

Appendix V-2 OHPO and ACHP Correspondence



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

June 29, 2017

Kendra Kennedy
Project Reviews Manager
State Historic Preservation Office
Ohio History Connection
800 E. 17th Ave
Columbus, Ohio 43211

SUBJECT: (Ohio State Historic Preservation Office project number 2010-CUY-10925) DOE Request for Initiation of Section 106 Consultation for LEEDCo Project Icebreaker

Pursuant to Section 106 of the *National Historic Preservation Act* of 1966 (NHPA) as amended, and its associated implementing regulations codified at 36 CFR Part 800, the U.S. Department of Energy (DOE) requests initiation of consultation with your office on the effects of DOE providing funding to LEEDCo (project proponent) to support the development of an offshore wind renewable energy facility (Proposed Project) located within Lake Erie approximately 8 miles off Cleveland, Ohio. DOE has been designated as the lead action agency under NEPA for this project. The U.S. Army Corps of Engineers (USACE) and U.S. Coast Guard (USCG), are cooperating agencies in the NEPA process.

The Proposed Project would consist of the construction, operation, maintenance, and eventual decommissioning of up to six wind turbine generators that would generate a maximum of approximately 20.7 megawatts (MW) of electricity, inter-array cables which would connect the wind turbines together, and a submarine transmission cable (export cable) that would connect the project with the existing 138 kilovolt (kV) Lake Road Substation in Cleveland, Ohio.

Background

LEEDCo first initiated coordination with the State Historic Preservation Office in 2010. Since that time, LEEDCo has coordinated with SHPO regarding geo-technical and geo-physical survey work. A Project Summary Form (PSF) for the project was previously submitted.

LEEDCo has now completed a final Geophysical Survey (Phase 1 Archeological Survey) with appendix, as well as a Visual Impact Assessment and a Cultural Resources Effects Analysis. (The first two documents were previously provided; the final document is enclosed with this

consultation request). Please note that Appendix A of the Geophysical Survey, which contains geophysical data and is bound separately from the Survey, contains protected rights data which should not be published, disseminated, or disclosed to others outside of the government until November 24, 2021.

Project Description

A detailed project description is included within each report.

Undertaking

DOE has determined that providing funding to support the development of the Proposed Project constitutes an undertaking subject to Section 106 of the NHPA.

Area of Potential Effect

Consideration has been given to the potential for a range of effects that might result from the Proposed Project, including visual effects.

DOE has defined the area of potential effect (APE) to include the turbine area (approximately 2.9 miles x 0.2 miles); the cable area (approximately 8.2 miles x 0.2 miles); the inner harbor area (approximately .53 miles x 0.22 miles); plus an area within a ten mile radius of the proposed turbine site for potential visual impacts.

Historic Properties Affected

Per 36 CFR 800.4, DOE is required to identify all properties listed, or eligible for listing in the National Register of Historic Places which may be affected by the proposed undertaking.

A Phase 1 Archaeological Survey for the lake APEs was completed for the Proposed Project. From this survey, DOE has determined that no historic properties would be affected by the marine portion of the Proposed Project.

In addition, a viewshed analysis and cultural effects report have been completed for the Proposed Project. These analysis considered visual impacts within the entire 10 mile APE. The analysis identifies 122 sites and 25 districts within the 10 mile APE that are listed on the National Register of Historic Places. However, a vast majority of those are not in the viewshed of the turbines. Based upon the photographs generated with the overlying depiction of the turbines and their respective size and location in relation to the various historically sensitive areas investigated as part of the viewshed analysis, it was determined four listed sites (the Universal Company Dock and Warehouse, USS COD, U.S. Coast Guard Cleveland harbor station, and Cleveland East and West Pierhead Lights) as well as the Clifton Park Lakefront District, would have uninterrupted views of the Proposed Project. In all of these locations, the turbines on the horizon will appear as small

structures, when visible, and therefore will not diminish the integrity of any of these properties significant historic features.

Tribal Consultation

On September 2, 2016 USACE, DOE and USCG sent jointly signed letters to 25 tribes describing the Proposed Project and offering to engage in consultation and/or government to government consultation. In the two weeks after sending the letters DOE followed up with a phone call to each tribe, again inviting all tribes to engage in consultation. Three tribes requested follow-up contact with DOE. After following up with each of the three Tribes, DOE has not received any additional responses or requests. DOE will continue to reach out to the Tribes during the remainder of the NEPA process.

Assessment of Effect

Based on information in the Phase 1 Archaeological Survey, the Visual Impact Assessment, and the Cultural Resources Effects Analysis, DOE has determined that no historic properties would be adversely affected by its action of funding the Proposed Project.

DOE respectfully request your concurrence in its conclusion that no historic properties would be adversely affected by its actions. Please send any correspondence to:

U.S. Department of Energy
Golden Field Office
Attn: Roak Parker
15013 Denver West Parkway
Golden, CO 80401

If you have any questions or require any additional information, please contact me at (720)356-1645 or roak.parker@ee.doe.gov.

Sincerely,

A handwritten signature in black ink, appearing to be 'R. Parker', with a long horizontal flourish extending to the right.

