

JAN 30 2014

**Finding of No Historic Properties Affected
For the Issuance of a Research Lease
Under Section 238 of the Renewable Energy Regulations
For Renewable Energy Research Activities on the Outer Continental Shelf
Offshore Virginia**

Finding

The Bureau of Ocean Energy Management (BOEM) has made a Finding of No Historic Properties Affected for the issuance of a research lease (undertaking), under Section 238 of the renewable energy regulations, for renewable energy research activities on the Outer Continental Shelf (OCS) offshore Virginia (30 CFR 585.238). Through lease stipulations, BOEM will require the lessee to avoid, during geotechnical sampling activities, any potential historic properties identified through high-resolution geophysical surveys.

Documentation in Support of the Finding

I. Description of the Undertaking

Background

The Energy Policy Act of 2005, Pub. L. No. 109-58, added Section 8(p)(1)(C) to the Outer Continental Shelf Lands Act (OCSLA), which grants the Secretary of the Interior the authority to issue leases, rights-of-use and easement (RUE) grants, or right-of-way (ROW) grants 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 (MMS), now BOEM. On April 22, 2009, BOEM promulgated final regulations implementing this authority at 30 CFR 585.

Under the renewable energy regulations, BOEM may issue leases, ROW grants and RUE grants to Federal agencies and states for renewable energy research activities that support the future production, transportation, or transmission of renewable energy, after giving public notice, determining that there is not competitive interest in the area, and complying with all relevant Federal statutes. The purposes, issuance process, and terms of this kind of lease or grant may be established by BOEM and a Federal agency or a state on a case-by-case basis. *See* 30 CFR 585.238. In the case of the proposed research activities offshore Virginia, which is the subject of this Finding, BOEM will follow a lease issuance process and staged decision-making process identical to the framework laid out for the issuance of commercial leases, with one exception: BOEM will accept a Research Activities Plan (RAP) that meets the information requirements of 30 CFR 585.626 and 585.627, which are in support of a Construction and Operations Plan (COP).

Under the renewable energy regulations, the issuance of leases and subsequent approval of renewable energy research activities on the OCS is a staged decision-making process. A lease gives the lessee the exclusive right to subsequently seek BOEM approval for activities on 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. *See* 30 CFR 585.600 and 585.601.

The next stage of the process is the submission and review of a Site Assessment Plan (SAP), which contains the lessee's detailed proposal for the construction of facilities such as a meteorological tower and/or the installation of meteorological buoys on the leasehold. *See* 30 CFR 585.605 - 585.618. 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 585.613.

The final stage of the process is the submission and review of a RAP, a detailed plan for the construction and operation of facilities such as a technology testing project on the leasehold. *See* 30 CFR 585.620-638 for information requirements for a COP, which are identical to a RAP. BOEM approval of a RAP is a precondition to the construction of a research facility on the OCS. *See* 30 CFR 585.628. As with a SAP, BOEM may approve, approve with modification, or disapprove a lessee's RAP. *See* 30 CFR 585.628.

The regulations also require a lessee to provide the results of surveys with its SAP and RAP or COP for the areas affected by the activities proposed in each plan (*see* 30 CFR 585.610(b) and 585.626(a), respectively), including the results of a shallow hazards survey, geological survey, geotechnical survey, and archaeological resource identification survey. BOEM refers to these surveys as "site characterization" activities and provides guidelines for the submission of the results of these activities. *See also Guidelines for Providing Geological and Geophysical, Hazards, and Archaeological Information Pursuant to 30 CFR Part 585* at: <http://www.boem.gov/Renewable-Energy-Program/Regulatory-Information/GGARCH.aspx>, which advise lessees to survey the entirety of the area they propose to impact.

In February 2012, BOEM published a single environmental assessment (EA) for two stages of its wind energy program (the issuance of leases and the approval of SAPs) for areas offshore New Jersey to Virginia, pursuant to the National Environmental Policy Act (NEPA) (42 USC § 4321 et seq.), and published a Finding of No Significant Impact (FONSI) as a result (USDOJ, BOEM, 2012a). Regarding impacts to cultural resources, the EA concluded: "the information generated from the lessee's initial site characterization activities, the unanticipated discoveries requirement, and existing regulatory measures would make the potential for seafloor/bottom-disturbing activities (e.g. core samples, anchorages...) to cause damage to historic resources very low." The EA included consideration of the geographic area of this proposed research lease.

During the preparation of the EA, BOEM determined that the proposed action constitutes multiple undertakings, subject to Section 106 of the National Historic Preservation Act (16 USC § 470f), and its implementing regulations (36 CFR 800):

(1) Lease issuance (including reasonably foreseeable consequences associated with shallow hazards, geological, geotechnical, and archaeological resource surveys); and,

(2) Approval of a SAP (including reasonably foreseeable consequences associated with the installation and operation of a meteorological tower and/or meteorological buoys).

Because the decisions to issue leases and approve SAPs are complex (staged) and multiple, and because BOEM may not have all the results of archaeological surveys prior to the issuance of leases and as such will be conducting its historic properties identification and evaluation effort in phases (36 CFR 800.4(b)(2)), BOEM drafted and implemented a Programmatic Agreement (Agreement) pursuant to 36 CFR 800.14(b) with its consulting parties, including the Advisory Council on Historic Preservation (ACHP) (Appendix A). This Agreement provides for Section 106 consultations to continue through both the leasing process and BOEM's decision-making process regarding the approval, approval with modification, or disapproval of lessees' SAPs and will also allow for a phased identification and evaluation of historic properties (36 CFR 800.4(b)(2)). Furthermore, the Agreement establishes the process to determine and document the area of potential effects (APE) for each undertaking; to further identify historic properties located within each undertaking's APE, which are listed in or eligible for listing in the National Register of Historic Places (National Register); to assess the potential adverse effects; and to avoid, reduce, or resolve any such effects through the process set forth in the Agreement.

On May 21, 2013, BOEM published a Finding of No Historic Properties Affected for the issuance of commercial leases within the Virginia Wind Energy Area (WEA). On September 4, 2013, a large portion of the area considered in the EA was successfully auctioned for commercial development.

On December 12, 2012, the Department of Energy announced funding awards for seven proposed "Offshore Wind Demonstration Projects" off the nation's coasts. One of these proposed projects is located on the OCS offshore Virginia, to the west of the commercial lease area. The purpose of the monetary awards is to enhance the deployment of stronger, more efficient offshore wind energy technologies. The Commonwealth of Virginia, Department of Mines, Minerals and Energy (VA DMME), submitted a research lease application to BOEM on February 8, 2013, for the installation and operation of two 6-megawatt (MW) turbines, ancillary metocean facilities, a meteorological tower or buoy and installation of associated cabling to shore adjacent to the commercial lease area (Appendix B). The nomination requests six specific aliquots (i.e., sub-blocks) in Official Protraction Diagram NJ18-11, Currituck Sound Blocks 6061 and 6111 (Figure 1). Though these six aliquots were included in BOEM's 2012 FONSI (USDOI, BOEM, 2012a), BOEM's Section 106 Finding of No Historic Properties Affected for the commercial lease did not include this geographic area (USDOI, BOEM 2012b).

On July 30, 2013, BOEM published a "Public Notice of an Unsolicited Request for an OCS Research Lease, Request for Competitive Interest, and Request for Public Comment" in the Federal Register for a 30-day comment period to obtain public input on

a research proposal received from the VA DMME, its potential environmental consequences, and the use of the area in which the proposed project would be located. The notice was published under Docket ID BOEM-2013-0020. BOEM also asked whether there were other entities interested in obtaining a renewable energy lease of the same scale within the same area identified by DMME which would support potential wind energy development. On December 6, 2013, DMME submitted a RAP to BOEM, which BOEM is reviewing for completeness and sufficiency. The RAP, its results, and its sufficiency will be the subject of a separate Section 106 review as BOEM initiates its NEPA analyses in the near future.

This document outlines BOEM's compliance with Section 106 and documents the agency's finding of *No Historic Properties Affected* (Finding) for the proposed undertaking of issuing a research lease under 36 CFR 800.4 (d)(1). 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 II.K of the Agreement (see above and Appendix A). This Finding and supporting documentation are being provided to the Virginia State Historic Preservation Officer (SHPO), the Narragansett Indian Tribe, the Shinnecock Indian Nation, the Lenape Indian Tribe, and the ACHP as consulting parties under the Agreement. The Finding and supporting documentation will be made available for public inspection on BOEM's website prior to BOEM approving the undertaking.

As discussed above, although BOEM has previously prepared a similar document for the undertaking of issuing commercial leases within the commercial lease area, that document did not include the proposed research lease area within its consideration (USDOL, BOEM, 2012b). Therefore, BOEM determined that subsequent documentation of its Finding is required to fulfill its Section 106 review responsibilities under the Agreement.

Project Location and Description

The area proposed for leasing consists of six OCS sub-blocks within the Currituck Sound Protraction No NJ18-11: from Block Number 6061, sub-blocks H, L, and P and from Block Number 6111, sub-blocks D, H, and L. The six sub-blocks requested by DMME are located immediately adjacent to the western edge of the commercial lease area (Figure 1). The western edge of the area is approximately 42.3 kilometers (km; 22.8 nautical miles [nm]) or 26.3 statutory miles from Virginia Beach and the eastern edge is approximately 43.5 km (23.5 nm) from Virginia Beach. The entire area is approximately 864 hectares; (2.5 square nm; 2,135 acres). The proposed research lease would grant the lessee(s) the right, subject to the terms and conditions of the lease, to submit plans for renewable energy research activities on the leasehold.

The proposed undertaking includes only the issuance of a research lease and considers only the execution of associated site characterization activities on the leasehold. Site characterization activities include both high resolution geophysical (HRG) surveys as well as geotechnical (sub-bottom) sampling. Although BOEM does not issue permits or approvals for these site characterization activities, it will not consider approving a lessee's plans if the required survey information is not included. Since the survey

considered site characterization activities as actions connected to the issuance of lease(s). In the case of this particular lease, the DMME has already conducted a significant amount of site characterization work. While this normally would have resulted in BOEM finding that the issuance of a lease has no potential to affect a historic property, (since site characterization work is the only connected action resulting from lease issuance before a plan is reviewed), it does not prevent the DMME from conducting additional site characterization work subsequent to lease issuance and before plan approval. For that reason, BOEM must find no historic properties affected by virtue of lease stipulations requiring the avoidance, during site characterization activities, of historic properties which were or may be subsequently identified.

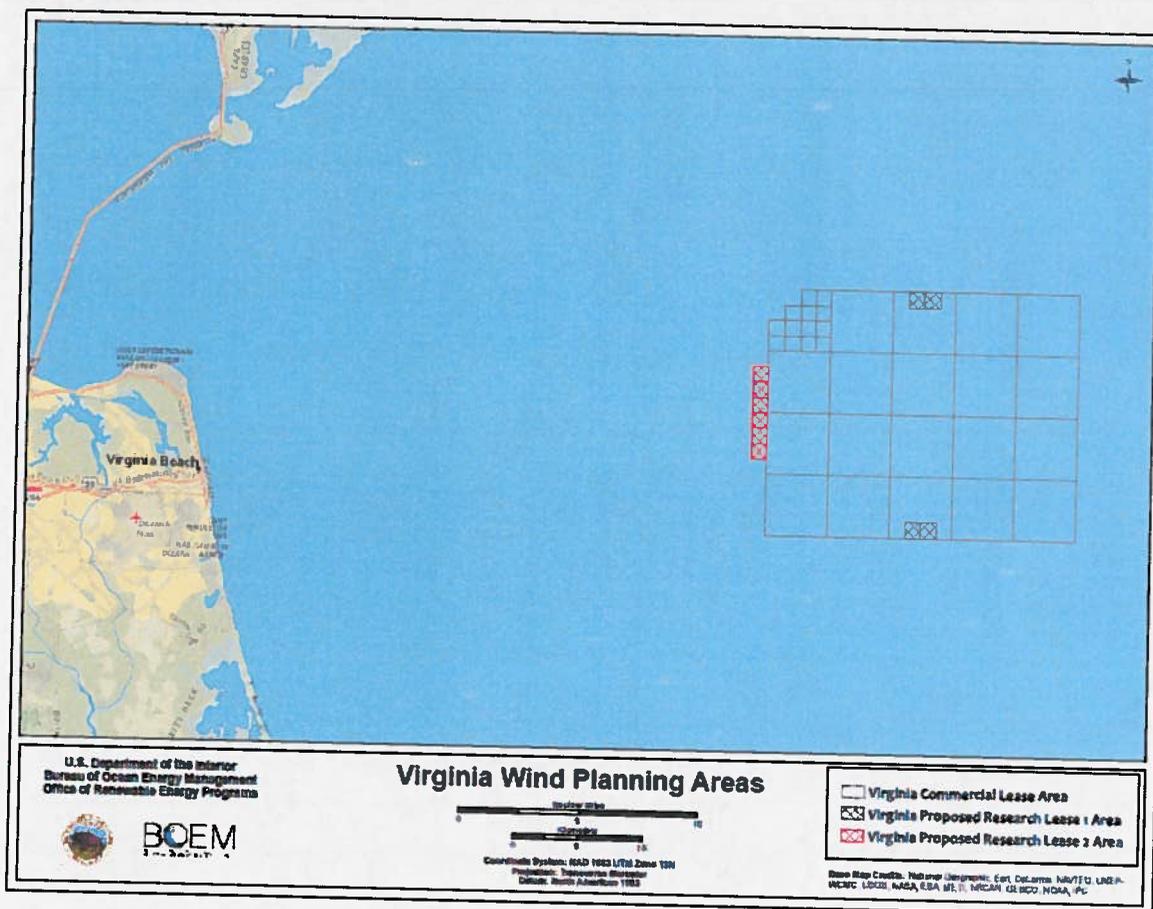


Figure 1. Location of the proposed research lease area located just west of the Virginia commercial lease area. The aliquots in red depict the subject of the present document.

Lessee(s) must submit the results of site characterization surveys with their SAP (30 CFR 585.610 and 585.611) and RAP or COP (30 CFR 585.626(a) and 585.627). The purpose of the HRG survey would be to acquire geophysical shallow hazards data, information pertaining to the presence or absence of archaeological resources, and to conduct bathymetric charting. BOEM anticipates that the HRG surveys would be conducted using the following equipment: depth sounder, magnetometer, side-scan sonar, and

sub-bottom profiler. This equipment does not come in contact with the seafloor and is typically towed from a moving survey vessel that does not require anchoring.

