



Department of Energy

Golden Field Office

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FINDING OF NO SIGNIFICANT IMPACT

Fishermen's Atlantic City Windfarm Offshore of Atlantic City, New Jersey

DOE/EA-1970

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 federal funding to Fishermen's Atlantic City Windfarm, LLC (FACW) to support the development of an offshore wind renewable energy facility within New Jersey State Waters located approximately 2.8 miles off the coast of Atlantic City, New Jersey (Proposed Project).¹ The Proposed Project would consist of up to six wind turbine generators that would generate up to approximately 25 Megawatts (MW) of electricity and the necessary electrical transmission facilities (i.e., undersea and underground cable) to connect the wind farm to an existing electrical substation, located in Atlantic City, for interconnection to the regional power grid. Electrical power generated from the Proposed Project would be sold to the market through the state's energy regulating agency, the Board of Public Utilities (BPU), or directly to a large independent power consumer. In compliance with the National Environmental Policy Act (NEPA), DOE was the lead federal agency and the U.S. Army Corps of Engineers (USACE), Philadelphia District was a cooperating agency in the development of the Environmental Assessment (EA) titled *Environmental Assessment for Fishermen's Atlantic City Windfarm, Offshore of Atlantic City, New Jersey*; DOE/EA-1970.

DOE evaluated the potential environmental impacts 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 2, Section 2.6 *Applicant-Committed Measures* of the EA, FACW has committed to incorporating mandatory project design criteria, which are intended to ensure that the potential for adverse impacts to natural and cultural resources are minimized, if not eliminated. FACW's commitment to obtain and comply with all appropriate federal, state, and local permits required for the project and to minimize potential impacts through the implementation of applicant committed measures, and best management practices (BMPs), shall be incorporated and enforceable through DOE's financial

¹ Prior to the issuance of this FONSI, DOE authorized FACW to use a percentage of the federal funding for preliminary activities, which include preparing this EA and associated FONSI. These activities are associated with the Proposed Project and do not significantly impact the environment nor represent an irreversible or irretrievable commitment by the DOE in advance of this finding for the Proposed Project.

assistance agreement.

Context of Potential Impacts

DOE must evaluate the significance of an action in several different contexts, such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the locale rather than globally. Both short- and long-term effects are relevant.

The Proposed Project is located within New Jersey State Waters approximately 2.8 miles off the coast of Atlantic City, New Jersey. The inter-array transmission cable from each turbine structure would be linked to the export cable that would make landfall at a point in Atlantic City, at the base (southeast terminus) of Tennessee Avenue. The cable would then continue northwest for 1.2 miles underground to the existing Huron Substation, located along Absecon Avenue. The submarine transmission cable route was selected after evaluations of alternative routes and landfall locations which included bringing the cable to shore through the Absecon Inlet. The route ultimately selected proved to present the least environmental impacts identified during the permitting process and was most acceptable to the U.S. Coast Guard (USCG).

The total ocean area considered as the project area is approximately 170 acres (calculated as the perimeter around the group of turbines, approximately 200 feet in each direction) plus a 5 foot width along the length of the export cable route from the turbines to the shore; however the actual portion of the area that would be physically disturbed by the placement of the turbines and cables is approximately 2 acres. The expected operational life of the offshore wind facility is 25 years.

Based on the analysis in the EA, impacts of the Proposed Project would not cause any significant adverse effects nationally, regionally, or at the statewide level.

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, which refer to severity of impact. The intensity of effects considered is in terms of the following:

1) Impacts that may be both beneficial and adverse:

As discussed in the EA, 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.

The EA evaluated adverse effects of the Proposed Project separately from beneficial effects, to determine whether such adverse effects would have been significant in their own right, and no such effects were found to be significant. The analysis in the EA did not use beneficial effects to offset the potential significance of any adverse effect.

Adverse impacts, summarized in Section 3.8 *Summary of Environmental Impacts* of the EA, include minor short-term impacts to air quality, noise, and water quality that would occur during construction. Negligible,

minor short-term and long-term impacts to air quality, noise and water quality would also be expected as a result of the increased presence of marine vessels throughout the life of the Proposed Project. Additionally, moderate short-term adverse impacts to marine biological resources would be expected during construction, primarily as a result of construction noise associated with pile driving. Long-term operational impacts to marine biological resources associated with the presence of the turbines as well as the associated marine maintenance vessels would be minor. The Proposed Project would not result in significant irreversible resource commitments or irretrievable losses of resources.