Roak Parker
Environmental Protection Specialist



In reply refer to:
2010-CUY-10925

July 28, 2017

Roak Parker, Environmental Protection Specialist
US Department of Energy
15013 Denver West Parkway
Golden, CO 80401

RE: Section 106 Review; Geophysical Survey, Visual Impact Assessment, and Cultural Resources Assessment for the Icebreaker Offshore Wind Farm Project; Lake Erie; Cleveland; Cuyahoga County; Ohio

Dear Mr. Parker:

This letter is in response to the *Section 106 Geophysical Survey Review for Icebreaker Wind, Appendix A: Icebreaker Offshore Wind Demonstration Project 2016 Marine Geophysical Survey Results*, and the *Visual Impact Assessment* received May 19, 2017, as well as the *Cultural Resources Effects Analysis*, received June 30, 2017, regarding the proposed Icebreaker Offshore Wind Farm Project in Lake Erie north of Cleveland in Cuyahoga County, Ohio. The comments of the State Historic Preservation Office are made in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended, and the associated regulations at 36 CFR Part 800.

In regards to the *Section 106 Geophysical Survey Review for Icebreaker Wind* (archaeological report) and the associated *Appendix A: Icebreaker Offshore Wind Demonstration Project 2016 Marine Geophysical Survey Results* (Appendix A), this office has several concerns about the information provided. These concerns are based on provision of adequate information for review of the findings, especially in comparison with the Bureau of Ocean Energy Management's Office of Renewable Energy Programs *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585*. These are the guidelines recommended for use in completing the survey and providing information to this office in our letter of August 5, 2016. In general, it appears that the geophysical survey was conducted consistent with these guidelines. However, information provided in the archaeological report and Appendix A does not meet key requirements outlined in the *Contents of Marine Archaeological Resources Assessment Reports* found in the aforementioned guidelines.

Of highest concern is the fact that Appendix A does not include images of all the side-scan sonar contacts identified. While 455 side-scan sonar contacts were identified, only approximately 340 side-scan sonar contact images are provided in Appendix A. It appears that the approximately 115 contacts not pictured in Appendix A are shown on the project maps, but they are not labeled so it is impossible to determine exactly where the contacts were identified and what they looked

like. According to the archaeological report, all side-scan sonar images are provided in Appendix A, but this is not the case. In addition, the submitted sonar contact images include the target selection icon directly overlaid on the sonar image. Sonar contact images should be free of annotation and obscuring details such as the target selection icon.

An additional area of high concern involves the provided 8.5-inch x 11-inch maps in Appendix A, which appear in an unlabeled section of Appendix A after the section *Appendix X: Sound Velocity Profiles*. These maps are far too small for reasonable study by this office. These maps should be printed at a significantly larger size with a large-scale plotter so that the various components and symbols are visible and legible. While the digital copy of Appendix A allows for better viewing of these maps, this is not ideal as the entire map and legend cannot be viewed at the same time. Similarly, the use of multiple symbols for side-scan sonar targets, as well as the lack of labeling of many side-scan sonar targets described above, make interpretation of these maps extremely difficult. We recommend providing large printed versions of these maps, labeling all side-scan sonar contacts, and using only one symbol for all side-scan sonar targets as suggested in the *Contents of Marine Archaeological Resources Assessment Reports* of the aforementioned guidelines. Larger map sizes and consistency in labels/symbols will allow for adequate interpretation of the maps by this office.

Another area of significant concern involves confusion about the processing and analysis, by the archaeological consultant, of geophysical survey data provided by the geophysical survey company. The archaeological report does not clarify when or with what tools/software the archaeologist processed and analyzed the data. It is unclear if Appendix A represents the sole source of data used by the archaeologist in forming his recommendations. Did the archaeologist use only Appendix A or did he have access to the actual geophysical survey data? Did the archaeologist process and analyze all of the geophysical survey data separately from the interpretation completed by the geophysical surveyors? If Appendix A was the sole source of data used by the archaeologist, then the issues of concern about Appendix A outlined above are of even greater importance since the archaeological consultant was working from an incomplete data set with inadequate mapping. If the archaeological consultant was not present during the geophysical survey and did not contribute to the processing and analysis of the data as presented in Appendix A, the archaeological consultant must be provided all geophysical survey data sets for separate processing and analysis. The archaeological consultant's recommendations should be based upon this separate and complete analysis of all geophysical survey datasets.

The final area of major concern involves failure to provide the digital geophysical survey data along with the digital report copies. All digital geophysical survey data should be provided to this office as outlined in the *Digital Data* section of the *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585* (pages 19-21). If requested, this data can be kept confidential just as was requested for Appendix A.

This office also has some more minor concerns and recommendations regarding changes to the archaeological report and Appendix A. These include:

OHIO HISTORY CONNECTION

800 E. 17th Ave., Columbus, OH 43211-2474 • 614.297.2300 • ohiohistory.org

- Regular and tie line spacing should be clearly indicated in the archaeological report and Appendix A. Page 29 of the archaeological report indicates that “Lane Size” for the side-scan sonar was 27 m, but it is unclear if this refers to lane spacing. Page 32 of Appendix A only mentions tie line spacing for the Inner Array Cable Route. Regular line spacing is not mentioned for this survey area and line spacing, whether regular or tie line, is not mentioned for any of the other survey areas.
- Survey track lines on the maps should be labeled with survey track line number and direction.
- The side-scan sonar contact tables should include the survey line number (or numbers) on which the contact was identified as well as the shadow height of the contact, if applicable.
- The magnetic anomalies table should include the survey line number (or numbers) on which the anomaly was identified, duration, height of the magnetometer above the lake bed, and any sub-bottom features associated with each anomaly.
- The archaeological report should include a discussion of any correlation between sub-bottom profiler targets, magnetic anomalies and/or side-scan sonar contacts. Appendix A indicates numerous hyperbolic reflections just underneath the lake bed; the archaeological report and Appendix A indicate that these are all interpreted as sub-surface gas. However, hyperbolic reflections can be an indication of a buried cultural resource. This is even more likely when a hyperbolic reflection is associated with a magnetic anomaly, which appears to be the case for some of the hyperbolic reflections shown in Appendix A. These correlations should be discussed in the archaeological report.
- The archaeological report should be corrected in regards to the number of magnetic anomalies identified during the geophysical survey. The archaeological report text indicates that 178 magnetic anomalies were identified (page 44) while the magnetic anomalies list (pages 45-47) includes 218 anomalies.
- The archaeological report should specify the acreage or square nautical miles of the three separate survey areas.