Geotechnical exploration is conducted to assess the suitability of shallow foundation soils to support a structure or transmission cable under any operational and environmental conditions which might be encountered (including extreme events), and to document soil characteristics necessary for the design and installation of all structures and cables. Geotechnical exploration obtains physical and chemical data on surface sediments to provide BOEM with a detailed geotechnical evaluation of the structure's foundation(s) based on analysis of soil borings from the site (e.g., 30 CFR 585.626(4)). The results allow for a thorough investigation of the stratigraphic and geoengineering properties of the sediment potentially affecting the foundations or anchoring systems of a wind energy project, which would be necessary for BOEM to consider a RAP or COP. The renewable energy regulations require sediment testing at the proposed site of any proposed bottom-founded structure. *See* 30 CFR 585.610(b) (SAP) and 585.626(a) (RAP or COP). BOEM requests that one sub-bottom sample would be taken at the foundation location for each anticipated structure that would later be proposed in a SAP, RAP, or COP.

Area of Potential Effects

As defined at 36 CFR 800.16(d), the Area of Potential Effects (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.

Specific to the undertaking (the issuance of a research lease and subsequent site characterization activities) under discussion in this Finding, the APE is considered as the depth and breadth of the seabed potentially impacted by any proposed seafloor/bottom-disturbing activities. Included under these site characterization activities is geotechnical exploration, which may include the collection of core samples or soil borings and anchorages that could directly impact historic properties on the seafloor, if present.

Based on the distance from shore and the manner in which site characterization studies will likely occur, BOEM has concluded the equipment and vessels performing these activities will be indistinguishable from existing lighted vessel traffic. Therefore, BOEM has not defined as part of the APE onshore areas from which the site characterization activities would be visible. In addition, there is no indication the issuance of a lease and subsequent site characterization studies will involve expansion of existing port infrastructure. Therefore, onshore staging activities are not considered as part of the APE for this specific undertaking.

Consultations for Undertakings related to Wind Energy Development offshore Virginia

BOEM initiated consultation for the issuance of commercial wind energy development offshore Virginia in 2011, through letters of invitation, telephone calls, emails, meetings, webinars, and the circulation and discussion of the Agreement, in draft, that guides the

Section 106 consultations for multiple undertakings, including the one forming the subject of 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 has 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 Agreement. The Nanticoke Lenni-Lenape Tribal Nation of New Jersey, the Lenape Indian Tribe of Delaware, and the Nanticoke Indian Tribe of Delaware (together, the Confederation of Sovereign Nanticoke-Lenape Tribes, an intertribal union between historically and genealogically interrelated indigenous tribes remaining in the area of the Delaware Bay) also chose to consult with BOEM and participate in the development of the Agreement.

On February 9, 2011, BOEM formally notified the public through the *Federal Register*, Vol.76, No. 27 (pages 7226-7228), of its intent to prepare an EA and that it would involve Federal agencies, states, tribes, local governments, wind power developers, and the public, as BOEM conducted the NEPA process and engaged in consultation, including consultation under Section 106 of the National Historic Preservation Act.

On March 11, 2011, BOEM's Federal Preservation Officer, Dr. Brian Jordan, sent letters to potential consulting parties notifying them BOEM had identified an area offshore Virginia and intended to prepare a regional EA considering the environmental consequences of:

- (1) issuing leases;
- (2) site characterization activities that lessees may undertake on those leases (e.g., geophysical, geotechnical, archaeological and biological surveys); and
- (3) the subsequent approval of site assessment activities on the leaseholds (e.g., installation and operation of meteorological towers and buoys) in specific areas identified offshore Delaware, Maryland, New Jersey, and Virginia (see Appendix C).

BOEM notified the potential consulting parties it had determined that issuing leases and subsequently approving site assessment activities in these areas constituted undertakings subject to Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f), and its implementing regulations (36 CFR 800).

Multiple responses to BOEM's March 11, 2011 letters were received in the following months. A response from the Narragansett Indian Tribe detailed both the need for better protocols for identifying ancestral submerged paleolandscapes and recommending an inter-tribal panel to inform the protocol. The Narragansett recommended that, for the purpose of gathering oral history indicators of the presence or absence of submerged settlements, BOEM should form a panel of federally-recognized tribal historic preservation advisors comprised of Atlantic coastal Tribal Historic Preservation Officers (THPOs) and augmented by state-recognized coastal tribes. The Narragansett suggested that the panel would provide data to BOEM which could be incorporated into a database

of likely areas that should be investigated by sub-bottom profiling in search of scientific evidence of submerged settlements. The results of these surveys would provide known areas of cultural sensitivity, guiding planning activities and avoidance areas for development activities.

Table 1.

Entities Solicited for Information and Concerns Regarding Historic Properties and the Proposed Undertaking

Federally-recognized Tribes	State-recognized Tribes	Local Governments	Local Governments
Absentee Shawnee Tribe of Oklahoma	Cheroenhaka (Nottoway) Indian Tribe	Accomack-Northampton Planning District Commission	Town of Fenwick
Aroostook Band of Micmacs	Chickahominy Tribe	Atlantic City	Town of Ocean City
Catawba Indian Nation	Eastern Chickahominy Tribe	Berlin, MD	Town of Ocean City Council
Delaware Nation (Anadarko)	Lenape Indian Tribe of Delaware	Board of Supervisors Accomack County	Town of Ocean View
Delaware Nation (Bartlesville)	Mattaponi Tribe	City of Chesapeake	Town of South Bethany
Delaware Nation (Emporia)	Monacan Indian Nation	City of Hampton	Worcester County Commission
Eastern Band of Cherokee Indians	Nansemond Tribe	City of Lewes	
Eastern Shawnee Tribe of Oklahoma	Nanticoke Indian Association, Inc.	City of Millville	Additional Organizations
Houlton Band of Maliseet Indians	Nanticoke Lenni-Lenape Indians	City of Newport News	Lower Eastern Shore Heritage Council, Inc.
Mashpee Wampanoag Tribe	Nottoway Indian Tribe	City of Norfolk	Maryland Commission on Indian Affairs
Miccosukee Tribe	Pamunkey Tribe	City of Portsmouth	Preservation Maryland
Narragansett Indian Tribe	Patawomeck Indian Tribe	City of Rehoboth	
Oneida Indian Nation	Powhatan Renape Nation	City of Suffolk	
Onondaga Nation	Rampanough Mountain Indians	City of Virginia Beach	
Passamaquoddy Tribe (Indian Township)	Rappahannock Tribe	Dennis Township	
Passamaquoddy Tribe (Pleasant Point)	Upper Mattaponi Tribe	Egg Harbor City	
Penobscot Nation		Egg Harbor Township	
Saint Regis Mohawk Tribe		Hampton Roads Planning District Commission	
Seminole Tribe		James City County	
Shinnecock Indian Nation		Northampton/Accomack City	
Stockbridge-Munsee Community of Mohican Indians		Ocean City	
Tuscarora Nation		Office of Congressman Michael N. Castle	
Wampanoag Tribe of Gay Head (Aquinnah)		Ship Bottom Borough	
		Stafford Township	
		Sussex County	
		Sussex County Council	
		Town of Bethany	
		Town of Dewey Beach	

One response was received from a state-recognized tribe. The Nanticoke Lenni-Lenape Tribal Nation of New Jersey responded, "the area[s] delineated on the map involve the traditional offshore areas of our tribe." In response, BOEM requested that the Nanticoke Lenni-Lenape Tribal Nation of New Jersey, the Lenape Indian Tribe of Delaware, and the Nanticoke Indian Tribe of Delaware (together, the Confederation of Sovereign Nanticoke-Lenape Tribes, an inter-tribal union between historically and genealogically interrelated indigenous tribes remaining in the area of the Delaware Bay) join the development of the Programmatic Agreement to guide Section 106 consultations offshore Virginia. Additionally, BOEM will continue outreach to the Nanticoke Lenni-Lenape Tribal Nation and other tribes potentially affected by the proposed undertaking, and will continue to consult on relevant issues to ensure their concerns are taken into consideration.

During the preparation of the EA, BOEM recognized that the agency had limited information regarding the presence of historic properties within the areas offshore New Jersey to Virginia and would not have obtained or conducted an archaeological identification survey prior to the issuance of leases or the completion of the EA. Since the complete identification of historic properties would not take place until after leases were issued, BOEM drafted a programmatic agreement to establish the process through which consultation would continue regarding all information generated as a result of ongoing site characterization activities (see above, and Appendix A). This could then inform BOEM's future decisions regarding the approval, approval with modification, or disapproval of lessees' SAPs and COPs (30 CFR 585). Using a phased approach set out in a programmatic agreement would allow the consulting parties to participate in determining how potential adverse effects to newly identified historic properties would be addressed when BOEM considered lessees' plans, either by avoidance or mitigation.

With the consulting parties, BOEM will continue to involve the public through outreach, notifications, and request for comment throughout the Section 106 consultation process for both the issuance of renewable energy leases and consideration of subsequent SAPs. This includes publishing in the *Federal Register Notices* and on BOEM's website, requesting information on historic properties and concerns regarding the undertakings.

In September through November 2011, BOEM sent letters to all potential consulting parties, including those suggested by the SHPOs, notifying them BOEM had prepared the draft regional EA mentioned herein and wanted to consult on the matter (see Appendix D for a copy of the version sent to the Virginia SHPO, noting that a similar letter was sent to all parties listed in Table 1). BOEM requested the parties review the EA and offer any information not previously shared related to known historic sites or cultural properties within the areas that may be affected by leasing, site characterization activities, and the placement of meteorological structures offshore New Jersey to Virginia. On October 14, 2011, the Virginia SHPO replied to BOEM with concurrence that the programmatic approach appeared satisfactory (Appendix E). Additionally, on October 11, 2011, BOEM invited the ACHP to participate in the Section 106 consultations and preparation of the Agreement (see Appendix F). On October 24, 2011, the Advisory Council replied to Mr. Tommy Beaudreau, BOEM's Director, stating it

would participate in the consultations and preparation of the Agreement (see Appendix G).

BOEM held multiple consultation meetings, including:

- September 15, 2011, to meet with the Narragansett Indian Tribe in government-to-government consultation (in person);
- October 11, 2011, to initiate Section 106 with all consulting parties and to present the draft Agreement (via webinar);
- November 9, 2011, to discuss revisions to and comments received on the draft Agreement with all consulting parties (via webinar);
- November 30, 2011, to meet with the Shinnecock Indian Nation in government-to-government consultation (in person);
- December 15, 2011, to discuss revisions to and comments received on the draft Agreement with all consulting parties (via webinar);
- February 21, 2012, to implement the finalized and executed Agreement and to meet the provisions of Stipulation I (via webinar); and
- April 12, 2012, to fulfill Stipulation II of the Agreement for lease issuance offshore Virginia (in person).

Through these consultations, BOEM was informed the following signatories to the Agreement have indicated they wish to be involved in the Section 106 review for undertakings offshore Virginia: the Shinnecock Indian Nation, the Narragansett Indian Tribe, the Confederation of Sovereign Nanticoke-Lenape Tribes (including the Nanticoke Lenni-Lenape Tribal Nation of New Jersey, the Lenape Indian Tribe of Delaware, and the Nanticoke Indian Tribe of Delaware), and the Virginia Department of Historic Resources (the VA SHPO).

The April 12, 2012, Section 106 consultation meeting was held in Richmond, Virginia for the purpose of consulting on the scope of identification efforts and to consider lease stipulations relating to historic properties. This consultation meeting served as fulfillment of Stipulations II.A, -B, -E, -F, -H, -I, -J, and -K of the Agreement (see Appendix A) for lease issuance offshore Virginia. As a result of this consultation, various items were recommended by the parties, including the Narragansett Indian Tribe, the Shinnecock Indian Nation, and the VA SHPO for inclusion in Virginia leases. Lease stipulations for the identification and protection of historic properties will be based on the items presented below.

Items Recommended by the Consulting Parties

- The lessee should notify BOEM by phone within 24 hours of any post-review discovery.
- BOEM should notify the appropriate parties within 48 hours of any post-review discovery.
- Where the post-review discoveries clause refers to halting any seafloor/bottom-disturbing activities, this should include all activities within a 300-meter (m; 1000.0-foot [ft]) buffer zone of the extent of the resource.

- BOEM should clarify in all instances of reference that it considers potential paleolandscapes identified during the archaeological survey(s) to be potential historic properties.
- The person(s) conducting the archaeological survey and preparing the archaeological report should meet the *Secretary of the Interior's Professional Qualifications Standards* (48 FR 44738- 44739) and exhibit experience in conducting high-resolution marine geophysical surveys, and processing and interpretation of the data for archaeological potential.
- The lessee should prepare two versions of the archaeological report for BOEM, including one without sensitive location and religious use information, appropriate for public dissemination.
- Proposed modifications to the lessee's plans, and additional information requested by BOEM should be incorporated into a revised report.
- In addition to observing BOEM's *Guidelines for Providing Geological and Geophysical, Hazards, and Archaeological Information Pursuant to 30 CFR Part 585*, the lessee should provide site information in formats preferable to the Virginia Department of Historic Resources, as appropriate.
- A marine archaeologist should be on board the survey vessel during data collection, for quality control purposes.
- A single Native American representative acceptable to the leadership of the Narragansett Indian Tribe, the Shinnecock Indian Nation, and the Lenape Tribe of Delaware should be allowed to monitor archaeological survey and geotechnical testing.
- The lessee should hold pre-survey meetings to discuss the survey plan with BOEM and the single Native American representative.
- The lessee and its marine archaeologist should certify in its archaeological reports submitted with its plans that geotechnical sampling activities did not impact historic properties identified in the HRG surveys.

II. Description of the Steps Taken to Identify Historic Properties

Existing and Available Information

BOEM has reviewed existing and available information regarding historic properties potentially present within the OCS lease blocks associated with this undertaking. Sources of this information include consulting with the appropriate parties and the public, gathering information shared by the VA SHPO's office, and accessing information gathered by BOEM for an updated study of archaeological resource potential on the Atlantic OCS, known as the Atlantic Shipwreck Database, or ASD. The study compiles information on historic shipwrecks and models the potential for pre-European contact sites based on reconstruction of past landscapes, human settlement patterns, and site formation and preservation conditions (TRC 2012).

Existing governmental databases formed the core of the data for BOEM's ASD, which was then supplemented by commercial databases. The National Oceanic and Atmospheric Administration (NOAA) maintain the Automated Wreck and Obstructions

Information System (AWOIS), a database of wrecks and obstructions compiled from hydrographic surveys and field reports. The U.S. Navy created the Non-Submarine Contact List (NSC) for military use in distinguishing shipwrecks from submarines hiding on the ocean floor. The U.S. Navy also maintains a database entitled Partial List of Foundered U.S. Navy Craft. Ships from this source were added to the database as well. Three commercial databases were also obtained and included: The Global Maritime Wrecks Database, the International Registry of Sunken Ships, and the Northern Shipwrecks database (TRC 2012). The inherent expectation is to use multiple sources of information for the same area; however, these databases often include redundant listings for the same shipwrecks. Where listings are reasonably close geographically, and/or contain similar enough information to be understood to be one shipwreck location or obstruction, they were analyzed for the purposes of the Finding to contain only one probable locus.

