Finding of No Historic Properties Affected for the
Approval of the US Wind Inc. New Site Assessment Plan on the Outer Continental Shelf Offshore Maryland

Finding

The Bureau of Ocean Energy Management (BOEM) has made a Finding of No Historic Properties Affected for this undertaking, pursuant to 36 CFR § 800.4(d)(1). No historic properties have been identified within the offshore area of potential effects (APE) and the undertaking will have no effect on historic properties located within the onshore area of potential effects.

Documentation in Support of the Finding

I. Description of the Undertaking

Summary

This document describes BOEM’s compliance with Section 106 of the National Historic Preservation Act and documents the agency’s finding of No Historic Properties Affected (Finding) under 36 CFR § 800.4 (d)(1) for the undertaking of approving the new US Wind, Inc. Site Assessment Plan (SAP) on the Outer Continental Shelf (OCS) offshore Maryland.

BOEM has prepared this documentation in support of the Finding following the standards outlined at 36 CFR § 800.11(d) and as fulfillment of Stipulation IV of the Programmatic Agreement among BOEM; the State Historic Preservation Officers (SHPO) of Delaware, Maryland, New Jersey, and Virginia; the Advisory Council on Historic Preservation (ACHP); the Narragansett Indian Tribe; and the Shinnecock Indian Nation.

This Finding and supporting documentation are being provided to the Delaware SHPO, Maryland SHPO, ACHP, Narragansett Indian Tribe and Shinnecock Indian Nation as signatories to this agreement, as well as to the National Park Service (NPS) and Lenape Tribe of Delaware who are consulting parties to this undertaking. This Finding and supporting documentation will be made available for public inspection by placement on BOEM’s website prior to the bureau approving the undertaking.

Federal Involvement

The Energy Policy Act of 2005, Pub. L. No. 109-58, added Section 8(p)(1)(C) to the Outer Continental Shelf Lands Act, which grants the Secretary of the Interior the authority to issue leases, easements, or rights-of-way on the OCS for the purpose of renewable energy development, including wind energy development. See 43 U.S.C. § 1337(p)(1)(C). The Secretary delegated this authority to the former Minerals
Management Service, now BOEM. On April 22, 2009, BOEM promulgated final regulations implementing this authority at 30 CFR § 585.

Under the renewable energy regulations, the issuance of leases and subsequent approval of wind energy development on the OCS is a staged decision-making process. BOEM’s wind energy program occurs in four distinct phases, as described below.

- **Planning and Analysis.** The first phase is to identify suitable areas to be considered for wind energy leasing through collaborative, consultative, and analytical processes; including input from state Renewable Energy Task Forces, public information meetings, and other stakeholders.

- **Lease Issuance.** The second phase, issuance of a commercial wind energy lease, gives the lessee the exclusive right to subsequently seek BOEM approval for the development of the leasehold. The lease does not grant the lessee the right to construct any facilities; rather, the lease grants the lessee the right to use the leased area to develop its plans, which must be approved by BOEM before the lessee can move on to the next stage of the process (see 30 CFR § 585.600 and § 585.601).

- **Approval of a SAP.** The third stage of the process is the submission of a SAP, which contains the lessee’s detailed proposal for the construction of a meteorological tower, installation of meteorological buoys, or a combination of the two on the leasehold. The SAP allows the lessee to install and operate site assessment facilities for a specified term. The lessee’s SAP must be approved by BOEM before it conducts these “site assessment” activities on the leasehold. BOEM may approve, approve with modification, or disapprove a lessee’s SAP (see 30 CFR § 585.605–585.618).

- **Approval of a Construction and Operation Plan (COP).** The fourth stage of the process is the submission of a COP, a detailed plan for the construction and operation of a wind energy project on the lease. A COP allows the lessee to construct and operate wind turbine generators and associated facilities for a specified term. BOEM approval of a COP is a precondition to the construction of any wind energy facility on the OCS. As with a SAP, BOEM may approve, approve with modification, or disapprove a lessee’s COP (see 30 CFR § 585.620–585.638).