In regards to the *Cultural Resources Effects Analysis* (survey), the survey considered visual impacts within a 10-mile Area of Potential Effects (APE) for the proposed project. Within the APE, the survey identified 122 individual properties and 25 districts that are listed on the National Register of Historic Places (NRHP). The survey determined that the vast majority of these properties are not within the view shed of the proposed turbines. However, the survey did determine that four NRHP listed properties (including one that is also a National Historic Landmark) will have uninterrupted views (with greater than 50% project visibility) of the proposed turbines. These four historic properties include:

- The Universal Company Dock & Warehouse (NRHP# 83001954)
- USS COD Submarine (NRHP# 86000088 and a National Historic Landmark)
- U.S. Coast Guard Cleveland Harbor Station (NRHP# 76001390)
- Cleveland East and West Pierhead Lights (NRHP# 91001855 and 83001950)

Mr. Roak Parker
July 28, 2017
Page 4

Your letter dated June 29, 2017 states that the turbines on the horizon will appear as "small structures when visible and that these turbines will not diminish the integrity of any of these properties significant historic features" and therefore, the undertaking will have no adverse effect to historic properties. Our office does not concur with this finding. The SHPO believes that the proposed project will have an indirect, adverse visual effect to the four historic properties. The undertaking will change the character of the properties' settings that contribute to their historic significance and the undertaking will introduce visual elements that are out of character with the historic setting of the historic properties (per 36 CFR 800.5 (a) (2) (v), an adverse effect can include: "introduction of visual, atmospheric or audible elements that may diminish the integrity of the property's significant historic features.")

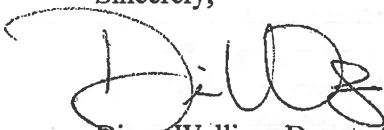
Pursuant to 36 CFR Section 800.6 (a) (1), the agency and applicant must work to develop and evaluate project alternatives that would avoid, minimize, or mitigate the adverse effect on historic properties that will result from this project. If it is agreed that no alternative can be found, the DOE, the applicant, and SHPO need to agree on appropriate mitigation for the construction of the turbines. The process used to reach this decision and the mitigation will be memorialized in a Memorandum of Agreement.

We recommend that Consulting Parties be identified and or contacted so that they may provide comments on options to avoid, minimize or mitigate the adverse effect. The DOE should notify the Advisory Council on Historic Preservation (ACHP) that consultation to resolve the adverse effect has been initiated with our office. After the ACHP has been notified, we will move forward in trying to resolve the adverse effect through avoidance, minimization, or mitigation and the execution of the MOA that is acceptable to all parties.

In addition, we encourage you to continue in your efforts to reach out to the appropriate Tribes. Historically, Tribes have had specific interest in projects involving waterways.

We look forward to continuing coordination on this project, including receipt of the revised reports, in order to provide further comments. If you have any questions, please contact me at dwelling@ohiohistory.org or (614) 298-2000. Thank you for your cooperation.

Sincerely,



Diana Welling, Deputy State Historic Preservation Officer for
Resource Protection and Review

Serial No. 1069469

cc: Dr. Eric Boyle, Federal Preservation Officer, Department of Energy, 1000 Independence Ave.,
SW, Room 7E-054, Washington, DC 20585-1000
Christopher Wilson, Advisory Council on Historic Preservation, 401 F Street NW, Suite 308,
Washington, DC 20001-2637
Geoffrey Burt, National Park Service, National Historic Landmarks Program, 601 Riverfront
Drive, Omaha, NE 68102



In reply refer to:
2010-CUY-10925

October 3, 2017

Mr. Roak Parker
NEPA Specialist
US Department of Energy – Energy Efficiency and Renewable Energy
15013 Denver West Parkway
Golden, CO 80401
Roak.Parker@ee.doe.gov

Re: Icebreaker Wind Farm Project, Cleveland, Cuyahoga County, Ohio

Dear Mr. Parker:

This letter is in response to the September 1, 2017 receipt of the letters by Ms. Beth A. Nagusky of Icebreaker Windpower, Inc., (dated August 23, 2017) and Patrick Heaton et. al. of Environmental Design & Research (EDR) (dated August 21, 2017). The comments of Ohio's State Historic Preservation Office are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-4). The comments of the Ohio State Historic Preservation Office are also made in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended, and the associated regulations at 36 CFR Part 800.

The submittal is a response by Icebreaker Windpower, Inc. and EDR to a letter dated July 28, 2017 by our office concerning the submittal of the *Section 106 Geophysical Survey Review for Icebreaker Wind, Appendix A: Icebreaker Offshore Wind Demonstration Project 2016 Marine Geophysical Survey Results*, and *Visual Impact Assessment* received by our office on May 19, 2017 and the *Cultural Resources Effects Analysis* received by our office on June 30, 2017.