The accuracy of location information is quantified in the ASD by a ranking between "1" and "4". Shipwrecks that have been positively located through recent surveys are given a location reliability rank of "1". Those shipwrecks with specific locations provided by informants, reported in literature, or marked on a map are considered a "2". A location reliability of "3" indicates that the location is given generally rather than specifically by an informant, in literature, or on a map. Locations that are unreliable or vague, such as "off the coast of North Carolina" or "at sea" are ranked at "4".

Known Historic Shipwrecks and Obstructions within the boundaries of and within 0.4 km (0.27 nm) of the Proposed Research Lease Area

BOEM's known information on historic shipwrecks and obstructions located within the boundaries of and within a buffer of 0.4 kilometers (0.27 nautical miles) around the proposed research lease area consists of a single locus in the database, the foundered vessel *SS Monroe* (TRC 2012). The *SS Monroe* was a passenger coal-fired steam freighter operating under the Old Dominion Line of New York (Figure 2). Built by Newport News Shipbuilding & Drydock Co., of Newport News, Virginia in 1902, she displaced 4,704 gross tons and measured 345 feet by 46 feet wide with one mast and one stack.

At 2:00 am on the morning of January 30, 1914, the *Monroe*, with passengers and general cargo aboard, was steaming northbound off the Virginia eastern shore through a dense fog. At the same time, the *SS Nantucket*, operated by the Merchants and Miners' Line, was heading southbound. The two vessels collided east of Wachapreague Inlet when the *Nantucket* struck the *Monroe* amidships on the starboard side (*New York Times* January 31, 1914). The *Nantucket* attempted to reverse, allowing water to rush in through the *Monroe's* hull. She quickly began listing starboard, throwing passengers into the freezing waters and settled to the bottom within twelve minutes. Of the 81 crew and 57 passengers, 19 passengers and 21 crewmembers died as a result of the collision. In the subsequent inquiry, *Nantucket's* Captain Osmyn Berry was found guilty. Despite the wreck's depth, *Monroe's* mast (and possibly stack) was still exposed above the waterline. She was demolished with explosives in 1914 to reduce the hazard to navigation.



Figure 2. SS Monroe before her collision with the SS Nantucket on January 30, 1914 (Wreck site 2013).

Paleochannels and Submerged Pre-contact Archaeological Resources

Offshore archaeological resources also include submerged pre-contact sites and features. At the head of the Norfolk Canyon on the Delmarva Peninsula, NOAA multi-beam bathymetric surveys indicate a high likelihood for relict landforms that could potentially contain inundated prehistoric archaeological resources under certain conditions (TRC 2012). The closest of these possible submerged prehistoric archaeological resources lies approximately 52.8 km (28.5 nm) northeast (seaward) of the proposed research lease area. Additionally, the survey identified two possible paleochannels located between the research lease area and shore. One is listed as being approximately 2.5 nm (4.6 km) and a second approximately 8.6 nm (15.9 km) northwest (shoreward) of the research lease area. These features remain to be investigated and are not definitive indicators of the survival of archaeological resources.

Although there are no known paleochannels or submerged prehistoric archaeological resources within the research lease area, the area is located within a region of the OCS which formerly may have been exposed above sea level and available to human occupation during the last ice age. Sea level data provides a guide to where drowned archaeological sites may be present on the OCS. The highest rate of sea level rise occurred during a period of known occupation along the Middle Atlantic, which archaeologists currently place at approximately 11,600–11,100 years before present day (B.P.). This period was followed by a much slower rate of sea level rise (approximately 0.8 cm per year) until ca. 7000 B.P., after which the rate of sea level rise slowed even further (0.2 cm per year or less). After 7,000 B.P., archaeological sites would have been subject to a higher frequency of erosion or destruction by the process of marine transgression. This suggests that earlier sites may have been exposed to lower rates of

erosion and destruction and are correspondingly more likely to survive intact, whereas later sites would have a lesser likelihood of surviving.

Although no site-specific archaeological identification surveys have been conducted within the research lease area, archaeological resources associated with shipwrecks have been previously identified therein. Based on available information, the lease blocks are located in a region considered to have the potential to contain both post-contact historic period archaeological resources in the form of shipwrecks and have the potential to contain submerged pre-contact archaeological resources. Due to the location of the proposed lease blocks in proximity to historic shipping routes, and because it has been demonstrated that archaeological sites have been identified in this general region and in similar settings, there is the potential for the presence of additional, unidentified cultural resources within the OCS lease blocks associated with the proposed undertaking.

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

This finding is based on the review conducted by BOEM of existing and available information, consultation with interested and affected parties, and the conclusions drawn from this information. The mandatory avoidance measures and other required elements which will be included in the lease will ensure the proposed undertaking will not affect historic properties. These include the following:

Identification and Required Avoidance

As discussed herein, BOEM has determined geotechnical (sub-bottom) sampling may impact historic properties. If the lessee conducts HRG surveys prior to conducting geotechnical (sub-bottom) sampling, the lessee will be able to avoid impacts to historic properties. Therefore, BOEM will require the lessee to conduct HRG surveys prior to conducting geotechnical (sub-bottom) sampling and when a potential historic property is identified, the lessee will be required to avoid it. Inclusion of the following elements in the lease(s) will ensure avoidance of historic properties and is a requirement of this Finding. The following language will be included in the research lease:

The lessee may only conduct geotechnical (sub-bottom) sampling activities in areas of the leasehold in which an analysis of the results of geophysical surveys has been completed for that area. The geophysical surveys must meet BOEM's minimum standards (*see Guidelines for Providing Geological and Geophysical, Hazards, and Archaeological Information Pursuant to 30 CFR Part 585*), and the analysis must be completed by a qualified marine archaeologist who both meets the *Secretary of the Interior's Professional Qualifications Standards* (48 FR 44738- 44739) and has experience analyzing marine geophysical data. This analysis must include a determination of whether any potential archaeological resources are present in the area and the geotechnical (sub-bottom) sampling activities must avoid potential archaeological resources by a minimum of 50.0 m (164.0 ft). The avoidance distance must be calculated from the maximum discernable extent of the archaeological resource. In no case may the

lessee's actions impact a potential archaeological resource without BOEM's prior approval.

Post-Review Discoveries Clause

Under Stipulation II.G, the Agreement requires a post-review discoveries clause be included in the lease. BOEM has an existing post-review discoveries clause, found at 30 CFR 585, and presented below. This clause may be altered, as it was for the Virginia Wind Energy Area commercial leases, by inclusion of items recommended by the consulting parties, such as reducing the 72-hour notification window to 24 hours.

BOEM's Existing Post-Review Discoveries Clause

If the lessee, while conducting activities, discovers a potential archaeological resource such as the presence of a shipwreck (e.g., a sonar image or visual confirmation of an iron, steel, or wooden hull, wooden timbers, anchors, concentrations of historic objects, piles of ballast rock), prehistoric artifacts, and/or relict landforms, etc. within the project area the applicant is to:

- 1) Immediately halt seafloor/bottom-disturbing activities within the area of discovery;
- 2) Notify the appropriate BOEM Office of Renewable Energy Programs Environment Branch Chief within 72 hours of its discovery; and
- 3) Keep the location of the discovery confidential and take no action which may adversely affect the archaeological resource until BOEM has made an evaluation and instructs the applicant on how to proceed (30 CFR 585.802(a)(1)-(3), 585.902(e)).

BOEM may require the lessee to conduct additional investigations to determine if the resource is eligible for listing in the National Register of Historic Places (30 CFR 585.802(b)). BOEM will do this if:

- (1) the site has been impacted by the lessee's project activities; or
- (2) impacts to the site or to the area of potential effect cannot be avoided.

If investigations indicate that the resources are potentially eligible for listing in the National Register of Historic Places, BOEM will tell the lessee how to protect the resources or how to mitigate adverse effects to the site. If BOEM incurs costs in protecting the resource, under Section 110(g) of the National Historic Preservation Act, BOEM may charge the lessee reasonable costs for carrying out preservation responsibilities under the OCS Lands Act (30 CFR 585.802(c-d)).

Therefore, *No historic properties will be affected* for this research lease issuance undertaking, consistent with 36 CFR § 800.4(d).

REFERENCES

- Freitag, Norbert. 1998. *Shipwrecks Unforgotten: From New Jersey to the Gulf of Florida*. Finley-Greene Publications, Island Park, New York.
- Gentile, Gary. 1992. *Shipwrecks of Virginia*. Gary Gentile Publications, Philadelphia, PA.
- Gentile, Gary. 2002. *Shipwrecks of Delaware and Maryland*. Gary Gentile Publications. Philadelphia, PA.
- TRC Environmental Corporation. 2012. *Inventory and Analysis of Archaeological Site Occurrence on the Atlantic Outer Continental Shelf*. U.S. Dept. of the Interior, Bureau of Ocean Energy, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study BOEM 2012-008. 324 pp.
- U.S. Coast Guard. *Reports of Casualty, 1913-1939, Index (Microfilm, 7 rolls)*. Record Group 26, Records of the U.S. Coast Guard, National Archives and Records Administration, Washington, D.C.
- U.S. Department of the Interior, Bureau of Ocean Energy Management (BOEM). 2012a. *Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore New Jersey, Delaware, Maryland, and Virginia; Final Environmental Assessment*. Office of Renewable Energy Programs, Herndon, Virginia. January 2012.
- U.S. Department of the Interior, Bureau of Ocean Energy Management (BOEM). 2012b. *Finding of No Historic Properties Affected for the Issuance of Commercial Leases within the Virginia Wind Energy Area for Wind Energy Development on the Outer Continental Shelf Under the "Smart from the Start" Initiative*. May 2012.
- Wrecksite. 2013. Online wreck database. <http://www.wrecksite.eu/wrecksite.aspx>. Accessed August 2013.

APPENDICES

Appendix A: Programmatic Agreement

Appendix B: Application for a Research Lease from VA DMME to BOEM, February 8, 2013

Appendix C: Correspondence from BOEM to VA SHPO, March 11, 2011

Appendix D: Correspondence from BOEM to VA SHPO, September 16, 2011; a similar letter was sent to all potential consulting parties between September and November 2011

Appendix E: Correspondence from VA SHPO to BOEM, October 11, 2011

Appendix F: Correspondence from BOEM to the Advisory Council on Historic Preservation, October 11, 2011

Appendix G: Correspondence from the Advisory Council on Historic Preservation to BOEM, October 24, 2011

PROGRAMMATIC AGREEMENT

Among

The U.S. Department of the Interior, Bureau of Ocean Energy Management;
the State Historic Preservation Officers of Delaware, Maryland, New Jersey, and Virginia;
The Advisory Council on Historic Preservation;
The Narragansett Indian Tribe; and the Shinnecock Indian Nation

Regarding

the “Smart from the Start” Atlantic Wind Energy Initiative:
Leasing and Site Assessment Activities within the Wind Energy Areas
offshore Delaware, Maryland, New Jersey, and Virginia

WHEREAS, the Bureau of Ocean Energy Management (BOEM) has embarked upon the “Smart from the Start” Atlantic Wind Energy Initiative for the responsible development of wind energy resources on the Atlantic Outer Continental Shelf (OCS), pursuant to Section 8(p)(1)(c) of the Outer Continental Shelf Lands Act (OCSLA), which was enacted in the Energy Policy Act of 2005, and the implementing regulations at 30 CFR part 585; and

WHEREAS, under the “Smart from the Start” Initiative BOEM has identified areas on the OCS offshore the States of Delaware (DE), Maryland (MD), New Jersey (NJ), and Virginia (VA) (Wind Energy Areas (WEAs)) that appear most suitable for future wind energy activities; BOEM may issue leases within these areas; and BOEM may approve site assessment plans (SAPs) on these leases; and

WHEREAS, BOEM has determined that both the issuance of a renewable energy lease and the subsequent approval of a SAP on a lease constitute undertakings subject to Section 106 of the National Historic Preservation Act (NHPA; 16 U.S.C. § 470f), and its implementing regulations (36 CFR 800); and

WHEREAS, BOEM is analyzing the environmental consequences of issuing leases and approving SAPs within these WEAs in accordance with the Department of the Interior’s regulations implementing the provisions of the National Environmental Policy Act of 1969, as amended (42 U.S.C. § 4321 *et seq.*); and

WHEREAS, under the renewable energy regulations, the process for issuing renewable energy leases on the OCS and approving plans for activities on those leases is a staged decision-making process; and

WHEREAS, under the current renewable energy regulations (30 CFR part 585), the decision to issue a lease or leases is distinct and separate from a decision to approve, approve with modification, or disapprove a SAP; and

WHEREAS, the issuance of a renewable energy lease grants the lessee the exclusive right to submit plans for BOEM approval pursuant to 30 CFR part 585; and

WHEREAS, pursuant to 30 CFR part 585, the approval of a SAP grants the lessee the right to install and operate one or more meteorological facilities (e.g. meteorological towers and/or buoys) in the lease area for the site assessment term of the lease; and

Programmatic Agreement concerning the “Smart from the Start” Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia

WHEREAS, the proposed undertakings would be located in identified WEAs on the OCS offshore DE, MD, NJ, and VA; and

WHEREAS, BOEM proposes that the Areas of Potential Effects (APE) for the undertakings, as defined in 36 CFR § 800.16(d) of the Advisory Council on Historic Preservation’s (ACHP’s) regulations implementing Section 106 of the NHPA, are defined as (1) the depth and breadth of the seabed that could potentially be impacted by proposed seafloor/bottom-disturbing activities (e.g., core samples, anchorages and installation of meteorological towers and buoys); and (2) the viewshed from which lighted meteorological structures would be visible; and (3) any areas on land used for staging the offshore work; and

WHEREAS, the undertakings subject to this Programmatic Agreement (Agreement) are limited to site assessment activities only (placement of meteorological towers and buoys for the site assessment term of the lease) and the issuing of leases: (1) giving the lessee the exclusive right to submit a SAP; and (2) on which lessees are anticipated to conduct site characterization activities to meet the information requirements in the renewable energy regulations for submitting a SAP and construction and operations plan (COP); and

WHEREAS, there will be neither shore-based facilities nor cabling installed and any construction and operations activities that might include such cables or shore-based facilities would be considered under a separate Section 106 consultation; and

WHEREAS, under the current renewable energy regulations, BOEM may offer a number of leases within a WEA simultaneously under a competitive lease issuance process, or it may issue a single lease for a given area via the noncompetitive lease issuance process; and

WHEREAS, the issuance of leases among the various WEAs may not be issued simultaneously, and could occur over a number of years; and

WHEREAS, under the current regulations, a SAP for a particular lease must be submitted within six (6) months of competitive lease issuance and within sixty (60) calendar days of a determination of no competitive interest; and

WHEREAS, the ACHP’s implementing regulations for Section 106 (36 CFR § 800) prescribe a process that seeks to accommodate historic preservation concerns with the needs of Federal undertakings through consultation among parties with an interest in the effects of the undertakings, commencing at the early stages of the process; and

WHEREAS, BOEM has identified and consulted with the State Historic Preservation Offices (SHPOs) for DE, MD, NJ, and VA, (collectively, “the SHPOs”); and