US Wind, Inc. was the winner of two leases, Lease OCS-A 0489 and Lease OCS-A 0490, comprising the entirety of the Maryland Wind Energy Area. (See: http://www.boem.gov/Maryland/).

BOEM implemented a Programmatic Agreement pursuant to 36 CFR § 800.14(b) to fulfill its obligations under Section 106 for the undertakings of lease issuance and approval of site assessment activities on the OCS offshore the Mid-Atlantic states. BOEM's Mid-Atlantic Programmatic Agreement was executed January 31, 2012, among the SHPOs of Delaware, Maryland, New Jersey and Virginia; the ACHP; the Narragansett Indian Tribe; and the Shinnecock Indian Nation. (See: http://www.boem.gov/MidAtlantic-PA-Executed/).

US Wind, Inc. submitted a SAP on November 23, 2015 describing the proposed construction, operation, maintenance, and decommissioning of a meteorological tower and associated equipment, along with the results of site characterization studies, including archaeological survey and historic property identification reports. BOEM determined that the approval of the meteorological tower SAP constituted an undertaking subject to Section 106 of the National Historic Preservation Act (54 U.S.C. 306108) and its implementing regulations (36 CFR § 800).

As defined by the signatories in the Programmatic Agreement, the APE for the approval of a SAP is considered as:

- The depth and breadth of the seabed potentially impacted by proposed seafloor/bottom-disturbing activities;
- The onshore viewshed from which lighted meteorological structures would be visible; and,
- Any areas on land used for staging the offshore work.

BOEM reviewed the US Wind, Inc. SAP and supporting documentation for the proposed construction, operation, maintenance, and decommissioning of a meteorological tower and associated equipment. Based on the review, BOEM made the following determinations:

- No historic properties were identified within the offshore APE for the proposed meteorological tower and associated equipment; and

- Historic properties were present within the visual onshore APE; however, as the visibility of the proposed meteorological tower was expected to be minimal and indistinguishable from existing vessel traffic and offshore buoys, the proposed undertaking would have no effect upon them as defined in 800.16(i).
The results of BOEM’s review were summarized in a Finding of No Historic Properties Affected dated April 13, 2016\(^1\). BOEM subsequently approved the SAP for the meteorological tower and associated equipment on March 22, 2018.

On May 4, 2020, US Wind Inc. submitted to BOEM a new SAP for the installation, operation, maintenance, and decommissioning of a meteorological and oceanographic buoy (referred to as the metocean buoy) in the same location as the previously proposed meteorological tower. In the new SAP, US Wind Inc. is proposing to use the metocean buoy in the near term and reserve the possible installation of the meteorological tower for a later date. The metocean buoy to be deployed is a floating Light Detection and Ranging (LiDAR) buoy which will float on the surface and be moored to the seafloor. BOEM provided comments on the May 4, 2020 SAP and, as result, US Wind Inc. submitted a new SAP for the metocean buoy in October 2020.

BOEM has determined that the approval of the new, metocean buoy SAP constitutes an undertaking subject to Section 106 of the National Historic Preservation Act (54 U.S.C. 306108) and its implementing regulations (36 CFR § 800). As previously stated, BOEM has implemented a Programmatic Agreement pursuant to 36 CFR § 800.14(b) to fulfill its obligations under Section 106 for the undertakings of lease issuance and approval of site assessment activities on the OCS offshore the Mid-Atlantic states. BOEM’s approval, approval with modifications, or disapproval of this new SAP for the installation, operation, maintenance, and decommissioning of a metocean buoy is the subject of this Finding.

The Undertaking

US Wind, Inc. proposes to install, operate and maintain a metocean buoy at the same location as the previously approved meteorological tower: at the northern boundary of Lease OCS-A 0490 in OCS Block 6725 located approximately 17.4 miles (28 kilometers [k]) offshore Ocean City, Maryland (Figure 1). The purpose of the proposed project is to measure and collect site-specific data in the Maryland Wind Energy Area (WEA) that is necessary for the design and construction of an offshore wind facility.