Project design features, including BMP's and applicant-committed measures such as marine mammal vessel strike avoidance measures and post construction monitoring plans have been established to minimize or eliminate potential adverse impacts to sensitive resources.

Accordingly, DOE concludes the Proposed Project will not have any significant adverse impacts and that the Proposed Project would have beneficial impacts to the economy and development of renewable energy.

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

The project activities will 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 during construction, operation, and decommissioning activities. In addition, the turbines would be equipped with all of the required navigational safety equipment, including (but not limited to) a fog detector, foghorn, and radar reflector, in order to facilitate the safe passage of boats and other marine traffic. 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.

Installation and operation of 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 a major inland port, container terminal or 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 identified unique characteristics in the vicinity of the Proposed Project and evaluated the potential impacts of the Proposed Project on natural and cultural resources. An archaeological analysis of core samples of underwater sediments found marine sediments exclusively, with no evidence of submerged cultural resources or archaeologically sensitive paleosols (i.e., fossil soil is a soil that formed on a landscape of the past) (Robinson 2010). Additionally, a Phase I Marine Archaeological Survey (Robinson 2011) found no archaeological deposits eligible for listing on the National Register of Historic Places (NRHP) within the Proposed Project's Area of Potential Effect (APE). The survey also found no evidence for submerged landforms with the potential to contain pre-contact period Native American archaeological deposits. Based on the archaeological analysis, marine archaeological survey and consultations with the State Historic Preservation Office and potentially affected American Indian tribes, it was determined there were no historic properties present within the APE for the proposed construction of the turbines and there would be no direct effects on historic or cultural resources from the Proposed Project. USACE Individual Permit

requirements for the Proposed Project requires that the discovery of any previously unknown historic or archeological remains during construction results in immediate notification of the USACE and coordination with the SHPO.

As part of the permit development process for the project, a delineation of wetlands in the vicinity of the Huron Substation was completed, as well as measurement of the wrack line at the shoreline as a means of discerning mean high tide lines. The delineation was conducted in accordance with the guidance described in the New Jersey Freshwater Wetlands Protection Act and USACE Wetland Delineation Manual. The delineation confirmed the presence of emergent wetlands, dominated by common reed (*Phragmites australis*) to the east of the substation. However, the cable run to the substation would be located along the western side of the substation; therefore, no further action was required relative to these wetlands.

Based on the analysis provided in the EA, DOE has concluded that the Proposed Project would not cause any adverse effects on 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:

The effects on the quality of the human environment are not likely to be highly controversial. There is no known credible scientific controversy over the impacts of the Proposed Project. While DOE received several comment letters from the public and other agencies on the EA which resulted in minor changes to the EA to add clarification, nothing received as part of the public comment period indicated a high level of controversy regarding the Proposed Project.

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

The impact analyses in Chapter 3 *Affected Environment and Environmental Impacts* of the EA show effects of the Proposed Project are not uncertain; they do not involve unique or unknown risks. Actions similar to the Proposed Project have been previously permitted (e.g., Block Island Wind Farm, Deepwater ONE, etc.) and land-based turbine projects have recently been implemented within the vicinity of the Proposed Project (e.g., Jersey-Atlantic Wind Farm in Atlantic City, New Jersey). The proposed turbine foundations would be similar to oil and gas foundations but smaller in scale and all vessels that are proposed for use during construction and maintenance are common. Consequently, impacts of turbines in the region are well studied. Applicant-committed measures, permit requirements, BMPs, and monitoring would ensure effects are within the expected parameters. Accordingly, the effects of the Proposed Project are not highly uncertain, nor do they involve unique or unknown risks.

Although some elements of the Proposed Project involve 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. 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:

The Proposed Action supports DOE's goal of installing innovative offshore wind systems in U.S. waters in the most rapid and responsible manner possible to expedite the development and deployment of innovative offshore wind energy systems with a credible potential for lowering the levelized cost of energy. However, implementation of the Proposed Project does not establish a precedent for future actions or represent a decision in principle about a future consideration. Public and agency comments for the Proposed Project did not raise any disputes pertaining to the appropriate scope of the Proposed Project, connectedness of other actions, or reasonably foreseeable future actions other than those considered. Accordingly, the Proposed Project would not establish a precedent.