WHEREAS, the Section 106 consultations described in this Agreement will be used to, *inter alia*, establish a process to determine and document the APEs for each undertaking; further identify historic properties located within each undertaking’s APE that are listed in, or eligible

Programmatic Agreement concerning the “Smart from the Start” Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia

for listing in the National Register of Historic Places (National Register); and assess the potential adverse effects and avoid, reduce, or resolve any such effects through the process set forth in this Agreement; and

WHEREAS, according to 36 CFR § 800.16(l)(1) historic property means

any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian Tribe or Native Hawaiian organization and that meet the National Register criteria; and

WHEREAS, BOEM initiated consultation in 2011 through letters of invitation, telephone calls, emails, meetings, webinars, and the circulation and discussion of this agreement in draft; and this outreach and notification included contacting over 85 individuals and entities, including Tribes, local governments, SHPOs, state-recognized Tribes, and the public; and

WHEREAS, BOEM has initiated formal government-to-government consultation with the following Federally-recognized Indian Tribes (Tribes): the Narragansett Indian Tribe and the Shinnecock Indian Nation; and

WHEREAS, these Tribes have chosen to consult with BOEM and participate in the development of this Agreement, in which the term Tribe refers to them, consistent with the meaning of 36 CFR § 800.16(m); and

WHEREAS, BOEM shall continue to consult with these Tribes to identify properties of religious and cultural significance that may be eligible for listing in the National Register (Traditional Cultural Properties or TCPs) and that may be affected by these undertakings; and

WHEREAS, BOEM has identified and contacted 16 state-recognized Tribes, none of which have chosen to consult with BOEM and participate in the development of this Agreement; and

WHEREAS, in accordance with Section 106, Federal agencies are required to take into account the effects of their undertakings on historic properties; and

WHEREAS, BOEM, in consultation with the SHPOs and with their assistance, has begun implementing an outreach plan to involve the public and to identify other consulting parties through outreach, notifications, and request for comment; and

WHEREAS, through this outreach, TCPs eligible for inclusion in the National Register that are associated with the mid-Atlantic seafaring traditions may be identified; and

Programmatic Agreement concerning the “Smart from the Start” Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia

WHEREAS, BOEM currently has limited information regarding the presence of historic properties located on the Atlantic OCS in the areas within the WEAs that may be subject to leasing; and

WHEREAS, one of the primary reasons BOEM requires lessees to submit the results of site characterization surveys in a SAP is so that potential historic properties within the lease area that could be affected by the installation and operation of meteorological facilities can be identified and adverse effects to them avoided, minimized, or as appropriate mitigated; and

WHEREAS, BOEM has determined that the identification and evaluation of possible historic properties shall be conducted in phases, so the consultation process provided for in this Agreement shall necessarily continue throughout both stages of the decision-making process: lease issuance and SAP consideration; and

WHEREAS, the ACHP’s regulations at 36 CFR § 800.14(b)(3) provide for developing Programmatic Agreements for complex or multiple undertakings; and

WHEREAS, future commercial-scale development that may or may not occur within the WEAs is a separate undertaking and would be considered under future, separate Section 106 consultation(s); and

WHEREAS, BOEM, the SHPOs, and the ACHP are signatories to this Agreement; and

WHEREAS, BOEM has asked the Narragansett Indian Tribe and the Shinnecock Indian Nation to sign this Agreement as invited signatories; and

WHEREAS, BOEM has a policy for post-review discoveries to ensure that the identification and evaluation of historic properties, assessment of effects, and development of treatment and mitigation plans for unforeseen effects to previously-identified historic properties and/or historic properties discovered during implementation of the projects are properly coordinated (*See Guidelines for Providing Geological and Geophysical, Hazards, and Archaeological Information Pursuant to 30 CFR Part 285*, Section IV.B, “Unanticipated Discoveries (Chance Finds)”, available online at http://www.boem.gov/Renewable-Energy-Program/Regulatory-Information/Index.aspx#Notices_to_Lessees,_Operators_and_Applicants); and

WHEREAS, BOEM has guidelines for surveys that: (1) meet or exceed the Secretary of the Interior’s standards for identification surveys; (2) help ensure that all identification surveys be carried out by professionals meeting the Secretary of the Interior’s professional qualifications; and (3) recommend that analysis for viewshed impacts follow applicable, established guidelines (*Guidelines for Providing Geological and Geophysical, Hazards, and Archaeological Information Pursuant to 30 CFR Part 285*, available online at: http://www.boem.gov/Renewable-Energy-Program/Regulatory-Information/Index.aspx#Notices_to_Lessees,_Operators_and_Applicants); and

Programmatic Agreement concerning the “Smart from the Start” Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia

WHEREAS, both the post-review discoveries policy and guidelines for survey activities will be subject to future alteration as consultations progress, technology improves, and scientific studies take place;

NOW, THEREFORE, BOEM, the ACHP, the SHPOs, Tribes, and the other concurring parties (the Parties), agree that the undertakings shall be implemented in accordance with the stipulations below in order to: (1) take into account foreseen and unforeseen future effects to historic properties; and (2) give consulting parties continued opportunity to consult on the scope of identification efforts, identification of historic properties, evaluation of historic significance, assessment of adverse effects, and avoidance and mitigation of any identified, potentially affected historic properties.

STIPULATIONS

BOEM shall ensure that the following measures are carried out:

- I. Within 30 calendar days of execution of the Agreement, BOEM shall hold a consultation meeting or webinar with all Parties to ensure that the consulting parties have a common understanding of how BOEM shall administer the offshore wind leasing and plan approval process in the mid-Atlantic WEAs. BOEM shall:
 - A. Explain its legal obligations and limitations under OCSLA, the renewable energy regulations at 30 CFR part 585, and other laws and regulations pertaining to these undertakings.
 - B. Explain the leasing and plan approval process as provided in the renewable energy regulations.
 - C. Review those Section 106 compliance activities that have already occurred with respect to the undertakings, which are the subject of consultation pursuant to this Agreement.
 - D. Consult with the Parties on how APEs shall be defined for leases and SAPs within the WEAs, including those submerged areas that may have once been dry land since the last glacial maximum and could contain archaeological sites eligible for listing in the National Register.
 - E. Confirm each Party’s geographic interests to determine the portions of the WEAs on which that Party wishes to be consulted.
 - F. Solicit information on known historic properties within the APE that are located within the WEAs and/or may be outside of the WEAs but may potentially be indirectly affected by the undertaking.

Programmatic Agreement concerning the “Smart from the Start” Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia

- G. Invite the Tribes and local interest groups to consult on TCPs that are located within the WEAs and/or may be outside of the WEAs but may potentially be indirectly affected by the undertaking.
 - H. Discuss strategies BOEM shall use to identify other historic properties that may be affected.
 - I. Discuss BOEM’s existing policy for post-review discoveries and solicit suggestions for its improvement.
 - J. Propose a plan for how future consultation shall proceed throughout the term of this agreement.
- II. Prior to issuing a lease, BOEM shall:
- A. Share with the Appropriate Parties (the appropriate SHPO and other signatories to this Agreement who have confirmed interest in the APE that may be affected by the undertaking, and other consulting parties) existing, non-proprietary information regarding the area BOEM proposes to lease, including BOEM’s APE for each lease.
 - B. Solicit additional information on historic properties from the Appropriate Parties, and the public within the APE.
 - C. For competitive lease issuance, BOEM shall utilize the Proposed Sale Notices to solicit additional information on historic properties from the public in the area(s) BOEM proposes to lease.
 - D. Invite the Tribes to consult on TCPs that are located within the WEAs and/or potentially affected by the undertaking.
 - E. Discuss with the Appropriate Parties other identification methods BOEM should consider to meet its “reasonable and good faith” identification standard (as described in BOEM’s *Guidelines for Providing Geological and Geophysical, Hazards, and Archaeological Information Pursuant to 30 CFR Part 285*).
 - F. Consult with the Appropriate Parties to develop a process for addressing any post-review discoveries that may be made.
 - G. Place a stipulation in the lease addressing post-review discoveries.
 - H. Consider whether additional lease stipulations regarding the presence of, or effects to cultural or historic properties are appropriate.

Programmatic Agreement concerning the “Smart from the Start” Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia

- I. Treat all potential historic properties as eligible for inclusion on the National Register unless it is determined in consultation with the appropriate SHPO and relevant signatories that a property lacks integrity or does not meet the National Register criteria, consistent with 36 CFR 800.4(c).
 - J. In consultation with the Appropriate Parties, make determinations of effect consistent with 36 CFR 800.4(d).
 - K. Resolve adverse effects, where practicable, by avoiding historic properties and recording a finding of *No historic properties affected*, or *No adverse effect*, consistent with 36 CFR 800.4(d) and 800.5(b).
 - L. If adverse effects to historic properties cannot be avoided, BOEM shall:
 - 1. Consult with the Appropriate Parties and provide the public an opportunity to comment on the eligibility of the properties;
 - 2. Seek to resolve the adverse effects through minimizing and mitigating those effects in consultation with the Appropriate Parties and the public, as described in 36 CFR § 800.6.
- III. If a lease is issued, BOEM shall invite the lessee to participate in the consultation process pursuant to 36 CFR § 2(c)(4) insofar as its lease is concerned. This may include an offer to facilitate a Memorandum of Agreement (MOA) between the lessee, those Parties interested in the lease area, and BOEM.
- IV. Prior to approving, approving with modification, or disapproving a SAP, BOEM shall:
- A. Share with Appropriate Parties existing, non-proprietary information regarding the lease area, including the results of the lessee’s or BOEM’s surveys, available information on the size, nature, and location of the proposed temporary meteorological buoys or towers, and whether these can be seen from the shoreline.
 - B. Request from the Appropriate Parties information on historic properties within the APE that could be affected by the installation of meteorological facilities on a lease issued within the WEAs.
 - C. Request that the Tribes consult on TCPs that are located within the relevant lease area and/or potentially affected by the installation of meteorological facilities on the lease.
 - D. Consider scheduling a consultation meeting with the Appropriate Parties to (1) review the results of the identification steps, (2) discuss what additional steps to take and/or methods to be used for further identification of historic properties that may be

Programmatic Agreement concerning the “Smart from the Start” Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia

- deemed necessary by BOEM, (3) and solicit their opinions on which identified resources may meet the National Register criteria.
- E. Treat all identified potential historic properties as eligible for inclusion in the National Register unless it is determined in consultation with the Appropriate Parties that a property lacks integrity or does not meet the National Register criteria, consistent with 36 CFR 800.4(c).
 - F. Before making determinations of effect and adverse effect, consult with the Appropriate Parties consistent with 36 CFR 800.4 and 800.5.
 - G. Resolve adverse effects, where practicable, by avoiding historic properties and recording a finding of *No historic properties affected*, or *No adverse effect* consistent with 36 CFR 800.4(d) and 800.5(b).
 - H. If adverse effects to historic properties cannot be avoided, BOEM shall, in consultation with the Parties, seek to resolve the adverse effects through minimizing and mitigating those effects and provide the public an opportunity to comment on the proposed mitigation, as described in 36 CFR 800.6.
- V. CONSULTATION WITH TRIBES
- A. In addition to consultation as described in Part I of this Agreement, BOEM shall continue to consult with the Tribes throughout the implementation of this Agreement in a government-to-government manner consistent with Executive Order 13175, Presidential memoranda, and any Department of the Interior policies, on subjects related to the undertakings.
- VI. PUBLIC PARTICIPATION
- A. Because BOEM and the Parties recognize the importance of public participation in the Section 106 process, BOEM shall provide opportunities for continuing public participation in Section 106-related activities, and shall consult with the Parties on possible approaches for keeping the public involved and informed throughout the term of the Agreement.
 - B. BOEM shall keep the public informed and may produce reports on historic properties and on the Section 106 process that may be made available to the public at BOEM’s headquarters, on the BOEM website, and through other reasonable means insofar as the information shared conforms to the confidentiality clause of this Agreement (Stipulation VII).

Programmatic Agreement concerning the “Smart from the Start” Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia

VII. CONFIDENTIALITY

- A. Because BOEM and the Parties agree that it is important to withhold from disclosure sensitive information such as that which is protected by NHPA Section 304 (16 U.S.C. § 470w-3) (*e.g.*, the location, character and ownership of an historic resource, if disclosure would cause a significant invasion of privacy, risk harm to the historic resources, or impede the use of a traditional religious site by practitioners), BOEM shall:
1. Request that, by the second consultation meeting, each Party inform the other Parties if, by law or policy, it is unable to withhold sensitive data from public release.
 2. Arrange for the Parties to consult as needed on how to protect such information collected or generated under this Agreement.
 3. Follow, as appropriate, 36 CFR 800.11(c) for authorization to withhold information pursuant to NHPA Section 304, and otherwise withhold sensitive information to the extent allowable by laws including the Freedom of Information Act, 5 U.S.C. § 552, through the Department of the Interior regulations at 43 CFR Part 2.
 4. Request that the Parties agree that materials generated during consultation be treated by the Parties as internal and pre-decisional until they are formally released, although the Parties understand that they may need to be released by one of the Parties if required by law.

VIII. ADMINISTRATIVE STIPULATIONS

- A. In coordinating reviews, BOEM shall follow this process:
1. Standard Review: The Parties shall have a standard review period of thirty (30) calendar days for commenting on all documents, resource evaluations of significance, treatment plans, and specifications which are developed under the terms of this Agreement, from the date they are sent by BOEM via electronic media (email or secure website).
 2. Expedited Request for Review: The Parties recognize the time-sensitive nature of this work and shall attempt to expedite comments or concurrence when BOEM so requests. The expedited comment period shall not be less than fifteen (15) calendar days from the date BOEM sends such a request via electronic media.

Programmatic Agreement concerning the “Smart from the Start” Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia

3. If a Party cannot meet BOEM’s expedited review period request, it shall so notify BOEM in writing within the fifteen (15) calendar day period. If a Party fails to provide comments or respond within the time frame requested by BOEM (either standard or expedited), then BOEM may proceed as though it has received concurrence from that Party. BOEM shall consider all comments received within the review period.
 4. All Parties will send correspondence and materials for review and via electronic media unless a Party requests, in writing, that BOEM transmit the materials by an alternate method specified by that Party. BOEM will attempt to accommodate these requests. However, the time and expense involved in transmitting review materials by an alternate method may preclude BOEM from accommodating these requests, in which case BOEM will send the review materials to that Party via electronic media. In any case, should BOEM transmit the review materials by the alternate method identified by the Party, the review period will begin on the date they are or would have otherwise been sent via electronic media.
 5. Each Party shall designate a point of contact for carrying out this Agreement and provide this contact’s information to the other Parties, updating it as necessary while this Agreement is in force. Updating a point of contact alone shall not necessitate an amendment to this Agreement.
- B. Dispute Resolution. Should any Signatory or Invited Signatory object in writing to BOEM regarding an action carried out in accordance with this Agreement, or lack of compliance with the terms of this Agreement, the Signatories and Invited Signatories shall consult to resolve the objection. Should the Signatories and Invited Signatories be unable to resolve the disagreement, BOEM shall forward its background information on the dispute as well as its proposed resolution of the dispute to the ACHP. Within 45 calendar days after receipt of all pertinent documentation, the ACHP shall either: (1) provide BOEM with written recommendations, which BOEM shall take into account in reaching a final decision regarding the dispute; or (2) notify BOEM that it shall comment pursuant to 36 CFR 800.7(c), and proceed to comment. BOEM shall take this ACHP comment into account, in accordance with 36 CFR 800.7(c)(4). Any ACHP recommendation or comment shall be understood to pertain only to the subject matter of the dispute; BOEM’s responsibility to carry out all actions under this Agreement that are not subjects of dispute shall remain unchanged.
- C. Amendments. Any Signatory or Invited Signatory may propose to BOEM in writing that the Agreement be amended, whereupon BOEM shall consult with the Parties to consider such amendment. This Agreement may then be amended when agreed to in writing by all Signatories and Invited Signatories, becoming effective on the date that the amendment is executed by the ACHP as the last Signatory.