The metocean buoy will consist of an EOLOS FLS200 LiDAR Buoy mounted to the seafloor using a steel chain mooring connected to a gravity-based anchor weight (Figure 2). The metocean buoy is 13.1 feet (4 m) wide and 13.1 ft (4 m) long with a height of 10.2 ft (3.1 m) above sea level (Figure 3). The buoy will be equipped with the proper safety lighting, markings, and signal equipment per United States Coast Guard (USCG) Private Aids to Navigation (PATON) requirements. The gravity-based anchor mounting the buoy to the seafloor is a single, 5.5-ton (5,000 kilograms [kg]) anchor with

---

\(^1\) The BOEM Finding of No Historic Properties Affected, entitled Finding of No Historic Properties Affected for the Approval of the US Wind Inc. Site Assessment Plan on the Outer Continental Shelf Offshore Maryland, can be found on BOEM’s website at: https://www.boem.gov/sites/default/files/renewable-energy-program/State-Activities/HP/MD-SAP-Finding-of-No-Historic-Properties-Affected.pdf

4
an approximately 10.8 ft$^2$ (1 m$^2$) anchor footprint and 302 ft (92 m) of 38 millimeter (mm) and 26 mm anchor chain. The mooring chain sweep radius (i.e., the area on the seafloor around the anchor where the chain will drag along the seafloor) is a 213 ft (65 m) radius around the anchor (ESS Group, Inc. 2020).

Figure 1. Project location (ESS Group, Inc. 2020).
The metocean buoy will be equipped with a ZX 300M LiDAR SYSTEM to measure and collect data on wind, waves, and currents. The system can measure wind speed
and direction at approximately 3.1 m (10.2 ft) above sea level using the weather transmitter mounted to the mast of the buoy. Buoy systems also measure sea state characteristics (wave direction, wave height, current velocity and direction, water temperature) and meteorological parameters (air temperature/humidity, air pressure, precipitation). The buoy will also be equipped with the following biological sensors: avian acoustic recorder, bat ultrasonic recorder, marine mammal hydrophone, and bird and fish nanotag detectors (ESS Group, Inc. 2020).

Installation of the metocean buoy will be completed using a deployment vessel. The vessel will deploy the system using the “anchor last” method, in which the metocean buoy is deployed over the stern while the vessel approaches the anchoring location. Approximately 1 nautical mile (nm) from the deployment location the buoy will be lifted into the water behind the vessel. The mooring chain will be slowly released as the vessel approaches the deployment site, towing the buoy behind the vessel. Once in position the crew will increase the amount of chain out by releasing sections of chain. This process will continue until all chain is overboard and the anchor remains on deck. The anchor will then be slowly lowered to the seabed utilizing the mooring chain. At no time during the operation are chain or the anchor permitted to “free-fall” (ESS 2020).

Area of Potential Effects

As defined in the Section 106 regulations at 36 CFR § 800.16(d), the APE is the “geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.”

As defined by the signatories in the Programmatic Agreement, the APE for the approval of a SAP is considered to be:

- The depth and breadth of the seabed potentially impacted by proposed seafloor/bottom-disturbing activities;
- The onshore viewshed from which lighted meteorological structures would be visible; and,
- Any areas on land used for staging the offshore work.

Offshore APE

The offshore APE is defined as a 984 ft (300 m) radius footprint surrounding the location of the metocean buoy anchor location (Figure 3). The horizontal offshore APE for the metocean buoy is the same as the horizontal offshore APE for the previously proposed meteorological tower. This area encompasses the location of any potential bottom disturbing activities related to installation, operation, maintenance and decommissioning of the proposed metocean buoy and includes the seafloor anchor location. The vertical
extent of potential disturbance is limited to the surface of the seafloor and less than 6.56 ft (2 m) below the seafloor where the weight of the anchor could cause sediment disturbance.

Figure 3. Illustration of the offshore APE (ESS Group, Inc. 2016).
Viewshed APE

ESS Group, Inc. assessed potential visual impacts from the installation, operation, maintenance, and decommissioning of the metocean buoy in the SAP (ESS Group, Inc. 2020). As previously stated, the metocean buoy will be approximately 10.2 ft (3.1 m) tall above the ocean surface. The buoy will be located more than 28 km (15 nm) from the closest land near Ocean City and Berlin, Maryland and, as a result, it will not be visible from shore. As a result, BOEM has determined that, since the proposed metocean buoy will not be visible from shore, there is no onshore viewshed APE for the proposed undertaking.