Ms. Nagusky of Icebreaker Windpower, Inc. and Mr. David VanZandt of VanZandt Engineering did a thorough job addressing questions put forth by our July 28, 2017 letter. Our outstanding comments and requests are summarized below.

- This office requested that both the geophysical survey and the report would follow the Bureau of Ocean Energy Management (BOEM), Office of Renewable Energy Programs' (OREP's) *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585*. A report received by this office on July 27, 2015, which did not follow the format of these or other BOEM guidelines, was determined to be sufficient for the initial phase of the project. As stated in our response letter of July 30, 2015, "Since disturbance to the project area during the geotechnical investigation will be limited due to the narrow scope of the work, the data collection to date and interpretation discussed in the report is adequate for assessment of the effects of the geotechnical survey phase of the project." This office understood that future reports submitted prior to actual wind farm construction would provide a more rigorous discussion of survey,

processing, and analysis in the format used for offshore energy development in the Atlantic and Gulf of Mexico.

- We understand that the BOEM OREP *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585* – recommended for use in our letter of August 5, 2016 – changed this past March. The report format outlined in the July 2015 guidelines may be used in revising the report rather than the March 2017 guidelines. The July 2015 guidelines were those referenced by this office during review of the submitted archaeological report and *Appendix A*. We are enclosing a copy of the July 2015 guidelines for reference.
- Please include images of all side-scan sonar contacts identified (including those identified as point source reflectors and low reflectivity patches), without any target selection icon overlays or other annotation, in an updated version of *Appendix A*.
- Please provide large, plotted maps of the “2016 Cable Route Geophysical Survey, Enclosures 1-9,” as was found on the last pages of the *Appendix A* submittal. The maps included in the report were 8.5 x 11 in size and cannot be easily read.
- Please use only one symbol for all side-scan sonar contacts on project maps.
- Please label all side-scan sonar contacts on project maps, including those identified as point source reflectors and low reflectivity patches.
- Please include all regular and tie line spacing in the archaeological report and *Appendix A*.
- Please label survey track line number and direction on appropriate maps.
- Please include the survey line number/s on which the contact was identified on the side-scan sonar contact tables.
- Please include survey line number/s on which the anomaly was identified, duration of the anomaly, height of the magnetometer above the lakebed, and any sub-bottom features associated with each anomaly on the magnetic anomalies table.
- Please include in the archaeological report the discussion provided in the letter of the correlation between sub-bottom profiler targets, magnetic anomalies, and/or side-scan sonar contacts.
- Please include in the archaeological report the discussion provided in the letter of the archaeological consultant’s separate processing and analysis of the raw geophysical survey data, including the software used. The archaeological report should specify how the archaeological consultant’s interpretation differed from that of the geophysical survey consultant (e.g., how many side-scan sonar contacts and magnetometer targets did the archaeological consultant interpret from the data).
- Please include the acreage or square nautical miles of the three separate survey areas in the archaeological report.
- Please provide all digital geophysical survey data, as outlined in the BOEM OREP guidelines, along with the digital report copies with your next submittal.
- Should the applicant prefer, rather than providing a revised archaeological report and *Appendix A*, the applicant may instead provide a revised and significantly expanded archaeological report formatted per BOEM OREP guidelines and that includes all of the sections, tables, images, maps, and other information outlined in said guidelines.

OHIO HISTORY CONNECTION

800 E. 17th Ave., Columbus, OH 43211-2474 • 614.297.2300 • ohiohistory.org

Mr. Roak Parker
October 3, 2017
Page 3

In addition, the SHPO is appreciative of the additional information provided by EDR regarding the visual effects of the undertaking on the following four historic properties:

- The Universal Company Dock & Warehouse (NRHP #83001954)
- The USS COD Submarine (NRHP #86000088 and a National Historic Landmark)
- U.S. Coast Guard Cleveland Harbor Station (NRHP #76001390)
- Cleveland East and West Pierhead Lights (NRHP #9100185 and 83001950)

Although the information provided by EDR is extremely thorough, the SHPO maintains that the undertaking will change the character of the properties' setting and feeling that contribute to their historic significance. In addition, the undertaking will introduce visual elements that are out of character with the historic setting of the historic properties. Per 36 CFR 800.5 (a) (2) (v), an adverse effect can include: "introduction of visual, atmospheric or audible elements that may diminish the integrity of the property's significant historic features."

Therefore, pursuant to 36 CFR Section 800.6 (a) (1), we encourage the DOE and applicant to work to develop and evaluate project alternatives that would avoid, minimize, or mitigate the adverse effect on historic properties that will result from this project. If it is agreed that no alternative can be found, the DOE, the applicant, and SHPO need to agree on appropriate mitigation for the construction of the turbines. The process used to reach this decision and the mitigation will be memorialized in a Memorandum of Agreement.

We also recommend that Consulting Parties be identified and/or contacted so that they may provide comments on options to avoid, minimize or mitigate the adverse effect. Most notably, the National Park Service should be included in the consultation since one of the affected properties (the USS COD Submarine) is a National Historic Landmark. In addition, we encourage you to continue in your efforts to reach out to the appropriate Tribes. Historically, Tribes have had specific interest in projects involving waterways. Also, the DOE should notify the Advisory Council on Historic Preservation (ACHP) that consultation to resolve the adverse effect has been initiated with our office. Finally, after the ACHP has been notified, we will move forward in trying to resolve the adverse effect through avoidance, minimization, or mitigation and the execution of the MOA that is acceptable to all parties.

