawatt (MW) wave energy test facility that would be located approximately 6 nautical miles off the coast of Newport, Oregon, and in Oregon territorial waters (Proposed Project).[1] In compliance with the National Environmental Policy Act (NEPA), The Federal Energy Regulatory Commission (FERC) was the lead federal agency, and DOE and the Bureau of Ocean Energy Management (BOEM) were cooperating agencies, in the development of the Environmental Assessment (EA) titled *PacWave South Project FERC Project No. 14616-001 Oregon.*

The EA evaluated the potential environmental impacts of DOE's action of providing federal funding to the Proposed Project (DOE's Proposed Action). The analysis provided in the EA supports DOE's determination that providing federal funding for the Proposed Project will not significantly affect the quality of the human and natural environment. The EA is hereby incorporated into this FONSI by reference.

DOE places a strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts. As set forth in Chapter 5, Sections 5.1.1 *Measures Proposed by OSU* and Section 5.1.2 *Additional Measures Recommended by Staff*, of the EA, OSU has committed to incorporating certain measures, including project design decisions, to ensure that the potential for adverse impacts to natural and cultural resources are minimized. These commitments and project design decisions, along with any additional measures identified through the federal, state and local permitting processes, (collectively "measures"), would be incorporated and binding through the DOE funding agreement. The measures are not necessary to decrease the level of impact below significant, but the measures are intended to further reduce the likelihood of impacts and to ensure the Proposed Project is carried out in an environmentally responsible manner.

[1] Prior to the issuance of this FONSI, DOE authorized OSU to use federal funding for preliminary activities, which include EA preparation, information gathering, site analysis, design simulations, permitting, and environmental surveys. These activities are associated with the Proposed Project and do not significantly impact the environment nor represent an irreversible or irretrievable commitment by DOE in advance of its completion of the EA and subsequent decision to issue this FONSI.

Context of Potential Impacts

DOE must evaluate the significance of an action in several different contexts as the significance of the potential impact varies with the setting of the proposed action. Both short- and long-term effects are relevant.

The Proposed Project is a wave energy test facility that would be located on the Outer-Continental Shelf (OCS) in the Pacific Ocean, approximately 6 nautical miles off the shore of Newport, Oregon, and in Oregon territorial waters. The Proposed Project occupies an area of approximately 2.65 square miles (1,695 acres) on the OCS, and administered through a lease by BOEM. The Proposed Project consists of four offshore test berths containing a maximum of 20 Wave Energy Converter (WEC) devices with a maximum installed capacity of 20 MW. The Proposed Project includes various anchoring and mooring systems mooring infrastructure including surface buoys, subsea connectors, 5 buried subsea transmission cables which would be brought ashore at Driftwood Beach State Recreation Site (Driftwood), and buried transmission lines from Driftwood to a new grid-connected substation (a Utility Connection and Monitoring Facility (UCMF)) on OSU owned property 0.3 miles south from Driftwood.

The Proposed Project Area considered in the EA includes the proposed 1,695 acre test site, the in-ocean cable routes, and the terrestrial areas including Driftwood, terrestrial cable routes, and the UCMF.

The Proposed Project would not cause any significant adverse effects nationally, within the Pacific Northwest region, or the onshore or offshore area within or near the Proposed Project Area.

Under the no-action alternative, the Proposed Project would not be constructed. There would be no changes to the physical, biological, or cultural resources of the area, and electrical generation from the project would not occur. The benefits associated with the project, including generation, wave energy converter testing, and development of wave energy converters, would not occur. The power that would have been developed from a renewable resource would likely be replaced by nonrenewable fuels.

Intensity of Potential Impacts

The following discussion is organized around the ten (10) intensity factors, described in the Council for Environmental Quality (CEQ) National Environmental Policy Act (NEPA) Implementing Regulations, 40 Code of Federal Regulations (CFR) 1508.27(b), which refer to severity of impact.

1) Impacts that may be both beneficial and adverse:

The EA evaluated adverse effects of the Proposed Project separately from beneficial effects to evaluate whether such adverse effects would have been significant in their own right. The EA did not find any significant adverse or beneficial impacts that would result from the Proposed Project. The analysis in the EA did not use beneficial effects to offset the potential significance of any adverse effect.

The beneficial impacts of the Proposed Project would include a contribution toward the reduction of regional greenhouse gas emissions, diversification of regional energy supply, and economic revitalization of key sectors of the regional economy.

Adverse impacts found in Chapter 3, include negligible to minor, short-term to long-term, impacts to water quality, benthos, fish resources, protected species, marine mammals, birds, visual resources, and recreational use.

Applicant-committed measures found in Sections 5.1.1 and 5.1.2 have been established to minimize or eliminate potential adverse impacts to sensitive resources.

2) The degree to which the proposed action affects public health or safety:

The Proposed Project must comply with all state and federal regulations. Air emissions would not exceed National Ambient Air Quality Standards (NAAQS) and criteria pollutant emissions would be less than the de minimis thresholds. In addition, vessels would utilize best management practices, and project structures would be marked with navigational aids as required by the United States Coast Guard. Therefore no adverse effects to public health or safety are anticipated. As presented in the EA, the Proposed Project will not cause any significant effects on public health and safety.