Onshore Staging APE

US Wind proposes to utilize existing yards and port facilities in Avalon, New Jersey for the staging of metocean deployment. The metocean buoy will be transported to the WEA by a deployment vessel from an existing port facility in Avalon, New Jersey. Because the site assessment activities will not involve expansion or modification of port infrastructure, onshore staging activities are not defined as part of the APE for the approval of the US Wind, Inc. SAP.

Consultation with Appropriate Parties and the Public

BOEM initiated consultation for the development of the Programmatic Agreement in 2011 through letters of invitation, telephone calls, emails, meetings, webinars, and the circulation and discussion of the agreement that guides the Section 106 consultation for the undertaking considered in this Finding. This outreach and notification included contacting over 85 individuals and entities, including federally-recognized tribes, local governments, SHPOs, state-recognized tribes, and the public (Table 1). Additionally, BOEM conducted formal government-to-government consultation with the Narragansett Indian Tribe and the Shinnecock Indian Nation, both of whom chose to consult with BOEM and participate in the development of the Programmatic Agreement. Furthermore, BOEM identified and contacted 16 state-recognized tribes, one of whom, the Lenape Tribe of Delaware, chose to consult with BOEM and participate in the development of the Agreement.

The Section 106 consultation that was completed by BOEM prior to the issuance of commercial leases within the Maryland WEA is detailed in the June 25, 2012, Finding of No Historic Properties Affected for the Issuance of Commercial Leases within the Maryland Wind Energy Area (available online at: http://www.boem.gov/MD_DocumentationSupport-Finding-No-Historic-Properties-Affected). Information and comments provided by the parties as part of the lease issuance consultation were also considered for the undertaking of SAP approval as reviewed in this Finding.

On December 18, 2013, BOEM published in the Federal Register a Proposed Sale Notice for Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore
Maryland (78 FR 76643-76652). This notice, in part, solicited public comment to inform the bureau’s environmental review.

One response of relevance to BOEM’s Section 106 review for SAP approval within the Maryland WEA was received from the NPS (Appendix A). The NPS expressed concern regarding potential impacts from commercial wind energy development to Assateague Island National Seashore located along the coast of Maryland and Virginia. In particular, the NPS raised concern regarding potential impacts to night skies and natural soundscapes from offshore wind turbines equipped with FAA and USCG safety lighting.

The NPS also states that they are not aware of the presence of any National Historic Landmarks (NHL) that could be impacted by renewable energy development with the Maryland WEA, but that there may be other properties listed in, or eligible for listing in, the National Register of Historic Places within the project area and that the appropriate SHPOs should be contacted for additional information. NPS additionally requested to participate in the environmental review for any SAPs or COPs considered offshore Maryland.

Table 1. Entities Solicited for Information and Comments Regarding Historic Properties within the Mid-Atlantic WEAs During Development of the Programmatic Agreement.