If you have any questions, please contact me at dwellling@ohiohistory.org or Krista Horrocks at khorrocks@ohiohistory.org or at (614) 298-2000.

Thank you for your cooperation.

Sincerely,



Diana Welling, Deputy State Historic Preservation Officer & Department Head for Resource
Protection & Review
State Historic Preservation Office

Serial No. 1070402

OHIO HISTORY CONNECTION

800 E. 17th Ave., Columbus, OH 43211-2474 • 614.297.2300 • ohiohistory.org

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Ocean Energy Management, Office of Renewable Energy Programs

July 2015

Guidelines for Providing Archaeological and Historic Property Information
Pursuant to 30 CFR Part 585

Introduction

The U.S. Department of the Interior, Bureau of Ocean Energy Management (BOEM), Office of Renewable Energy Programs requires an applicant to submit a detailed plan of its proposed activities for review prior to approving the installation of any renewable energy facility, structure, or cable on the Outer Continental Shelf (OCS). Depending upon the nature of the proposed activities, these may include a Site Assessment Plan (SAP), a Construction and Operations Plan (COP), a General Activities Plan (GAP), or other type of plan (collectively referred to as plans in these guidelines). As part of a plan submission, BOEM requires detailed information regarding the nature and location of historic properties that may be affected by the proposed activities. This information is used to assist the bureau in meeting its obligations under Section 106 of the National Historic Preservation Act (NHPA) (36 CFR § 800) and the National Environmental Policy Act (NEPA).

The following guidelines provide recommendations on appropriate methods for identifying historic properties, as well as the format for providing this information to BOEM. Intended for current and prospective lessees, developers, and the archaeologists and other historic preservation professionals working on their behalf, these guidelines are tailored to the site-specific surveys conducted to identify historic properties that may be impacted by offshore renewable energy activities. These guidelines are not intended as a one-size-fits-all methodology for conducting historic property identification. Rather, these guidelines provide a framework for applicants to design historic property identification surveys that will provide BOEM with information sufficient to conduct the necessary review of a plan.

Please be aware that the results of surveys submitted to BOEM that do not follow these guidelines may be determined insufficient for the bureau to conduct its review of a plan under NEPA and NHPA. Should BOEM determine that the submission is insufficient, BOEM may request additional information. If an applicant fails to provide the requested information, BOEM may disapprove the plan.

Elements of these guidelines may be required under the terms of a lease or condition of plan approval. Moreover, a lease or plan condition may also have requirements that are different from, or in addition to, those discussed in these guidelines. Applicants should note that while these guidelines and conditions in their lease(s) or plan(s) may be similar, applicants must comply with the terms of their respective lease(s) or plan conditions.

These guidelines may be updated periodically as new information or methods become available. This version replaces the guidelines published November 9, 2012. Previous versions of this

document included combined guidance for geophysical and geological, hazard, and archaeological surveys. This current version includes guidance specific to historic property identification. Guidelines related to geophysical, geological, and hazard surveys are now presented in the document *Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information Pursuant to 30 CFR Part 585*. These documents are intended to be used in tandem to inform the survey work an applicant conducts to gather the information required in a plan.

I. Historic Properties and Their Identification

What Are Historic Properties?

BOEM requires detailed information regarding the nature and location of historic properties that may be affected by an applicant's proposed activities to conduct review of the plan under Section 106 of NHPA. As defined in the Section 106 regulations (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. This term also includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria.

Further information regarding the National Register of Historic Places and categories of historic properties can be found in *National Register Bulletin 15, How to Apply the National Register Criteria* (National Register of Historic Places, 2002).

Where Should Surveys Take Place?

Applicants should provide a detailed description of the methods and results of the surveys they conduct to identify historic properties that may be located within the geographic area or areas where their proposed activities will take place. The scope of these geographic areas should include the following:

- The depth and breadth of the seabed potentially impacted by any bottom-disturbing activities;
- The depth and breadth of terrestrial areas potentially impacted by any ground disturbing activities;
- The viewshed from which renewable energy structures, whether located offshore or onshore, would be visible; and
- Any temporary or permanent construction or staging areas, both onshore and offshore.

How Are Historic Properties Identified?

The geographic area, or areas, within which an applicant's proposed activities have the potential to impact historic properties may include diverse environments, both onshore and underwater, that necessitate different approaches to historic property identification.

BOEM recommends the following:

- For the identification of historic properties on or within the seabed located on the OCS, historic property identification should be conducted and reported in accordance with Sections II and III of this document.
- For the identification of historic properties (1) on or within the seabed located in state submerged lands or within onshore terrestrial areas, or (2) within the viewshed of proposed renewable energy structures, historic property identification should be conducted and reported following the guidance published by the affected State Historic Preservation Office (SHPO).
- If the area of potential effects is located on tribal lands, historic property identification should be conducted following the guidance provided by the Tribal Historic Preservation Officer (THPO), if a tribe has designated such an official.

As defined in the Section 106 regulations at 36 § CFR 800.16(w) and (x),

Tribal Historic Preservation Officer (THPO) means the tribal official appointed by the tribe's chief governing authority or designated by a tribal ordinance or preservation program who has assumed the responsibilities of the SHPO for purposes of Section 106 compliance on tribal lands in accordance with Section 101(d)(2) of the [National Historic Preservation] Act.

Tribal lands means all lands within the exterior boundaries of any Indian reservation and all dependent Indian communities.