Programmatic Agreement concerning the “Smart from the Start” Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia

- D. Adding Federal Agencies. In the event that another Federal agency believes it has Section 106 responsibilities related to the undertakings which are the subject of this Agreement, that agency may attempt to satisfy its Section 106 responsibilities by agreeing in writing to the terms of this Agreement and notifying and consulting with the SHPOs and the ACHP. Any modifications to this agreement that may be necessary for meeting that agency’s Section 106 obligations shall be considered in accordance with Stipulation VIII.C of this Agreement.
- E. Term of Agreement. The Agreement shall remain in full force until BOEM makes a final decision on the last SAP submitted under a lease issued under this portion of the “Smart from the Start” initiative, or for ten (10) years from the date the agreement is executed, defined as the date the last signatory signs, whichever is earlier, unless otherwise extended by amendment in accordance with Stipulation VIII.C of this Agreement.
- F. Termination.
1. If any Signatory or Invited Signatory determines that the terms of the Agreement cannot or are not being carried out, that Party shall notify the other Signatories and Invited Signatories in writing and consult with them to seek amendment of the Agreement. If within sixty (60) calendar days, an amendment cannot be made, any Signatory or Invited Signatory may terminate the Agreement upon written notice to the other Signatories and Invited Signatories.
 2. If termination is occasioned by BOEM’s final decision on the last SAP contemplated under this portion of the “Smart from the Start” Initiative, BOEM shall notify the Parties and the public, in writing.
- G. Anti-Deficiency Act. Pursuant to 31 U.S.C. § 1341(a)(1), nothing in this Agreement shall be construed as binding the United States to expend in any one fiscal year any sum in excess of appropriations made by Congress for this purpose, or to involve the United States in any contract or obligation for the further expenditure of money in excess of such appropriations.
- H. Existing Law and Rights. Nothing in this Agreement shall abrogate existing laws or the rights of any consulting party or agency party to this Agreement.
- I. Compliance with Section 106. Execution and implementation of this Agreement evidences that BOEM has satisfied its Section 106 responsibilities for all aspects of these proposed undertakings by taking into account the effects of these undertakings on historic properties and affording the ACHP a reasonable opportunity to comment with regard to the undertakings.

Programmatic Agreement concerning the "Smart from the Start" Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia

By:



Date: 12-21-11

Maureen A. Bornholdt
Program Manager, Office of Renewable Energy Programs
Bureau of Ocean Energy Management

Programmatic Agreement concerning the "Smart from the Start" Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia



Date: 1/20/2012

Timothy A. Slavin
Director
and State Historic Preservation Officer

Programmatic Agreement concerning the "Smart from the Start" Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia



Date: 1-18-12

J. Rodney Little
Maryland State Historic Preservation Officer
Maryland State Historic Preservation Office

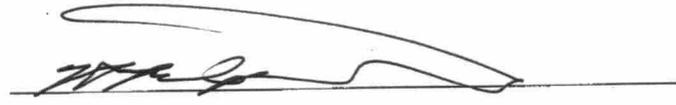
Programmatic Agreement concerning the "Smart from the Start" Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia



Date: JAN. 31, 2012

Daniel D. Saunders
Deputy State Historic Preservation Officer
New Jersey State Historic Preservation Office
New Jersey Department of Environmental Protection

Programmatic Agreement concerning the "Smart from the Start" Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia



Date: 4/18/12

Kathleen S. Kilpatrick, Director
Department of Historic Resources and Virginia State Historic Preservation Officer
Virginia State Historic Preservation Office

Programmatic Agreement concerning the "Smart from the Start" Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia



Date: 01/11/2012

[NAME] John Brown
[TITLE] Narragansett Indian Tribal Historic Preservation Officer
Narragansett Indian Tribe

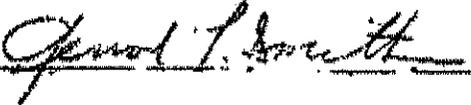
Programmatic Agreement concerning the "Smart from the Start" Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey, and Virginia

TRUSTEES OF THE SHINNECOCK INDIAN NATION



RANDY KING
TRUSTEE, CHAIRMAN

Date: 1/20/2012



GERROD SMITH
TRUSTEE,

Date: 1/20/2012



FRED BESS
TRUSTEE,

Date: 01/20/2012

Programmatic Agreement concerning the "Smart from the Start" Atlantic Wind Energy Initiative: Leasing and Site Assessment Activities within the Wind Energy Areas offshore Delaware, Maryland, New Jersey and Virginia



Date: 1/31/12

John M. Fowler
Executive Director
Advisory Council on Historic Preservation

**Unsolicited Application for a Section 238 Research Lease
by the Virginia Department of Mines, Minerals and Energy**

Research Lease Number 2 for Turbine Testing near the Virginia Call Area

This is the second unsolicited lease application submitted by the Department of Mines, Minerals and Energy (DMME), a state government agency of the Commonwealth of Virginia, to the Bureau of Ocean Energy Management (BOEM) of the United States Department of Interior, for a research lease in Federal waters off Virginia, as allowed by 30 CFR, Part 285, Section 238. The information provided below conforms to the general requirements for unsolicited lease applications as specified by 30 CFR, Part 285, Section 230, with the exception that there is no acquisition fee for a *research* lease, as indicated by 30 CFR, Part 285, Section 238, paragraph (g).

This is the newer of two applications that supersede the DMME application of 06 September 2011, which has been divided into two applications. The first is for Research Lease Number 1, for two metocean platforms in the Virginia Call Area. The second (this application) is for Research Lease Number 2, primarily for turbine testing, but also for metocean monitoring equipment. As described herein, the Commonwealth of Virginia has an interest in expediting the research lease process for this application in order to ensure that the Virginia Offshore Wind Technology Advancement Project (VOWTAP) is successful in competing for future Department of Energy (DOE) funding awards under the Advanced Technology Demonstration Program (ATDP).

The objective of the Virginia research leases is to advance both the national offshore wind development program and to accelerate commercial leasing and development of the Virginia Wind Energy Area (WEA) and the associated offshore energy industry supply chain. The path to achieve the objective is to conduct research activities that will reduce private development and project costs and lower risk.

The Virginia government's efforts and application of public resources are intended to facilitate private development of offshore wind energy. The goals and objectives of state-directed data acquisition efforts, such as the regional ocean geological survey and research leases, are shaped by the private sector stakeholders who ultimately will make much larger private investments in the offshore wind industry. Activities to take place in the research lease areas could substantially reduce uncertainties associated with installing and operating an offshore wind project, enabling our offshore wind resources, and the jobs associated with the offshore wind industry, to develop more quickly.

(a) Area Requested for Lease

The DMME is requesting a Section 238 research lease for six sub-blocks listed in Table 1. These six sub-blocks would be used for siting up to two six-megawatt (MW) turbines, as well as metocean monitoring equipment. As shown in Figure 1, this research lease falls within the geographic scope of the BOEM Mid-Atlantic Final Environmental Assessment Alternative A, for which BOEM had a Finding of No Significant Impact for lease issuance and site characterization activities.

Table 1. List of Sub-Blocks Constituting Virginia's Proposed Research Lease Number 2

Protraction Diagram Name	Protraction Diagram Number	Research Purpose	Block Number	Sub-Block Letter
Currituck Sound	NJ18-11	Turbine Testing	6061	H,L,P
Currituck Sound	NJ18-11	Turbine Testing	6111	D,H,L

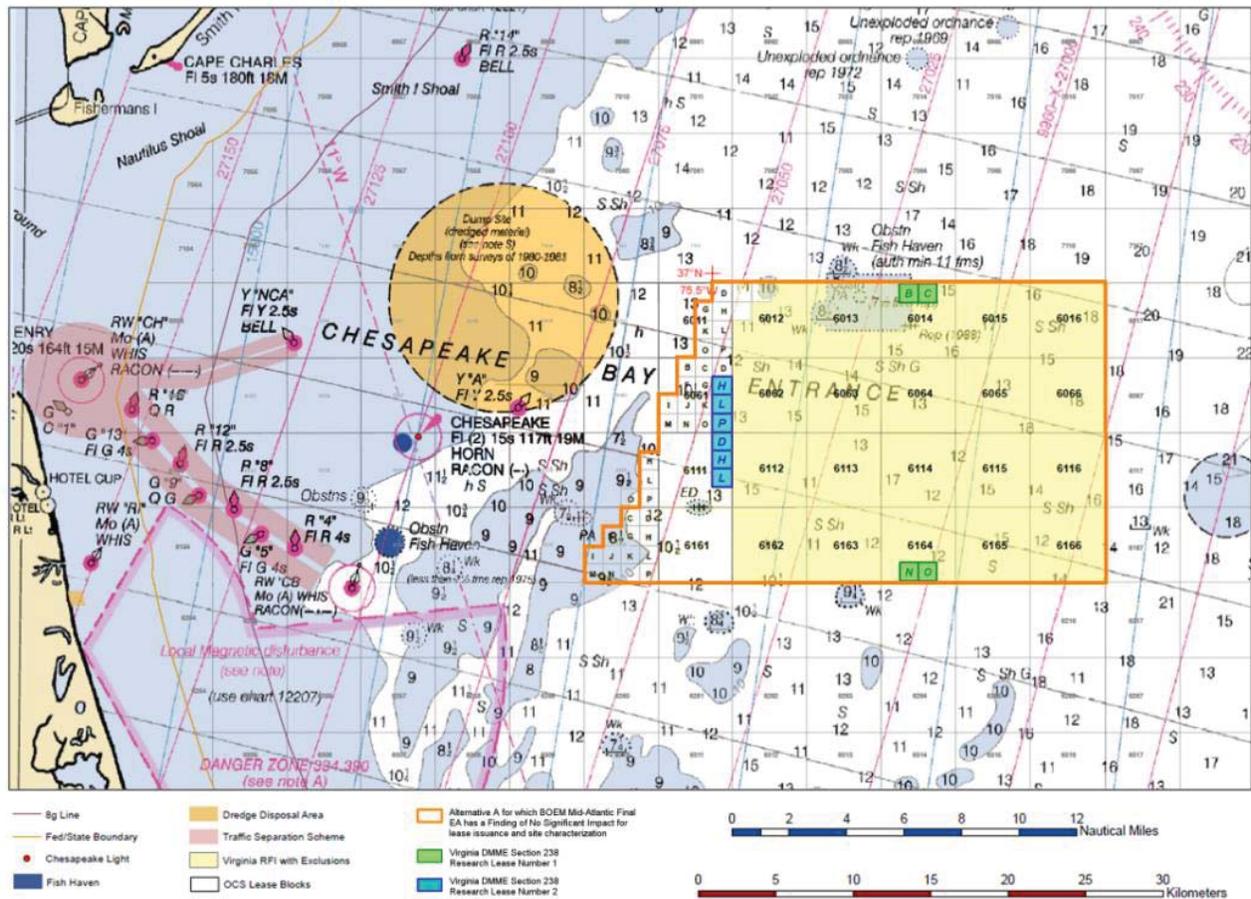


Figure 1: Research Lease #2 request (blue sub-blocks). Orange outline represents geographic scope of BOEM Environmental Assessment Alternative A. Green sub-blocks represent Research Lease #1.

The Research Lease Number 2 site was identified by consensus after a series of meetings and conference calls among members of the BOEM Virginia Intergovernmental Task Force and maritime industry stakeholders that took place between November 2010 and January 2013, concurrent with the leasing process for the commercial Virginia Wind Energy Area, for which BOEM issued a Call for Information and Nominations on 21 February 2012 and a Proposed Sale Notice on 3 December 2012. In January 2013, the Commonwealth arranged a series of meetings to reach consensus on the research lease site. Minutes from those meetings are included as Appendix C.

(b) General Description of Objectives and Facilities

In December 2012, the VOWTAP was among seven projects selected by the DOE for a \$4 million award for initial engineering, design, and permitting under Budget Period I of the ATDP. Budget Period I is a one-year competitive effort that will start for all seven projects on February 15, 2013. At the end of that period, in mid-February 2014, the DOE will down-select up to three projects from the initial seven for follow-on phases that focus on detailed design, construction, installation, and data collection. The final three projects selected could receive up to \$47 million in federal funding over four years, with a goal to have the projects in operation by the end of 2017.

This Section 238 research lease application proposes six sub-blocks to be leased for the siting of the two VOWTAP turbines, an artist rendering of which is shown in Figure 2. In order to be responsive to the ATDP Funding Opportunity Announcement (FOA), the VOWTAP turbines had to be multi-megawatt, grid connected, and incorporate advanced technologies that can achieve significant cost reduction in the commercial projects that will be developed in the first round of commercial leases in the Mid-Atlantic and other U.S. offshore wind development regions.

Additional requirements and schedule expectations of the ATDP FOA are included as Appendix D, which clearly shows that for the Topic Area 2 under which VOWTAP applied, DOE is focused on “bringing technological innovation to market” in order to achieve the cost reductions necessary to enable commercial development to be cost-competitive with the local hurdle price of electricity. Although involving commercial-scale turbines, Topic Area 2 projects are not and cannot be commercially viable themselves, but are necessary to demonstrate technology advancements that will enable such viability for commercial projects in the future.

Specific to Virginia’s application, the National Renewable Energy Laboratory estimates the cost of the VOWTAP is nearly twice the cost on a kilowatt-hour basis of a commercial scale project built in Europe today. The budget for the two VOWTAP test turbines captures significant costs associated with one-time mobilization and project management, which a commercial project would amortize over a much larger number of turbines. Consistent with DOE’s national ATDP goals, the purpose of Virginia’s project is to identify ways that advanced technology can be implemented to lower the cost of offshore wind energy in future commercial development of the Virginia Wind Energy Area.



Figure 2: Artist's rendition of VOWTAP turbines. Relative location depicted is conceptual; actual distance between turbines is likely to be between 6 and 12 rotor diameters, with tower centers between 600 and 1,200 meters apart. By comparison, an OCS sub-block is 1,200 m on a side.