<table>
<thead>
<tr>
<th>Federally-recognized Tribes</th>
<th>State-recognized Tribes</th>
<th>Local Governments</th>
<th>Additional Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aroostook Band of Micmacs</td>
<td>Lenape Indian Tribe of Delaware</td>
<td>Atlantic City</td>
<td>Town of Ocean City</td>
</tr>
<tr>
<td>Catawba Indian Nation</td>
<td>Nanticoke Indian Association, Inc.</td>
<td>Berlin, MD</td>
<td>Town of Ocean City Council</td>
</tr>
<tr>
<td>Chickahominy Tribe</td>
<td>Nanticoke Lenni-Lenape Indians</td>
<td>Board of Supervisors Accomack County</td>
<td>Town of Ocean View</td>
</tr>
<tr>
<td>Delaware Nation (Anadarko)</td>
<td>Nottoway Indian Tribe</td>
<td>City of Chesapeake</td>
<td>Town of South Bethany</td>
</tr>
<tr>
<td>Delaware Nation (Bartlesville)</td>
<td>Patawomeck Indian Tribe</td>
<td>City of Hampton</td>
<td>Worcester County Commission</td>
</tr>
<tr>
<td>Delaware Nation (Emporia)</td>
<td>Powhatan Renape Nation</td>
<td>City of Lewes</td>
<td>--</td>
</tr>
<tr>
<td>Eastern Band of Cherokee Indians</td>
<td>Rampanough Mountain Indians</td>
<td>City of Millville</td>
<td>--</td>
</tr>
<tr>
<td>Eastern Chickahominy Tribe</td>
<td>--</td>
<td>City of Newport News</td>
<td>--</td>
</tr>
<tr>
<td>Eastern Shawnee Tribe of Oklahoma</td>
<td>--</td>
<td>City of Norfolk</td>
<td>--</td>
</tr>
<tr>
<td>Houlton Band of Maliseet Indians</td>
<td>--</td>
<td>City of Portsmouth</td>
<td>--</td>
</tr>
<tr>
<td>Mashpee Wampanoag Tribe</td>
<td>--</td>
<td>City of Rehoboth</td>
<td>--</td>
</tr>
<tr>
<td>Mattaponi Tribe</td>
<td>--</td>
<td>City of Suffolk</td>
<td>--</td>
</tr>
</tbody>
</table>
During preparation of the meteorological tower SAP, US Wind, Inc. directly contacted the Delaware SHPO and shared information regarding the viewshed model and visual simulations of the proposed meteorological tower. The Delaware SHPO provided a written response on January 14, 2016, indicating that two historic properties are present within the viewshed APE within the state of Delaware: the Indian River Life Saving Service Station (S02109) and the Fenwick Island Lighthouse Station (S00187) (Appendix B). Based on this information, the Delaware SHPO provided the determination that the proposed meteorological tower would have no adverse effect on historic properties within Delaware based on the distance of the tower from shore and the consideration that the nighttime FAA lighting on the tower would not be notable when compared with current shipping traffic.

BOEM initiated Section 106 consultation for the undertaking of approving the US Wind, Inc. meteorological tower SAP in February 2016. BOEM initiated consultation through letters to the Delaware SHPO, Maryland SHPO, ACHP, Narragansett Indian Tribe,
Shinnecock Indian Nation, NPS and Lenape Tribe of Delaware (Appendix C). This correspondence shared information regarding the proposed undertaking, the geographic extent of the APE and the results of historic property identification surveys; provided a draft of this Finding which also summarized the undertaking, APE and results of historic property identification surveys; and solicited from the consulting parties additional information or concerns regarding historic properties or potential effects within the APE. A response was received from the Maryland Historical Trust concurring with BOEM’s determination of no historic properties affected for this undertaking (Appendix D).

Comments were also received from the Shinnecock Indian Nation (Appendix E). The comments state that the Shinnecock people are traditional whalers and fishermen who have used coastal waterways for travel and trade, including southern navigation routes in the Mid-Atlantic for canoe journey and whaling. The comments state that due to the Nation’s historical use of waterways for canoe journeys, trade and travel, as well as proud history of whaling along the Mid-Atlantic coast and beyond, the Nation may have historical properties within the project area that could be disturbed by the activities of U.S. Wind Inc.

Regarding the Programmatic Agreement, the Shinnecock Indian Nation requested a summary regarding previous consultation and interaction between the nation and the bureau. This was provided to the Shinnecock Indian Nation by BOEM via email April 4, 2016. The Shinnecock Indian Nation requested that the Unkechaug Nation, a state recognized tribe located on Long Island, NY be included as a consulting party to this and future undertakings. BOEM has included the Unkechaug Nation as a consulting party to this undertaking and will provide them with a copy of this Finding.