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

The EA evaluated the Proposed Project in the context of other past, present and reasonably foreseeable actions. When considering other activities within the area affected, the cumulative impacts of the Proposed Project are anticipated to be minor. Vessel traffic associated with the Project would contribute to minor cumulative impacts associated with navigation, effluent discharges, air emissions, and noise. Further, operation of the Proposed Project would contribute to minor cumulative impacts to biological resources. Based on the analysis provided in the EA, DOE concludes the cumulative impacts of the Proposed Project would not be significant, and the Proposed Project is not related to other actions, that when combined, would have significant impacts.

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 3.5.2 of the EA identifies historic resources that are listed in or eligible for listing in the NRHP. A viewshed analysis was conducted to evaluate the indirect visual effects of the Proposed Project on districts, sites, highways, structures or objects listed in or eligible for listing in the NRHP. The turbines will be visible from seven National and/or State Registered Historic Places located within the APE. However, based on consultations with the USACE, the Tribes, the State Historic Preservation Office, and other consulting parties it was determined that no historic properties would be adversely affected by the Proposed Project. Accordingly, DOE concludes the Proposed Project would have no adverse effect on districts, sites, highways, structures, or objects listed or eligible for listing in the NRHP.

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:

As described in Section 3.4 *Biological Resources* of the EA five federally listed endangered species have been observed within the vicinity of the Proposed Project, including the fin whale (*Balaenoptera physalus*), humpback whale (*Megaptera novaeangliae*), North Atlantic right whale (*Eubalaena glacialis*), Leatherback turtle (*Dermochelys coriacea*), and loggerhead turtle (*Caretta caretta*). No other federally listed species have been observed during survey efforts within the vicinity of the Proposed Project.

DOE determined the Proposed Project *may effect but is not likely to adversely affect* the following federally listed species: Atlantic right whale, humpback whale, fin whale, sei whale, blue whale, sperm whale, Kemp's ridley sea turtle, loggerhead sea turtle, green sea turtle, leatherback sea turtle, hawksbill sea turtles, Atlantic sturgeon, shortnose sturgeon, roseate tern, piping plover, red knot, northern long-eared bat, and seabeach amaranth with the inclusion of the Department of the Army special permit conditions. During Endangered Species Act Section 7 consultation, the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS) concurred with this determination.

As described in Section 3.4.2.3 *Fisheries* of the EA, construction of the Proposed Project would result in temporary disturbance of Essential Fish Habitat (EFH). Approximately 3.66 acres of benthic EFH would be adversely impacted as a result of cable installation. There would be additional disturbance and temporary loss of habitat around the borehole where the 12-inch diameter horizontal directional drilling conduit would break out of the seabed. Anchor line sweep, anchoring and skids on the jet plow would also temporarily disturb small additional areas of substrate. All of these adverse impacts would be short-term and minor. Installation of the turbine foundations would result in the loss of approximately 1.0 acres of benthic EFH. DOE determined that the Proposed Project would have *more than minimal but less than substantial adverse effects* on EFH and related species of concern. NMFS concurred with this determination during EFH consultation under the Magnuson-Stevens Fishery Conservation and Management Act and provided several conservation measures to ensure that any adverse effect on EFH is not going to be substantial.

Based on analysis provided in the EA and consultation with USFWS and NMFS, DOE has concluded that the Proposed Project will not significantly adversely affect an 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. Prior to DOE's involvement with the Proposed Project, FACW coordinated with, and obtained authorizations and input from, various federal, state, and local agencies, primarily associated with various permitting processes for the FACW. This information is summarized in Section 2.5 *Permitting Summary* of the EA.

FACW's commitment to obtain and comply with all appropriate federal, state, and local authorizations required for the project and to minimize potential impacts through implementation of BMPs and applicant-committed measures detailed in the EA shall be incorporated and will be enforceable through DOE's financial assistance agreement. The applicant-committed measures and BMPs are consistent with applicable federal, state, and local laws and requirements for the protection of the environment and with agency policy and direction.

Conclusion

Based on the EA and the above considerations, 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:

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