The Virginia DMME as the research lease applicant is a key part of the VOWTAP team, which is led by Virginia Electric and Power Company, a wholly-owned subsidiary of Dominion Resources, Inc. (dba Dominion). Several partners are collaborating on the project, including Alstom; the National Renewable Energy Laboratory; Virginia Tech, representing the Virginia Coastal Energy Research Consortium; KBR; and Newport News Shipbuilding.

The team selected exemplifies the essential roles necessary to deliver to DOE a world-class offshore wind demonstration facility. The team mimics successful offshore wind project consortia in Europe through the inclusion of a utility, a turbine original equipment manufacturer (OEM), and engineering, procurement, and construction (EPC) firm. Alstom, as the turbine OEM, brings unparalleled experience in advanced offshore wind turbine technology research, development, and deployment. KBR, an EPC company, will serve as the owner's engineer for VOWTAP. KBR will apply its considerable knowledge of offshore wind EPC services to ensure the 50% and 100% FEED studies are comprehensive. NREL brings world-class offshore wind research, testing, and economic analysis capabilities to the team. VCERC, through Virginia Tech as the lead university, will leverage its knowledge base to provide site characterization support and targeted research. As a major division of one of the largest global shipbuilding companies, NNS provides both a breadth of marine experience and specific local knowledge of local port facilities.

The objective of the VOWTAP is to design, develop, and demonstrate a grid-connected 12 megawatt (MW) offshore wind test facility off the coast of Virginia. The team proposed deploying two Alstom HALIADE™ 6MW turbines (Figure 3), combined with other significant innovations, such as integrated substructures, installation techniques, and advanced wind farm controls, to make this a world-class research and demonstration facility. Alstom's 6MW, direct-drive offshore wind turbine combines proven technology and innovation. The new LM 73.5-m GloBlade is one of the largest wind turbine blades in the world. Net capacity factors at the VOWTAP project site are estimated to exceed 40%. The hub height of the Alstom turbine is expected to be approximately 100-m (site dependent), with a 150-m rotor diameter.



Figure 3. First HALIADE™ 150 Prototype Fully Assembled on 18 March 2012 – Le Carnet, France

The electricity will be brought to shore via a 34.5 kV or 69 kV subsea export cable that will be trenched under the seabed. No offshore substation is required. The project team is considering a number of onshore interconnection options, including several military installations. Subject to necessary approvals, the 34.5 kV or 69 kV underground cable would be directionally drilled from shore and tied into the existing circuit to minimize environmental impacts.

One of the research objectives that will be explored includes testing the wake effects from turbine-to-turbine interactions. In order to test wake effects, at least two turbines must be included in this project. While a pair of 6 MW turbines is comparatively large in scale and cost to activities typically associated with research, they are minuscule when compared to a commercial project. For the Virginia WEA, these two turbines would represent less than one percent of the commercial development in terms of total generation capacity. The distance between the turbines will be informed by the research objective to test wake effects and will likely be between 600-m to 1,200-m apart; the two turbines will be sited on no more than two BOEM aliquots. Detailed site surveys must be performed to determine the specific locations for

turbine placement. A floating remote sensing buoy or a bottom fixed meteorological platform will be deployed at the demonstration site to measure wind speed, along with a benthic node to measure waves and currents, and environmental monitoring instrumentation will be embarked on this platform as well.

VOWTAP's instrumentation and data collection plan will provide the necessary data—including metocean, turbine, structure and integrated wind plant system engineering, system performance, environmental monitoring, and operations and cost data—to validate design and operations in a field environment. The data obtained from the test will be directly applicable to commercial development, as the test project will utilize the next generation in turbine technology, will be grid connected, and will be sited in a similar depth and metocean environment as a large scale project in the commercial wind energy area. Testing the full-size 6 MW turbine in the Mid-Atlantic will also provide valuable data on installation, operations and maintenance, and hurricane survivability. The project team will disseminate data collected to DOE and BOEM for the public's benefit in order to inform and accelerate future commercial offshore wind efforts.

The project team performed an analysis to evaluate the potential impact of siting these two turbines on annual energy production (AEP) from a commercial project in the adjacent wind energy area. The analysis found that the demonstration project would decrease AEP by less than 0.1%.

(c) General Schedule of Proposed Activities

We anticipate that the schedule of activities to plan, design, construct, and operate test turbines on Research Lease Number 2 will be similar to the schedule of activities in the DOE Funding Opportunity Announcement (FOA) for ATDPs as outlined in detail below. The Commonwealth would like BOEM to move forward with the research lease process, specifically the Request for Competitive Interest, as expeditiously as possible to ensure the VOWTAP project can meet the DOE's timeline. During Phase I, the VOWTAP team is planning to begin site survey work, including geophysical surveys, and would like to have certainty regarding the lease prior to investing significant dollars in the site. By the end of Phase I, the project team will need to have selected a final site in order to be ready to begin detailed micro-siting and final design work if it is selected by DOE to move into Phase II.

Phase I (est. February 2013 – May 2014): Phase I activities will be directed towards the following outcomes:

- A 50% front-end engineering design (FEED) up to and including preliminary vendor quotes
- Identification of preliminary installation methods and identification of operating and maintenance systems suited to the site
- Initiation of all permitting or approval studies and illustration of a clear and realistic path to regulatory compliance and project completion including support for NEPA review
- Initiation of all necessary grid interconnection requirements, as well as any needed power off-take agreements. These include any applicable FERC interconnection requirements as well as any utility-specific requirements
- Succeeding in the DOE down-select at the end of Phase I

Phase II (est. June 2014 – June 2015): Up to three projects will be selected for Phase II, which also has a performance period of approximately one year. Phase II activities will be directed towards the following outcomes:

- A 100% front-end engineering design (FEED) up to and including full vendor quotes from all suppliers and independent verification of all capital, O&M and regulatory costs and proposed schedule from a DOE-approved and applicant-financed third party
- Selection of detailed installation methods and selection of operating and maintenance systems suited to the site

- Completion of Federal agency NEPA process(es) and approval of a Construction and Operations Plan (COP) or equivalent in State Waters
- Completion of all necessary grid interconnection requirements, as well as any needed power off-take agreements. These include any applicable FERC interconnection requirements as well as any utility-specific requirements
- A successful project review at the end of Phase II

Phases III through V (est. July 2015 – December 2017): Includes fabrication, installation and commissioning stages of the project and validation of operating performance, reliability and O&M costs. At the end of Phase V, the project will be generating power and delivering it to an electric power grid, the operational life of the facility is 25 years. The Phase III – V performance period will not exceed three years, and the project will be fully operational by year-end 2017.

(e) Renewable Energy Resource and Environmental Conditions in Area of Interest

As mapped by the most recent numerical modeling of this area by the National Renewable Energy Laboratory, the mean wind speed in the six sub-blocks of this proposed Research Lease Number 2 ranges from 8.0 to 8.5 m/s at an elevation of 90 m. A metocean extreme event analysis is now underway, but pending those results, the event that has produced the highest measured wind speed at the Chesapeake Light Tower during the 28-year period since measurements began there in 1984 is Hurricane Gloria, which passed offshore Virginia Beach on 26 September 1985, having a peak 10-minute average wind speed of 37.1 m/s (83 mph or 72 knots) at an elevation of 43.3 m (142 ft) above sea level, and a peak significant wave height of 6.2 m (20 ft). In 2003, Hurricane Isabel had a slightly lesser peak wind speed of 33.0 m/s (74 mph or 64 knots), but a slightly higher significant wave height of 6.34 m (21 ft).

Benthic habitat types, fish communities and other marine living resources have been mapped by the Nature Conservancy (TNC), as has commercial fishing effort based National Marine Fisheries Service (NMFS) vessel trip report data. Our proposed Section 238 lease does not coincide with any priority benthic habitat areas identified by TNC. Further, the NMFS data do not indicate that there would be major fisheries conflicts in this area. More study and stakeholder engagement, which are additional site characterization activities envisioned under this lease application, are needed to characterize the ecological resources in the local area encompassed within the proposed research lease.

(f) Conformance with State and Local Energy Planning Initiatives

A letter from the Governor of the Commonwealth of Virginia, Robert F. McDonnell, supporting the original 06 September 2011 unsolicited application for a DMME Research Lease is resubmitted with this application as Appendix A. The second paragraph of this letter is printed below, with italicized, bracketed comments indicating references to activities now delineated in separate revised DMME research lease applications:

Activities to take place in the research lease areas, such as installation of data towers, along the edges of Virginia’s commercial lease area [*referring to Lease Number 1*], could substantially reduce uncertainties in energy production estimates through earlier and more accurate wind measurements, and environmental data gathering, enabling our offshore wind resources, and the jobs associated with the offshore wind industry, to develop more quickly. Wind turbine test pads exposed to oceanic winds and waves installed (*sic*) would be used to demonstrate advanced offshore wind technologies [*referring to Lease Number 2*] that can lower the costs and reduce the risks associated with wind generation development.

This application also conforms to local energy assurance initiatives by the City of Virginia Beach, where having a source of power to the east, unconstrained by west-to-east bottlenecks in the transmission grid provides a more secure energy supply. This same energy reliability benefit also applies to regional Navy facilities, including four within the City limits of Virginia Beach. Moreover, Navy shore installations have been charged with an order from the Secretary of the Navy to obtain 50% of their electric power from new renewable energy sources by 2020.

Finally, the 2010 legislative session of the Virginia General Assembly passed a joint resolution that supports a goal of the development of 3,000 megawatts of offshore wind power by 2025.¹

(g) Documentation of Lessee Qualifications

In response to states' comments on the draft rule, which qualified only the U.S. Department of Energy (DOE) to establish and manage renewable energy research areas on the Outer Continental Shelf, the then-named Minerals Management Service broadened this provision to apply to States and other Federal agencies in addition to DOE. Therefore, this application is being submitted by the Virginia Department of Mines, Minerals and Energy, as a state government agency of the Commonwealth of Virginia.

This section demonstrates that the Virginia DMME is legally eligible, and has the technical and financial capabilities to conduct the activities to be authorized by a Section 238 renewable energy research lease on the Outer Continental Shelf (OCS) according to the provisions of 30 CFR 285.106 and 285.107.

Legal Eligibility

The DMME is one of 13 executive agencies under the Office of the Virginia Secretary of Commerce and Trade, a Cabinet-level office that oversees the economic, community and workforce development of the Commonwealth. The DMME serves a large and varied group of people, organizations and agencies throughout the Commonwealth. Through its six divisions, the agency regulates the mineral industry, provides mineral research and offers advice on wise use of energy and mineral resources. Its programs directly serve the citizens who live near mining operations, mining labor groups, other regulatory agencies, the educational community, the energy and mineral industries, and environmental, consumer and industry special-interest groups. The Department's mission is to enhance the development and conservation of energy and mineral resources in a safe and environmentally sound manner in order to support a more productive economy in Virginia.

The Commonwealth already has successfully demonstrated its legal eligibility to hold a lease as defined in 30 CFR 285.112 and further explained in 30 CFR 285.106 and 107. Submitted as Appendix B of this application is a letter dated 14 Feb 2011, which states that BOEM recognizes DMME as legally qualified to acquire and hold a renewable energy lease or grant on the OCS, and indicates that the DMME legal qualification documents are contained in a file identified as AEAU Company Number 15014.

Technical Capability

The DMME will be directly involved in management of activities to be undertaken on the proposed research lease. Cathie France, the DMME Deputy Director for Energy Policy will be the lead person responsible for managing VOWTAP activities on the research lease site. In addition, as the Designated Operator of the VOWTAP, Dominion will bring its technical expertise in developing, owning, and operating large electric generation projects to ensure the project's success.

¹ <http://lis.virginia.gov/cgi-bin/legp604.exe?111+ful+HJ605ER>

Cathie France

DMME Deputy Director for Energy Policy

Ms. France managed the permitting process for the construction of a 24-inch steel natural gas pipeline that was built underneath the Hampton Roads Harbor. The project required permits from the Army Corps of Engineers, the Virginia Marine Resources Commission, easements through Baylor Grounds controlled by the Virginia General Assembly, and local land use permits from the onshore localities on either side of the waterways. As part of the permitting process, Ms. France managed stakeholder outreach and the accommodation of many of other interests in the harbor, including discussions with the Virginia Maritime Association, the Virginia Port Authority and the Virginia Pilots' Association.

Ms. France also was DMME's technical manager of two DMME-funded contracts for test planning and site pre-development activities on Virginia's advanced technology demonstration project sites in state waters. This experience well qualifies DMME for managing similar activities on our proposed research lease in Federal waters.

The first DMME-funded project, led by the Virginia Tech Advanced Research Institute (VT-ARI) included two tasks directly relevant to the design and installation of metocean measurement and environmental monitoring platforms. The first of these has identified three new designs for rapidly relocatable meteorological mast substructures and foundations. The second relevant task has produced a series of Meteorological Tower Placement Reports for VOWDA, the first in December 2010² and an update in October 2011.³ These reports describe the types of metocean data needed to inform and accelerate commercial offshore wind project development in the Virginia Wind Energy Area, catalogue the various metocean data sources that are now available on Virginia's outer continental shelf, and provide an overview of the state-of-the-art in offshore wind resource assessment, including LIDAR measurement systems.

The second DMME-funded project, led by James Madison University (JMU), was scoped to characterize foundation conditions at the wind turbine test pad sites; to characterize the wind resource and metocean design environment at these sites, to engage regulatory stakeholders and perform due diligence on environmental and community acceptability, and to prepare the documentation that would be needed to proceed with permitting of the proposed test pad sites. The JMU project included three Virginia-based companies as subcontractors, all with considerable marine project experience: Fugro Atlantic, WeatherFlow, and Timmons Group.

George Hagerman

Senior Research Associate, Virginia Tech Advanced Research Institute
Director of Research, Virginia Coastal Energy Research Consortium (VCERC)
BOEM Virginia Task Force member

George Hagerman has over 30 years experience researching renewable ocean energy systems, including offshore wind power, wave power, tidal current energy, and ocean thermal energy conversion. Hagerman currently is principal investigator for the DMME contract with the Virginia Tech Advanced Research Institute, described above. The DMME has a long history of collaborating and financially supporting wind energy research by Mr. Hagerman and others at Virginia universities. As VCERC Director of Research, he coordinated the work at five universities to support a feasibility-level reference baseline design and cost estimate for a hypothetical offshore wind project off Virginia. He also was principal author of *Virginia Offshore Wind Studies, July 2007 to March 2010, Final Report*.

² ww.dmme.virginia.gov/DE/VOWDA/MeteorologicalTowerPlacementReport.pdf

³ www.dmme.virginia.gov/DE/VOWDA/MetTowerUpdateReport.pdf

Mr. Hagerman has been invited to brief Federal and state regulatory agencies, and to testify before legislative committees of the U.S. Congress and the Virginia General Assembly. In 2009, the Minerals Management Service recognized his service with an Offshore Leadership Award.

