

PMC-ND

(1.08.09.13)

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



RECIPIENT: SMRU Consulting

STATE: WA

PROJECT TITLE: Coastal Acoustic Buoy for Offshore Wind

<b>Funding Opportunity Announcement Number</b>	<b>Procurement Instrument Number</b>	<b>NEPA Control Number</b>	<b>CID Number</b>
DE-FOA-0001924	DE-EE0008732	GFO-0008732-003	G08732

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.

**B3.16 Research activities in aquatic environments** Small-scale, temporary surveying, site characterization, and research activities in aquatic environments, limited to: (a) Acquisition of rights-of-way, easements, and temporary use permits; (b) Installation, operation, and removal of passive scientific measurement devices, including, but not limited to, antennae, tide gauges, flow testing equipment for existing wells, weighted hydrophones, salinity measurement devices, and water quality measurement devices; (c) Natural resource inventories, data and sample collection, environmental monitoring, and basic and applied research, excluding (1) large-scale vibratory coring techniques and (2) seismic activities other than passive techniques; and (d) Surveying and mapping. These activities would be conducted in accordance with, where applicable, an approved spill prevention, control, and response plan and would incorporate appropriate control technologies and best management practices. None of the activities listed above would occur 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.

Rationale for determination:

The U.S. Department of Energy (DOE) is proposing to provide funding to SMRU Consulting to develop technology to validate acoustic noise modelling and monitor exclusion zones for North Atlantic right whales (NARW) during offshore wind construction (with an emphasis on pile driving). The objective of the proposed project is to develop a cost-effective and robust system for monitoring and mitigating U.S. offshore wind construction through the use of a Coastal Acoustic Buoy (CAB). This project would be completed over two budget periods (BP) with a go/no-go decision after BP 1.

DOE previously completed two NEPA reviews for all tasks in BP1 (GFO-0007823-001 CX A9 and B5.15, 07/02/2019, GFO-0007823-001 CX A9, B3.6, and B3.16, 06/01/2020). This review is for BP2. In BP2 SMRU would conduct in

water tests of the CAB and analyze data from those tests. Tests would be conducted in ocean waters off the coast of Maryland. Data would be analyzed at SMRU offices.

The CAB is a passive acoustic buoy system which contains a small float, a cable, and a lander. The float holds an antenna, visual markers and Coast Guard lighting. The float is connected via a power and communication cable to the lander which would rest on the sea floor. The cable contains several floats to keep it taut. The cable also has a minimum bend radius and cannot loop, reducing entanglement risk. The lander is 49 by 55 inches and weighs 800 pounds. The body of the lander is metal. The lander houses instrumentation, provides power to the buoy, and acts as an anchor to hold the buoy in place.

Tests would involve deploying five CAB systems from an approximate 150 foot research vessel. During the first day of field work the vessel would deploy the five systems. Deployment would consist of placement of the float in the water, pay out of the cable and then gently lower the lander to the bottom with a separate working line. All five CAB systems would be deployed during the first day of field work.

Once deployed SMRU would conduct approximately 3 days of field testing. Field trials would consist of playing 27 representative North Atlantic Right Whale (NARW) calls along a transect in the vicinity of each CAB system. SMRU would be testing the CAB system to correctly identify NARW calls, and to correctly identify the location from where the calls are originating, including direction and distance from the CAB. An underwater projector would be used to play the upcalls at no more than 160 dB rms re 1 $\mu$ Pa at 1 meter which is within the estimated source levels of NARW tonal calls. The playbacks would be monitored at 1 m from the projector using a calibrated hydrophone to ensure that playbacks do not exceed 160 dB rms re 1 $\mu$ Pa. Playbacks would be conducted for up to 8 hours of each playback day and only during daylight hours. The vessel would move to a playback location, shut down its motors, lower the underwater projector to a depth of 5 m, play the 27 representative NARW calls, recover the underwater projector and then move to the next playback location, approximately 500 m away.

During field work SMRU would undertake a variety of Best Management Practices including safety practices associated with in water and vessel work, and using trained marine mammal observers. SMRU would stop field work if a marine mammal comes within 500 meters of the work and playback zone and would not resume work until the animal had voluntarily left the area.

After field testing, all CAB systems would be removed from the water during the final day of field work.

Field testing would occur in waters off the coast of Maryland. There are numerous Endangered Species Act listed species (listed species) known to occur within the proposed project area. These include the Atlantic Sturgeon (GOM DPS), Shortnose Sturgeon, Green Sea Turtle, Kemp's Ridley Sea Turtle, Leatherback Sea Turtle, Loggerhead Sea Turtle, Blue whale, Fin whale, Humpback Whale (West Indies DPS), North Atlantic right whale, Sei whale, and Sperm whale. Because the proposed project would have the potential to impact some of these listed species a Biological Evaluation was prepared to evaluate any potential impact to listed species. DOE determined that the proposed project may affect, but would not likely adversely affect (NLAA) each of the listed species. On July 13, 2021 DOE engaged in informal consultation with the National Marine Fisheries Service (NMFS), as required under Section 7 of the Endangered Species Act, and sought concurrence regarding the NLAA determination. On August 12, 2021 NMFS concurred with DOE's determination.

## NEPA PROVISION

DOE has made a final NEPA determination.

Notes:

Wind Energy Technology Office

This NEPA determination does not require a tailored NEPA provision.

Review completed by Roak Parker, 08/12/2021

## 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.

The proposed action is categorically excluded from further NEPA review.

**SIGNATURE OF THIS MEMORANDUM CONSTITUTES A RECORD OF THIS DECISION.**

NEPA Compliance Officer Signature:  Roak Parker Date: 8/12/2021  
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