BOEM recommends that an applicant contact the appropriate SHPO (or THPO, if applicable) to learn about their guidelines prior to the initiation of any such identification efforts. Please note that BOEM does not delegate its Section 106 and tribal (government-to-government) consultation responsibilities to lessees, applicants, or developers.

- Information regarding SHPOs can be found at:
<http://www.ncshpo.org/shpodirectory.shtml>
- Information regarding THPOs can be found at:
<http://www.nps.gov/thpo>

Pre-survey Coordination with BOEM

Lessees and applicants should coordinate with BOEM prior to the initiation of survey activities through both the preparation of a survey plan and a pre-survey meeting. This coordination assists in ensuring that surveys are designed and conducted in a manner that is likely to provide the information required for BOEM to review a plan. This coordination serves as an opportunity to address potential historic preservation issues or concerns well in advance of the date an applicant intends to mobilize for a survey.

Applicants should include historic property identification surveys in this planning through the participation of appropriate historic preservation staff or contractors (e.g., archaeologists,

geomorphologists, architectural historians), both in the preparation of the survey plan and in the pre-survey meeting. This coordination additionally provides an opportunity for BOEM to share existing information held by the bureau regarding known historic properties and the results of previous surveys or Environmental Studies of relevance to an applicant's project area, if available.

II. Guidelines for the Identification of Archaeological Sites on the Outer Continental Shelf

Archaeological sites that may be present on the OCS include two broad categories of resources: (1) historic period sites, such as shipwrecks and associated remains, sunken aircraft, and other maritime infrastructure; and (2) pre-contact archaeological sites once part of the terrestrial landscape and since inundated by global sea level rise during the late Pleistocene and Holocene. Pre-contact archaeological resources are those that date to the time before European contact with Native Americans.

Applicants should conduct archaeological survey on the OCS by employing both high-resolution geophysical (HRG) survey techniques and geotechnical testing. The archaeological survey should be designed, with input from a qualified marine archaeologist and specialists in other fields as appropriate (e.g., geology, geomorphology), in a manner that is capable of identifying the site types described in the preceding paragraph. A qualified marine archaeologist meets the *Secretary of the Interior's Professional Qualifications Standards* (48 FR 44738- 44739) and has experience in conducting HRG surveys and processing and interpreting the resulting data for archaeological potential.

High-resolution Geophysical Survey Techniques

The area surveyed for archaeological identification purposes should be large enough to reliably cover any portion of the project area affected by the activities proposed, including all seafloor-disturbing activities whether temporary or permanent. Seafloor-disturbing activities may include, but are not limited to: geotechnical exploration (e.g., borings, vibracores, etc.), construction and installation activities (e.g., turbine foundation placement, transmission cable installation, horizontal directional drilling, etc.), decommissioning, and any other associated anchoring or appurtenances related to these activities (e.g., anchor drop areas, anchor chain drag, jackup barges, etc.). BOEM recommends that the survey area be as large as possible in cases where uncertainty exists regarding the ultimate methods that the applicant will employ in constructing, operating, maintaining, or decommissioning the proposed project. A larger survey area will give the applicant greater flexibility for placement of structures and methods of construction, operation, and decommissioning in the future.

Line Spacing

The applicant should conduct the archaeological survey along a series of regularly spaced and parallel track lines. Tie-lines running perpendicular to the track lines also should be surveyed. The survey grid should be oriented with respect to the bathymetry, geologic structure, and proposed location of renewable energy construction activities.

Line spacing is of critical importance for archaeological identification surveys. Primary line spacing for archaeological identification surveys should not exceed 30 meters (m) throughout the project area for the magnetometer, side scan sonar, and sub-bottom profiler. Survey line spacing is dependent upon a variety of factors including water depth, the specific equipment employed, and the desired resolution of the survey data. In some instances, tighter line spacing may be necessary to acquire the appropriate level of survey coverage and data quality.

Perpendicular tie-line spacing for archaeological identification surveys should not exceed 500 m. A minimum of at least three equidistant tie-lines should be surveyed; this may mean in some instances that tighter spacing may be necessary for the tie-lines.

Project Siting Survey

A project siting survey should be employed to provide coverage of any area of bottom-disturbing activities proposed within a potential project area. Within these areas, BOEM recommends a survey conducted in a grid pattern with primary line spacing at 30 m and a maximum tie-line spacing of 500 m. The survey should provide coverage of the entire seafloor area that could be physically disturbed by the proposed activities including geotechnical exploration; the installation of data collection structures (e.g., meteorological towers, buoys, or other site assessment equipment); the installation of wind turbine generators and any associated cables or equipment (e.g., electrical service platforms); and any other project-related activities that have the potential to impact the seafloor. The area surveyed should provide sufficient coverage to also account for anchors or any other equipment that may contact the seafloor during the proposed activities.

Transmission Cable Route Surveys

Cable route surveys should consist of a corridor following the full length of the transmission route. The survey pattern along the corridor should consist of a survey line run along the proposed cable route centerline, and parallel survey lines offset on each side of the centerline at a 30-meter line spacing. A minimum of three offset parallel lines on each side of the centerline are recommended and the ultimate number of parallel offset lines surveyed should be sufficient to cover the entire area of potential physical disturbance related to the proposed cable installation and operation. This potential area of disturbance includes, but is not limited to, areas where lay barge anchors may be placed during cable installation, areas where cable protection (e.g., rock berms, concrete mattresses, etc.) may be installed, areas of seafloor leveling, and areas of debris removal prior to cable installation. The survey lines immediately adjacent to the centerline must provide side scan sonar coverage of the nadir of the centerline to identify potential targets located directly on the cable route centerline. Perpendicular tie-lines at a maximum spacing of 500 m should also be surveyed throughout the cable corridor.