Guy Chapman

Director – Alternative Energy Generation Technologies
Dominion Virginia Power

Mr. Chapman has 14 years of experience in the electric utility industry. Mr. Chapman is currently responsible for leading Dominion's renewable energy generation technology research and development activities, including developing the company's offshore wind development strategy. As part of this strategy, he is involved in all aspects of offshore wind technology evaluation, analysis, and due diligence. Mr. Chapman is principal investigator on two Department of Energy awards focused on offshore wind development, including the VOWTAP. Prior to joining the Alternative Energy Solutions group at Dominion, Mr. Chapman dispatched, optimized and maximized the economics of power generation facilities. He has designed and programmed comprehensive cost and revenue models using real option valuations techniques for power generation technologies.

As the designated operator of the project, Dominion has a proven successful track record in (1) operating major electric generation and transmission facilities, (2) developing, permitting and constructing large scale generation projects on time and on budget, and (3) expanding its renewable generation portfolio. Virginia Electric and Power Company includes approximately 19,500 MW of electric generation, 6,300 miles of electric transmission lines and 56,900 miles of electric distribution lines and serves 2.4 million customer accounts, while also selling wholesale power to municipal utilities and electric cooperatives.

Renewable energy is an important part of Dominion's overall electricity portfolio that includes over 1,600 MW under development, in construction or in operation. Of this total, over 800 MW are wind energy facilities. Dominion's operating wind facilities include the Mount Storm Wind Farm and the Fowler Ridge Wind Farm. Dominion is a 50% partner with Shell WindEnergy in the 264 MW Mount Storm Wind Farm located in Grant County, West Virginia. This wind farm is operational and is connected to the PJM grid. Dominion is also a 50 percent partner with BP Alternative Energy North America Inc. in the 300 MW Phase I Fowler Ridge Wind Farm in operation in Benton County, Indiana. This wind farm is operational and connected to the PJM grid. On both of these completed projects, Dominion was a major contributor to the management of the construction of the facilities, and remains heavily involved in the day-to-day operations of the facilities. Virginia Electric and Power Company will leverage Dominion's experience in the construction and operations of the two wind farms as the Company moves into wind energy offshore. In addition to the operating projects, the 300 MW Prairie Fork Wind Farm in Central Illinois is in early stages of development and is expected to be connected to the PJM grid. Dominion is also developing three wind projects in the mountains of Virginia that could total up to 248 MW. Other renewable energy projects in the Company's portfolio are as follows:

- Pittsylvania Power Station, Hurt, Virginia: This 83 MW facility is one of the largest biomass-fueled generators on the East Coast.
- Virginia City Hybrid Energy Center (VCHEC), Wise, Virginia: This 585 MW hybrid facility in southwest Virginia has the potential to burn 117 MW of biomass energy. The facility burns coal, waste coal, and biomass, utilizing the most advanced environmental controls to limit mercury, sulfur dioxide and nitrogen oxides. The \$1.8 billion project began operations in summer 2012 – on time and on budget.
- Altavista, Hopewell, and Southampton County Biomass Conversions: In March 2012, the Virginia State Corporation Commission (SCC) approved plans to convert three Virginia power stations from coal to biomass. The three power stations are nearly identical and

originally came on-line in 1992. Once converted, each facility will have a capacity of 51 MW. The power stations could begin burning biomass by the end of 2013.

- **Community Solar Program:** In November 2012, the Company received approval from the Virginia SCC to construct and operate Company-owned solar generation facilities at various commercial, industrial, and public government locations. The Company will seek volunteers throughout its service area willing to lease suitable rooftop sites for installation of solar panels in order to assess the benefits solar-distributed generation may have on the electric distribution system. The capacity of each such installation will range from 500 kilowatts to 2 megawatts, and each site typically requires roof areas of 75,000 square feet or more.

In February 2012, the Company received approval from the SCC to build the Warren County Power Station, a natural gas-fired plant. This \$1.1 billion facility will have an installed capacity of 1,329 MW. The Company anticipates commencing operation in late 2014 or early 2015. In May 2011, the Company completed construction and commenced commercial operations of the Bear Garden Power Station, a 590 MW combined cycle, natural gas-fired facility, at a total cost of approximately \$620 million.

Finally, further demonstrating its technical ability to construct, operate and own highly environmentally sensitive and capital-intensive generation, the Company has four licensed, operating nuclear reactors at Surry and North Anna in Virginia and is considering an additional nuclear unit.

Virginia Electric and Power Company's technical qualifications also include its responsibility to maintain the reliability of its 6,300 mile transmission grid, including transmission construction, such as the 500-kilovolt Meadow Brook to Loudoun transmission line in Northern Virginia in April 2011 and another 500-kilovolt line, Carson to Suffolk, in Southeastern Virginia in May 2011. These recently completed transmission lines will ease congestion on the electric grid and help supply power to several state and federal government facilities and energy-intensive data centers. In addition, the Company completed a 230 kV transmission line in 2012 that extends from Dominion's Yorktown Power Station under the York River for approximately 3.5 miles to Gaines Point, where the Company has constructed an underground-to-overhead transition station.

Financial Capability

Financing plan for lease acquisition and initial site characterization activities: As stated in 30 CFR, Part 285, Section 238, paragraph (g), there is no acquisition cost for a research lease, but the lease holder does need to finance the cost of obtaining all required Federal authorizations, including BOEM approval of a General Activities Plan (GAP) and the cost of performing site characterization activities.

BOEM will require that the lease holder provide the results of a number of surveys with its GAP, including a shallow hazards survey (30 CFR 285.626 (a) (1)), a geological survey (30 CFR 285.616(a)(2)), a geotechnical survey (30 CFR 285.626(a)(4)), an archaeological resource survey (30 CFR 285.626(a)(5)), and biological surveys (30 CFR 285.626(a)(3)). The project will also require additional federal approvals or permits from a number of federal agencies, including the National Oceanic and Atmospheric Administration, the United States Coast Guard, the United States Army Corps of Engineers, the United States Fish and Wildlife Service, and relevant state agencies. Acoustic emissions during geophysical surveys and any pile driving activities for the metocean data platforms will require Incidental Harassment Authorization (IHA) from the National Marine Fisheries Service under the Marine Mammals Protection Act as amended in 1994. Since that time, the IHA program has been increasingly used for short-term activities that might inadvertently harass marine mammals. This program allows authorizations to be issued in 120 days.

The total cost for the above-described surveys and authorizations is estimated by industry sources familiar with BOEM's geological, geophysical, and archeological survey guidance to be \$5 million. As previously stated, the VOWTAP project received a \$4 million award for initial site assessment and engineering design work under a DOE cooperative agreement. Alstom and the Virginia DMME have also committed to provide cost share to the project. Dominion is committed to cover any of the remaining costs associated with site characterization that will take place in the first phase of the project. Should VOWTAP be selected by DOE to continue into the next phase of the ATDP, Dominion would then commit to completing site-related survey and permitting work during the 100% FEED study. Virginia Electric and Power Company and its Dominion affiliates have a long history of undertaking, and obtaining, the necessary financing for large, innovative projects in a responsible manner, balancing the interests of shareholders, customers and the environment; offshore wind follows that tradition. Revenue provided by electric generation and distribution operations is based primarily on rates established by state regulatory authorities. Revenue provided by electric transmission operations is based primarily on rates approved by the FERC. A full listing of current generation projects and detailed financial statements can be found in the Annual Report on Form 10-K included as Appendix E.

DMME and VOWDA have access to several mechanisms for financing the cost of these initial activities and subsequent phases of research lease development.

Financing mechanisms for initial site characterization and subsequent phases: DMME has the authority to make and enter into all contracts and agreements necessary or incidental to the performance of its duties and the execution of its powers, including, but not limited to, contracts with the private sector, the United States, other state agencies and governmental subdivisions of the Commonwealth. The department also is authorized, consistent with Federal funding rules, to distribute energy-related Federal funds as grants or as loans to other state or non-state agencies for use in financing energy-related projects.

To support late-phase development and wind energy supply chain growth, the Commonwealth of Virginia has created financial incentives for manufacturing companies that create new jobs and renewable sources of energy generation. The Clean Energy Manufacturers Incentive Grant, for instance, can provide grants up to \$36 million to manufacturers that invest at least \$50 million and create 200 jobs. Wind energy suppliers can qualify if they invest \$10 million and create 30 jobs.

VOWDA was created specifically to accelerate offshore wind development off of Virginia's coast and granted powers to provide and facilitate financing to support that mission. The Authority may establish public-private partnerships and share costs with developers for the following activities: the installation and operation of wind resource and other metocean equipment, including light detection and ranging equipment, meteorological measurement towers, data collection platforms, the collection of avian and marine environmental data, the upgrade of port facilities and other logistical equipment sites to accommodate the manufacturing and assembly of offshore wind energy project components and vessels that will support the construction and operations of offshore wind energy projects.

The Virginia Resources Authority (VRA) has the authority to lend to local governments and to state-created authorities, such as VOWDA. Since its inception, VRA has funded more than 875 projects across the Commonwealth exceeding \$4.2 billion of investment, an average of \$4.8 million per project. Financing solutions include revolving fund loans at below-market interest rates and bonds backed by the moral obligation of the Commonwealth.

The Virginia Public Building Authority (VPBA) also provides financing for State projects, facilities and obligations that have been approved by the Governor and General Assembly. The VPBA is a political subdivision of the Commonwealth, authorized to issue bonds under the Virginia Public Building Authority Act of 1981 (the "Act"). The Authority was created by the Act for the purpose of financing, refinancing, constructing, improving, furnishing, maintaining, acquiring and operating public buildings for the use of the Commonwealth; and financing or refinancing capital projects that benefit the Commonwealth and any of its agencies, instrumentalities and political subdivisions. VPBA financed about \$16 million in infrastructure improvements to the Virginia Commercial Space Flight Authority and Mid-Atlantic Regional Spaceport at Wallops Island.

Impeccable credit: Virginia has held its AAA bond rating for 70 years, longer than any other state. A state's bond rating serves as a measure of a state's financial and administrative status. Virginia's AAA bond rating, the best rating possible, is a reflection of the confidence placed in the Commonwealth's fiscal health. Virginia has earned the highest possible rating with three organizations. The Commonwealth's credit worthiness is rated as AAA by Standard and Poor's, Aaa by Moody's Investors Service, and AAA by Fitch Ratings.

The Pew Center on the States awarded Virginia the top overall grade for government performance in 2005 (along with Utah) and again in 2008 (along with Utah and Washington) based on their assessment of how well the state managed its people, money, infrastructure, and information. Virginia has long been recognized as one of the best-managed states in the nation according to these and similar criteria.

There have been no significant, relevant and adverse legal or regulatory actions taken against DMME in the last five years.

DMME has not filed for bankruptcy or been a target in other adverse financial proceedings with the last five years.

(h) Regulation and Oversight of Activities

As required by CFR 30, Part 285, Section 238, Paragraph (d), the BOEM Director and the Governor of Virginia, or their authorized representatives, will negotiate the terms and conditions of any renewable energy lease, right-of-use (RUE), or right-of-way (ROW) grant that may be issued in response to this unsolicited application.

The framework for such negotiations, and standard terms and conditions of such leases, RUEs, or ROW grants may be set forth in a memorandum of agreement (MOA) or other agreement between BOEM and the Commonwealth of Virginia. The MOA will include the agreement of Virginia to assure that all of the Commonwealth's contractors and subcontractors will comply with these regulations, other applicable Federal laws, and all terms and conditions of such leases or grants.

CERTIFICATION

THAT I, Conrad T. Spangler, III, am authorized to bind the Commonwealth of Virginia Department of Mines, Minerals and Energy (DMME) in any matter related to the acquisition and operation of leases, right-of-way grants, or right-of-use and easement grants for activities that produce or support production, transportation, or transmission of energy from sources other than oil and gas on the OCS, to agree upon the terms of and to execute and deliver any instrument or agreement, including any application, bid, lease, plan, rights-of-way grant, rights-of-use and easement grant, bond or other financial assurance instrument, assignment, designation of operator, relinquishment, amendment, abandonment, power of attorney (including the revocation thereof), and any other paper related to such a lease, right-of- way, right-of-use, and easement.



[signature] Conrad T. Spangler, III, Director
Commonwealth of Virginia Department of Mines, Minerals and Energy

February 8, 2013

[date]

List of Appendices:

Appendix A – Governor McDonnell Sec238 lease support letter 20-Jan-2011

Appendix B – BOEMRE letter Virginia legal qualification 14-Feb-2011

Appendix C – Maritime stakeholder and federal agency meeting notes Jan-2013

C1 – Maritime Stakeholder Meeting Notes 11-Jan-2013

C2 – BOEM Research Lease Meeting Notes 16-Jan-201

C3 – Slides for meetings of 11-Jan-2013 and 16-Jan-2013

Appendix D – DOE-FOA-410 excerpts include budget & schedule 12-Mar-2012

Appendix E – Dominion Virginia Power Form 10-K report to SEC 28-Feb-2012



United States Department of the Interior

BUREAU OF OCEAN ENERGY MANAGEMENT, REGULATION AND ENFORCEMENT

Washington, DC 20240

Ms. Kathleen Kilpatrick
State Historic Preservation Officer
Virginia Department of Historical Resources
2801 Kensington Avenue
Richmond, Virginia 23221

MAR 11 2011

Dear Ms. Kilpatrick:

On November 23, 2010, Secretary of the Interior Ken Salazar announced the “Smart from the Start” renewable energy initiative to streamline responsible renewable wind energy development on the Atlantic Outer Continental Shelf (OCS) by identifying areas most conducive to wind energy development, coordinating environmental studies, and utilizing large-scale planning and an expedited leasing process. These Wind Energy Areas (WEAs), under consideration for future leasing, may be further refined or modified as a result of any comments received on public notices, results of environmental analyses and consultations. More information on the “Smart from the Start” initiative can be found in the February 9, 2011, Notice of Intent (NOI) to Prepare an environmental assessment (EA) for leasing offshore the Mid-Atlantic States (76 FR 7226).

Under the “Smart from the Start” initiative, the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) is planning to prepare a regional environmental assessment that will consider the environmental consequences of (1) issuing leases; (2) site characterization activities that lessees may undertake on those leases (e.g., geophysical, geotechnical, archaeological and biological surveys); and (3) the subsequent approval of site assessment activities on the leaseholds (e.g., installation and operation of meteorological towers and buoys) in specific WEAs identified offshore New Jersey, Delaware, Maryland, and Virginia. See the enclosed NOI (which describes the WEAs). BOEMRE has determined that issuing leases and subsequently approving site assessment activities in these WEAs constitute an undertaking subject to Section 106 of the National Historic Preservation Act (16 U.S.C. 470f), and its implementing regulations (36 CFR 800).

Although bottom-disturbing activities (e.g., core sampling and associated anchoring and placement of meteorological structures) on the OCS have the potential to affect historic properties, BOEMRE feels that the archaeological and geophysical surveys that lessees will undertake (in part, to identify these resources on the seafloor in the first instance) will likely avoid or minimize effects of the proposed undertaking (i.e., BOEMRE issuing leases and subsequently approving site assessment activities) on historic properties.