II. Description of the Steps Taken to Identify Historic Properties

BOEM’s renewable energy regulations require a lessee to provide the results of surveys with its SAP for the areas affected by the activities proposed in the plan (see 30 CFR 585.610(b)), including the results of an archaeological resource identification survey. BOEM provides guidelines for acquiring this information and documenting the results of these activities. See Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585 at: http://www.boem.gov/Guidelines_for_Providing_Archaeological_and_Historic_Property_Information_Pursuant_to_30CFR585/, which advise lessees to survey the entirety of the area they propose to impact. Additionally, BOEM requires lessees to provide the results of onshore historic property identification activities conducted in accordance with the standards and guidelines of the relevant SHPOs or Tribal Historic Preservation Officers, if on tribal lands.

BOEM has reviewed one historic property identification report included with the US Wind, Inc. metocean buoy SAP: Marine Archaeological Resources Assessment for the US Wind Offshore Energy Project: Metocean Buoy Deployment Lease Area OCS-A0490 Offshore Maryland (Schmidt et al. 2020). This report is attached to this Finding (Appendix A) and the results are summarized below.
Marine Archaeological Resources Assessment

A high-resolution geophysical survey utilizing a multibeam echo sounder, side scan sonar, magnetometer and CHIRP sub-bottom profiler was conducted within the offshore APE for the metocean buoy in accordance with BOEM’s Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585. In addition to the geophysical surveys, a geotechnical boring was also conducted at the site of the proposed meteorological tower. These studies were originally performed in 2015 in part to inform the engineering design of the meteorological tower, but also in part to identify historic properties within the proposed meteorological tower offshore APE.

The horizontal offshore APE for currently proposed metocean buoy is the same as the horizontal offshore APE for the meteorological tower originally proposed by US Wind Inc. The vertical offshore APE for the proposed metocean buoy is significantly shallower, extending approximately 6.56 ft (2 m) below the seafloor compared to the 177 ft (54 m) vertical APE for the meteorological tower. BOEM has determined that since the horizontal and vertical offshore APEs for the proposed metocean buoy are within the areas previously investigated for the meteorological tower SAP, that the previous geophysical and geotechnical investigations performed in 2015 are sufficient for the identification of historic properties for the proposed metocean buoy SAP.

A Qualified Marine Archaeologist conducted line-by-line analyses of the post-processed data collected during the 2015 investigations to identify anomalies with potential to represent submerged cultural resources. This included the identification of both submerged paleolandforms with potential for the presence of drowned pre-contact archaeological sites and historic period shipwrecks. In addition, background research was conducted to develop pre-contact and historic period contexts and provide a study of local geomorphic processes.

No side scan sonar targets were identified within the APE. Thirteen magnetic anomalies were identified within the offshore APE; however, analysis of both raw and contoured data and consideration of the complexity, intensity and duration of the magnetic signatures, resulted in the determination that these anomalies are not likely to represent submerged historic properties (Schmidt et al. 2020). Sub-bottom profiler data were collected on every survey track line and analyzed to identify any paleolandscape features that may have been located within the offshore APE. Processing and review of this data indicated that no paleo-channels or other buried landforms are present within the offshore APE (Schmidt et al. 2020).

III. The Basis for the Determination of No Historic Properties Affected

BOEM has considered information gathered during consultation with the appropriate parties and the public and through review of the historic property identification report provided in support of the new US Wind, Inc. metocean buoy SAP. A good faith effort has been made to identify historic properties within the offshore and onshore APE. The results of these identification surveys are documented in the Marine Archaeological
Resources Assessment for the US Wind Offshore Energy Project: Metocean Buoy Deployment Lease Area OCS-A0490 Offshore Maryland (Schmidt et al. 2020). No historic properties have been identified within the offshore APE

Although effects to historic properties may occur from an unanticipated, post-review discovery during installation of the metocean buoy, the required implementation of the unanticipated discoveries clause at 30 CFR § 585.802 and the inclusion of a post-review discoveries clause as a condition of SAP approval, ensures that any discoveries are reported and reviewed under the National Historic Preservation Act.

REFERENCES

ESS Group, Inc.
2016 Visual Resources Assessment. Section 3.11 of Site Assessment Plan.

2020 Site Assessment Plan (SAP): Maryland Offshore Wind Project Lease OCS-A 0490.

Schmidt, James S., Kathryn A. Ryberg, David A. McCullough, Martha Williams, Greg Brooks, and Rebecca Larson