Archaeological Identification Survey Instrumentation

The geophysical survey instruments of primary importance in the identification of archaeological sites on the OCS are the magnetometer, side scan sonar and sub-bottom profiler. Operational considerations and data quality recommendations that are of specific importance for their use in identifying archaeological sites on the OCS are described below. Refer to BOEM's

Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information Pursuant to 30 CFR Part 585 for further information regarding swath bathymetry systems and additional recommendations regarding geophysical survey methods.

Magnetometer, side scan sonar and sub-bottom profiler systems, however, are not the only instruments that provide information useful in the identification and interpretation of archaeological resources. Applicants should provide their qualified marine archaeologists with access to all available geophysical data sets acquired during a survey for use in informing the archaeological analysis and reporting described in Section III, below.

The applicant should deploy instrumentation in a manner that minimizes interference between systems and the survey vessel, results in the least environmental impact practicable, and records all data at the optimal sampling rate of the equipment used. Survey instruments should be towed at a speed appropriate for the equipment and in a manner that ensures acquisition of the highest quality data possible (typically not exceeding 4 knots). All systems should interface with the navigation system to ensure proper integration of positioning information.

A state-of-the-art navigation system with sub-meter accuracy should continuously determine the surface position of the survey vessel. Position fixes should be digitally logged continuously along the vessel track. Geodesy information should be clearly presented and consistent across all data types.

BOEM recommends the use of a vessel-mounted acoustic positioning system, such as ultra-short baseline (USBL) positioning, to improve the reliability of positioning towed sensors. If a vessel-mounted acoustic positioning system is not utilized, layback distances should be calculated, recorded, and cross-checked with feature mating techniques to provide accurate positioning of towed sensors. Refer to BOEM's *Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information Pursuant to 30 CFR Part 585* for further information.

Magnetometer

For HRG surveys conducted in water depths of 100 m or less, a magnetometer should be employed to detect ferrous metals or other magnetically susceptible materials. Overhauser or optically pumped systems are preferred. The magnetometer should be towed as near as possible to the seafloor and in a way that minimizes interference from the vessel hull and the other survey instruments. The magnetometer altitude should not exceed 6 m above the seafloor. An altimeter should be used to ensure the proper height of the magnetometer in the water column. The altitude of the magnetometer should be continuously recorded during data acquisition along survey.

Magnetometer sensitivity should be 1.0 gamma (γ ; 1.0 nano-Tesla [nT]) or less. Background noise level should not exceed a total of 3.0 γ peak to peak. The data sampling rate should be greater than 4.0 Hz to ensure sufficient data point density. Magnetometer data should be recorded on a digital medium in such a way that can be linked electronically to the positioning data. Survey line, time, position, altitude, and speed should be annotated on all output data.

Side Scan Sonar

A side scan sonar system should be used to provide continuous planimetric imagery of the seafloor to identify potential archaeological resources. To provide sufficient resolution of seafloor features, BOEM encourages the use of a system that operates at as high a frequency as practicable based on the factors of line spacing, instrument range, and water depth. For archaeological resource surveys, a system that operates at a 500-kHz frequency or greater is recommended. The sonar system must be capable of resolving small, discrete targets 0.5 m in length at maximum range.

The instrument range should be set to provide at least 100% overlapping coverage (i.e., 200% seafloor coverage) between adjacent primary survey lines. The side scan sonar sensor should be towed above the seafloor at a height that is 10 to 20 % of the range of the instrument (Table 1).

Data should be digitally recorded and visually displayed to monitor data quality and identify targets of interest during acquisition. The data should be post-processed to improve data quality for interpretation and mapping, for example, adjusting for slant range effects and variable speed along line.

Table 1: Side Scan Sonar Coverage Area

Instrument Range in Meters/per Channel	Height of instrument in Meters above Seafloor at 10% of Range	Height of Instrument in Meters above Seafloor at 20% of Range
30	3	6
50	5	10
60	6	12
75	7.5	15
100	10	20
200	20	40

Sub-Bottom Profiler

A sub-bottom profiler system should be used for identifying and mapping buried geomorphological features of archaeological potential that may exist within the horizontal and vertical footprint of a proposed project. The selection of the appropriate sub-bottom frequency and system to achieve this goal should be based on an understanding of both the geomorphology of the area an applicant is operating within (including the potential depth of the Holocene-Pleistocene unconformity) and the parameters of the proposed project (including the maximum depth of disturbance from the proposed renewable energy activities).

The sub-bottom system should be capable of achieving a depth of penetration and resolution of vertical bed separation that is sufficient to allow for the identification and cross-track mapping of

features of archaeological potential (e.g., shell middens, paleochannels, levees, inset terraces paleolagoon systems, etc.). As a minimum standard, the sub-bottom profiler system employed should be capable of achieving a resolution of vertical bed separation of at least 0.3 m in the uppermost 10 to 15 m of sediments, depending on the substrate.

Chirp systems may be suitable for achieving this level of archaeological information; however, in some circumstances medium penetration seismic systems, such as a boomer, bubble pulser, or other low frequency system, may be necessary to provide archaeological information on sedimentary structure that exceeds the depth limitations of Chirp systems. For all sub-bottom systems used, the data should be digitally recorded to allow signal processing to improve data quality, and exported to a workstation for integrated interpretation and mapping.