Similarly, while it is possible that some meteorological towers may be visible from shore, BOEMRE believes that the impact these structures may have on historic properties will likely be negligible, if there is any impact at all. Nevertheless, BOEMRE is initiating this formal Section 106 consultation pursuant to 36 CFR 800.2(c)(1) to ensure that a wide range of views and information is taken into consideration as early in the decision-making process as possible.

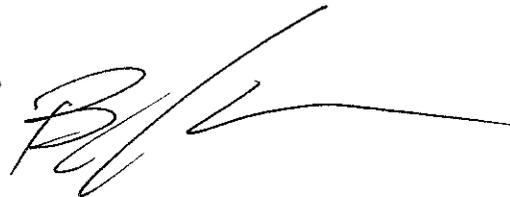
Although the proposed undertaking is situated in Federal waters, BOEMRE is requesting the views of the State Historic Preservation Officer (SHPO) and your office on further actions to identify the Area of Potential Effect (APE) and any historic properties that may be affected by the proposed project, as required by 36 CFR 800.4. BOEMRE acknowledges that a SHPO may possess knowledge or special expertise regarding historic properties within the proposed project area. In addition, BOEMRE is requesting any information you may have regarding other parties, tribes, or members of the public you believe should be included in the consultation process as per 36 CFR 800.3(f).

Please find enclosed the necessary documentation regarding the proposed project area for the Federal undertaking, per 36 CFR 800.11. BOEMRE is acting as the lead Federal agency fulfilling the collective Federal responsibilities under 36 CFR 800.2(a)(2), while the U.S. Army Corps of Engineers will act as a co-consulting agency due to their permitting authority of bottom-founded structures on the OCS (33 U.S.C. 403).

BOEMRE invites comments regarding any other concerns that the proposed undertaking may raise. Should you have any questions about this undertaking you may contact Kathleen Tyree at (703) 787-1623 or Kathleen.Tyree@BOEMRE.gov.

Thank you in advance for your timely response and cooperation. I look forward to receiving your response within 30 days of receipt of this submittal in accordance with 36 CFR 800.3(c)(4).

Sincerely,



Brian Jordan, Ph.D.
Federal Preservation Officer
Headquarters Archaeologist

Enclosures:

NOI
MAP of Proposed Project Area

cc: Elizabeth Tune, Manager, Virginia Office of Preservation Incentives
Roger Kirchen, Archaeologist, Virginia Department of Historic Resources



United States Department of the Interior

BUREAU OF OCEAN ENERGY
MANAGEMENT, REGULATION AND ENFORCEMENT

Washington, DC 20240

SEP 16 2011

Ms. Kathleen Kilpatrick
State Historic Preservation Officer
Department of Historic Resources
2801 Kensington Avenue
Richmond, Virginia 23221

Dear Ms. Kilpatrick:

On November 23, 2010, Secretary of the Interior Ken Salazar announced the “Smart from the Start” renewable energy initiative to simplify responsible renewable wind energy development on the Atlantic Outer Continental Shelf (OCS) by identifying areas most conducive to wind energy development, coordinating environmental studies, and utilizing large-scale planning and an expedited leasing process. These Wind Energy Areas (WEAs) under consideration for future leasing, may be further refined or modified as a result of any comments received on public notices, results of environmental analyses, and consultations with the tribes, the public, and other Federal and state agencies. More information on the “Smart from the Start” initiative can be found in the February 9, 2011, Notice of Intent (NOI) to Prepare an environmental assessment (EA) for leasing offshore the Mid-Atlantic States (76 FR 7226).

Under the “Smart from the Start” initiative, the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) has prepared a draft regional EA that will consider the environmental consequences of (1) issuing leases; (2) site characterization activities that lessees may undertake on those leases (e.g., geophysical, geotechnical, archaeological and biological surveys); and (3) the subsequent approval of site assessment activities on the leaseholds (e.g., installation and operation of meteorological towers and buoys) in specific WEAs identified offshore New Jersey, Delaware, Maryland, and Virginia. The full text of the draft EA, including maps depicting the project areas for each state, can be obtained at:

http://www.boemre.gov/offshore/RenewableEnergy/PDFs/MidAtlanticWEAs_DraftEA.pdf and is included in this mailing.

BOEMRE has determined that issuing leases and subsequently approving site assessment activities in these WEAs constitute an undertaking subject to Section 106 of the National Historic Preservation Act (16 U.S.C. 470f), and its implementing regulations (36 CFR 800). Department of Historic Resources has been identified as possibly having information pertinent to historic resources in the area. BOEMRE respectfully requests that the Department of Historic Resources review the EA and offer any information (not previously shared) related to known historic sites or cultural properties within the areas that may be affected by leasing, site characterization activities, and the construction of meteorological towers in the WEAs. This information will allow the agency to consider and document potential effects to historic properties early in the Section 106 process in accordance with 36 CFR 800.4 and 800.5.

Although bottom-disturbing activities (e.g., core sampling and associated anchoring and placement of meteorological structures) on the OCS have the potential to affect historic properties, BOEMRE feels that the archaeological and geophysical surveys that lessees will undertake (in part, to identify these resources on the seafloor in the first instance) will likely avoid or minimize effects of the proposed undertaking (i.e., BOEMRE issuing leases and subsequently approving site assessment activities) on historic properties. Similarly, while it is possible that some meteorological towers may be visible from shore, BOEMRE believes that the impact these structures may have on historic properties will likely be negligible, if there is any impact at all.

Please find the necessary documentation regarding the proposed project area for the Federal undertaking, per 36 CFR 800.11, enclosed. BOEMRE is acting as the lead Federal agency fulfilling the collective Federal responsibilities under 36 CFR 800.2(a)(2), while the U.S. Army Corps of Engineers will act a co-consulting agency due to their permitting authority of bottom-founded structures on the OCS (33 U.S.C. 403).

BOEMRE invites comments regarding any other concerns that the proposed undertaking may raise. BOEMRE intends to use the standard Section 106 process as described in 36 CFR 800.3 through 800.6, and requests that the Department of Historic Resources respond to this letter so that we may discuss this undertaking and any other identified areas of interest. Should you, or your representative, have any questions about this undertaking you may contact BOEMRE Archaeologist Brandi Carrier Jones at (703) 787-1623 or Brandi.CarrierJones@boemre.gov. Any correspondence may also be sent to Ms. Carrier Jones at the following address:

Department of the Interior
Bureau of Ocean Energy Management, Regulation and Enforcement
Office of Offshore Alternative Energy Programs
381 Elden Street, MS 4090
Herndon, VA 20170-4817

Thank you in advance for your timely response and cooperation. I look forward to receiving your response within 30 days of receipt of this submittal.

Sincerely,



Brian Jordan, Ph.D.
Federal Preservation Officer
Headquarters Archaeologist

Enclosures:

Mid-Atlantic Regional EA
MAP of Proposed Project Area



COMMONWEALTH of VIRGINIA

Douglas W. Domenech
Secretary of Natural Resources

Department of Historic Resources
2801 Kensington Avenue, Richmond, Virginia 23221

Kathleen S. Kilpatrick
Director

Tel: (804) 367-2323
Fax: (804) 367-2391
TDD: (804) 367-2386
www.dhr.virginia.gov

October 14, 2011

Mr. Brian Jordan, Ph.D.
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
381 Elden Street, MS 4090
Herndon, VA 20170-4817

Re: Commercial Wind Lease Issuance and Site Characterization Activities on the Outer Continental Shelf Offshore NJ, DE, MD, and VA
DHR File No. 2011-0551

Dear Dr. Jordan:

Thank you for requesting our comments on the proposed action referenced above. We appreciate BOEM's proactive and thoughtful approach to compliance with the National Historic Preservation Act (NHPA) and look forward to working with you throughout this consultative process.

While the specifics are as yet unknown, we concur that the issuance of offshore wind leases and the subsequent site characterization studies have the potential to affect historic properties. The general approach outlined in your October 11 webinar seems adequate to address BOEM's responsibilities under the NHPA. Specifically, DHR supports your programmatic approach; however, we are concerned that given the scope of such an agreement, it may not be unattainable within the accelerated timeframe allotted. All the same, DHR stands ready to assist BOEM in this effort.

Again, we appreciate BOEM's consideration of historic properties as part of the wind lease process. When we may be of further assistance to your agency, please do not hesitate to contact me at roger.kirchen@dhr.virginia.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Roger W. Kirchen".

Roger W. Kirchen, Archaeologist
Office of Review and Compliance

Administrative Services
10 Courthouse Ave.
Petersburg, VA 23803
Tel: (804) 862-6416
Fax: (804) 862-6196

Capital Region Office
2801 Kensington Ave.
Richmond, VA 23221
Tel: (804) 367-2323
Fax: (804) 367-2391

Tidewater Region Office
14415 Old Courthouse Way
2nd Floor
Newport News, VA 23608
Tel: (757) 886-2807
Fax: (757) 886-2808

Western Region Office
962 Kime Lane
Salem, VA 24153
Tel: (540) 387-5428
Fax: (540) 387-5446

Northern Region Office
5357 Main Street
P.O. Box 519
Stephens City, VA 22655
Tel: (540) 868-7029
Fax: (540) 868-7033



United States Department of the Interior

BUREAU OF OCEAN ENERGY MANAGEMENT

WASHINGTON, DC 20240-0001

OCT 20 2011

Dr. Thomas McCulloch, Ph.D., R.P.A.
Senior Archaeologist
Office of Federal Agency Programs
Advisory Council on Historic Preservation
Washington, D.C. 20004

Dear Dr. McCulloch:

The Smart from the Start Initiative, announced on November 23, 2010 by Secretary of the Interior Ken Salazar, wind energy initiative was designed in part to identify areas that appear to be most suitable for wind energy development. These Wind Energy Areas (WEAs) were identified through Bureau of Ocean Energy Management (BOEM) Intergovernmental Task Forces comprised of state, local, and tribal officials; comments received on public notices; and consultations.¹

BOEM is considering (1) issuing leases, and (2) subsequently approving site assessment plans (SAPs) for those leaseholds within four WEAs offshore Delaware, Maryland, New Jersey, and Virginia.

The leases issued by BOEM would give the lessees the exclusive right to submit a SAP for BOEM's approval. The SAP includes details such as where site assessment structures (e.g., meteorological towers and buoys) would be placed; and the results of site characterization survey data, which includes cultural resources survey and archaeological inventory.²

BOEM has determined that issuing leases and approving site assessment activities constitute an undertaking subject to Section 106 of the National Historic Preservation Act (16 U.S.C. 470f), and its implementing regulations (36 CFR 800).

Furthermore, BOEM has determined that bottom-disturbing activities (e.g., core sampling and associated anchoring and placement of meteorological structures) on the Outer Continental Shelf (OCS) have the potential to affect historic properties. If it is determined through consultation that historic properties might be adversely affected by the undertaking, BOEM intends to resolve adverse effects primarily through avoidance.

¹ Additional information, including detailed maps of the WEAs, is available at:

http://www.boemre.gov/offshore/RenewableEnergy/PDFs/MidAtlanticWEAs_DraftEA.pdf

² Leases will not allow the lessee to construct any commercial-scale wind generating facilities. A separate, site- and project-specific Section 106 consultation would take place in the future, should a lessee ultimately propose the construction of a commercial wind energy facility in a COP. 30 CFR 285.620-.626.

Conversely, while it is possible that some meteorological towers may be visible from shore, BOEM believes that these structures would be indistinguishable from lighted vessel traffic and because of their temporary nature will have negligible impacts on historic properties.

BOEM currently has limited information regarding the presence or absence of historic properties within the WEAs. One of the primary reasons BOEM requires lessees to submit the results of site characterization surveys in a SAP is so that potential cultural resources on the leasehold can be identified. Because the complete identification of historic properties would not take place until after leases are issued, BOEM is drafting a Programmatic Agreement (PA) to establish the process through which consultation will continue regarding all information generated as a result of ongoing site characterization activities. This will inform BOEM's future decisions regarding the approval, approval with modification, or disapproval of lessees' SAPs (30 CFR 285.605-.613). Using a phased approach set out in a PA will allow the consulting parties to participate in determining how potential adverse affects to newly identified historic properties will be addressed when BOEM considers lessees' SAPs – either by avoidance or mitigation.

BOEM currently is drafting a proposed PA to discuss with the consulting parties, and invites the Advisory Council on Historic Preservation's participation in this Section 106 consultation. Should you, or your representative, have any additional questions you may contact me at (703) 787-1549 or Brandi.CarrierJones@boem.gov or BOEM's Federal Preservation Officer, Dr. Brian Jordan, at (703) 787-1748 or Brian.Jordan@boem.gov. Correspondence may also be sent to my attention at the following address:

Department of the Interior
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
381 Elden Street, HM 1328
Herndon, Virginia 20170-4817

With Warm Regards,

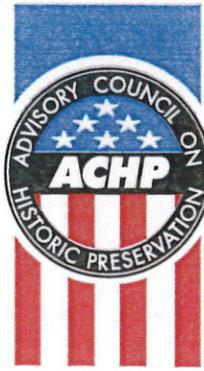
A handwritten signature in black ink, appearing to read 'Brandi Carrier Jones', with a long horizontal line extending to the right.

Brandi Carrier Jones
Archaeologist

Milford Wayne Donaldson, FAIA
Chairman

Clement A. Price Ph.D.
Vice Chairman

John M. Fowler
Executive Director



Preserving America's Heritage

October 24, 2011

Mr. Tommy Beaudreau
Director
Bureau of Ocean Energy Management
1849 C Street, NW
Washington, D.C. 20240

Ref: Smart from the Start identification of mid-Atlantic Wind Energy Areas offshore
Delaware, Maryland, New Jersey, and Virginia

Dear Mr. Beaudreau:

The Advisory Council on Historic Preservation (ACHP) has been invited by the Bureau of Ocean Energy Management (BOEM) to participate in the referenced undertaking to help ensure that historic properties are fully considered in wind energy development off the mid-Atlantic coast. Pursuant to the Criteria for Council Involvement in Reviewing Individual Section 106 Cases (Appendix A to our regulations, 36 CFR Part 800) we believe the criteria are met for our participation in this undertaking. Issuing leases and approving site assessment plans for leaseholds will be a very complex activity that may present substantial impacts to important historic properties or involve questions of policy or interpretation. Accordingly, the ACHP will participate in consultation with BOEM and other stakeholders to seek ways to avoid, reduce, or mitigate adverse effects to historic properties.

By copy of this letter we are also notifying Dr. Brian Jordan, BOEM's Federal Preservation Officer, of our decision to participate in consultation.

Our participation will be handled by Dr. Tom McCulloch, who can be reached at 202-606-8554 or at tmcculloch@achp.gov. We look forward to working with Reclamation on this important project.

Sincerely,

John M. Fowler
Executive Director