The Proposed Project does not involve the transportation, storage, or use of radioactive, explosive or toxic materials. The Proposed Project is not located near any national defense infrastructure or in the immediate vicinity of any other substantial national structure; and is a single component of a diversified power grid. Therefore, the Proposed Project would not be a likely target for intentional destructive acts that could further affect public safety.

3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas:

The EA evaluated unique characteristics of the project area the potential impacts of the Proposed Project on natural and cultural resources. There are no wetlands, prime farmlands, park lands, or wild and scenic rivers, or ecologically critical areas in the Proposed Project area.

The EA did not identify any cultural resources within the marine portion of the Proposed Project, and during the development of the EA, no historic or prehistoric cultural resources were encountered on the terrestrial portion of the Proposed Project.

Based on the analysis provided in the EA, DOE has concluded that the Proposed Project would not cause any adverse effects to unique characteristics of the geographic area.

4) The degree to which the effects on the quality of the human environment are likely to be highly controversial:

There is no known credible scientific controversy over the impacts of the Proposed Project. Accordingly, the effects on the quality of the human environment are not likely to be highly controversial.

5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks:

Although the testing of wave energy devices would involve testing relatively new technology, testing and scientific peer reviewed research on the technology are sufficient to support the findings and assessment of effects in the EA. The potential impacts to the human environment are fully analyzed and supported by previous projects, studies and publications, as referenced in the EA. OSU has further committed to adaptive management practices to address impacts. There is a low probability of highly uncertain effects or unique or unknown risks resulting from the Proposed Project.

6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration:

DOE is seeking to establish a wave energy test center. Results of the Proposed Project could provide performance, engineering, environmental monitoring, operations, and cost data to further the existing knowledge base concerning wave energy devices. Implementation of the Proposed Project does not establish a precedent for future actions or represent a decision in principle about a future consideration. The Proposed Project does not establish precedent regarding deployment of wave energy devices beyond those deployed for testing at the proposed testing center.

7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts:

The EA analyzed the proposed project in the context of other past, present and reasonably foreseeable actions. The Proposed Action, when evaluated together with other past, present, or reasonably foreseeable activities in the area, would not result in other adverse cumulatively significant impacts to the marine or freshwater environment, including marine protected species and sensitive habitats; would only contribute a negligible cumulative effect on geology and soils, and on navigation and commercial and recreational crabbing and fishing; and would only minimally contribute to ongoing cumulative effects on Threatened and Endangered Species and Essential Fish Habitat. The EA concludes that there is an expected small positive cumulative effect to the economy from the Proposed Project.

8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places (NRHP) or may cause loss or destruction of significant scientific, cultural, or historical resources:

Section 3.3.7 *Aesthetic Resources* and 3.3.8 *Cultural Resources* of the EA identifies historic resources within the Proposed Project area that are listed in or eligible for listing in the National Register of Historic Places and visual impacts to those resources. OSU determined, and the Oregon State Historic Preservation office concurred, that there are no historic or cultural resources within the Proposed Project area. Deployed wave energy devices at the proposed project could be visible from some areas of shore, but visibility would be very limited due to the distance from shore and the size of the devices. The project would not be visible from any historic resource.

9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act (ESA) of 1973:

OSU determined that there are 40 federally listed species within the Proposed Project area. OSU determined the Proposed Project *may effect but is not likely to adversely affect* 36 of those species. OSU also determined that the Proposed Project would not adversely affect critical habitat. Further OSU determined that the Proposed Project may effect and is likely to adversely effect four species, but would not result in jeopardy for any of those species. Those four species are the euchalon, the green sturgeon, the chinook salmon, and the Coho salmon. FERC, as lead agency, engaged in formal consultation with National Marine Fisheries Service (NMFS) regarding marine species, including the four species that would be adversely effected. FERC also engaged in informal consultation with United State Fish and Wildlife Service (USFWS). NMFS concurred with the determination, and issued a Biological Opinion on December 20, 2019 which included specific terms and conditions. Those terms and conditions are contained within

the EA. Compliance with those terms and conditions is a requirement for obtaining a FERC license. Those terms and conditions will also be incorporated and binding through the DOE funding agreement. USFWS concurred with the determination regarding species under their jurisdiction.

The Proposed Project will not significantly adversely affect any endangered or threatened species or any critical habitat.

10) Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the human environment:

The Proposed Project does not violate any federal, state, or local law or requirement imposed for the protection of the environment. The federal funding would be contingent on OSU obtaining and complying with all appropriate federal, state, and local authorizations required for of the Proposed Project.

Conclusion

DOE finds that the Proposed Action is not a major action that constitutes a significant effect on the human environment. This finding and decision is based on the consideration of DOE's NEPA implementing regulations (10 CFR Part 1021) and the CEQ's criteria for significance (40 CFR 1508.27), both with regard to the context and the intensity of impacts analyzed in the EA. Accordingly, the Proposed Action does not require the preparation of an environmental impact statement.

For questions about this FONSI or the Final EA, please contact:

U.S. Department of Energy
Golden Field Office
15013 Denver West Parkway
Golden, Colorado 80401
GONEPA@ee.doe.gov

For information about the DOE NEPA process, please contact:

Office of NEPA Policy and Compliance
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585
http://energy.gov/nepa/office-nepa-policy-and-compliance

Issued in Golden, Colorado this 1st day of July 2020.

Derek G. Passarelli

Derek G. Passarelli
Director, Golden Field Office