Geotechnical Investigation

Geotechnical testing is a bottom-disturbing activity that has the potential to impact archaeological sites, if present, within the area of disturbance. Conversely, geotechnical testing may also be a useful strategy for identifying and testing potential archaeological sites (e.g. through vibracores, grab samples, gravity cores, etc.). To accommodate both of these scenarios, BOEM recommends that applicants conduct the HRG survey *prior* to geotechnical testing and utilize the results of the HRG survey in planning the geotechnical testing strategy. Sufficient time for geophysical data processing and interpretation should be allowed to either plan for the avoidance of any potential archaeological sites during geotechnical investigation or to properly plan the location, methods, and subsequent laboratory analyses to be completed towards the assessment of potential sites.

If an applicant intends to impact a potential archaeological site for the purpose – at least in part – of historic property identification or National Register eligibility testing and evaluation, they should provide BOEM with written notification of these activities. This notification should include a detailed description of the potential site or sites identified through geophysical survey (including maps and geophysical data samples) and a research design for the proposed testing activities. The research design should include a discussion of the goals and purpose of the testing, description of the testing methodology, illustration of the location and extent of the testing, and description of the analytical methods that will be employed to further characterize and investigate the samples.

BOEM encourages applicants to coordinate with their qualified marine archaeologist during the planning for geotechnical testing and, to the extent possible, to incorporate the relevant results of geotechnical investigation into the archaeological analysis. Applicants should note that, in some cases, the information gathered during geotechnical investigation for engineering or siting purposes may provide information that informs the archaeological investigation, even if not explicitly designed to do so. Refer to BOEM's *Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information Pursuant to 30 CFR Part 585* for further information regarding geotechnical exploration.

Direct Sampling Methods

Geophysical survey alone may not provide sufficient information to identify all potential archaeological sites on the OCS, particularly buried geomorphic features of archaeological interest identified via sub-bottom profiler survey. Direct sampling of these features may be necessary to gather additional site-specific information that corroborates the interpretation of the sub-bottom profiler data. In some cases, direct sampling may be the only available method of confirming the presence or absence of horizons of archaeological potential within features of interest identified during geophysical survey.

The method of direct sampling selected should be based on consideration of the bottom type being sampled and the burial depth of the feature of interest. BOEM recommends that applicants utilize methods that will gather the most information practicable while causing the least impact to a potential site, if present.

Laboratory Testing

Direct samples should be inventoried and logged. Logs should include documentation of stratigraphy, sediment type, Munsell color, and other relevant attributes. Copies of all logs should be included in the archaeological report; see Section III below. If direct samples are archived, the storage repository should be documented in the archaeological report. If samples are not archived, the report should state this.

For further testing or sub-sampling, applicants should consider the full suite of analyses available and select those that will best inform the archaeological interpretation. These methods may include, but are not limited to, macro-sedimentary analysis, point count analysis, radiometric dating, pollen analysis, faunal analysis, P-wave velocity, magnetic susceptibility, foraminifera analysis, and geochemical analysis.

Other Methods of Direct Investigation

In addition to geophysical survey and geotechnical investigation, other methods of direct investigation may be warranted for confirming the presence or absence of archaeological sites on the OCS. These methods may include diver investigation, remotely operated underwater vehicle (ROV) survey, underwater excavation, etc. BOEM recommends that applicants contact the Office of Renewable Energy Programs for further guidance on additional methods of direct investigation prior to initiating any such activities.

III. Contents of Archaeological Resources Assessment Reports

The Archaeological Resource Assessment Report (Report) should be a stand-alone document that is submitted with a plan. The Report represents an evaluation and synthesis of the data (including desktop research, HRG survey, and geotechnical testing) gathered during survey activities for the purpose of identifying potential archaeological resources on the OCS. The

Report and analyses presented therein should be prepared by a qualified marine archaeologist and specialists in other fields as appropriate (e.g., geology, geomorphology, etc.).

Applicants should submit the Report to BOEM in complete form. Any changes to an applicant's plan(s) that may occur after submittal of a report to BOEM, as a result of either changes in the design of the proposed project or a request for additional information made by BOEM, should be incorporated into a revised report.

The Report should include the following components, organized as follows:

Front Matter

This section of the Report includes the cover, executive summary, non-technical summary, table of contents, and lists. Lists include tables, figures, and appendices.

The non-technical summary is a stand-alone description of the survey that is appropriate for public dissemination. The non-technical summary should exclude specific information on the exact geographic coordinates of potential archaeological sites identified during the survey, specific traditional religious use information, or proprietary information. The purpose of the non-technical summary is to provide a general description of the survey activities, results, and any potential archaeological resources identified that BOEM may choose to share with the public.

Introduction

This section of the Report should provide a clear and detailed description of the activities considered under the plan, including both: description and illustration of all proposed bottom-disturbing activities and description and illustration of the surveyed area including the OCS lease number(s), block number(s), and lease area(s). This section also introduces the findings of the Report, including how many potential historic properties were identified and how many historic properties may be impacted by the proposed undertaking. The narrative should be accompanied by maps, charts, and plan drawings, as appropriate, illustrating these points. This includes at least one reproducible geographic area map (generally page size = 8.5" x 11" and/or 11" x 17" fold-out) orienting the proposed facility and/or transmission cable route relative to the coastline and nearby geographic features.

Cultural and Environmental Context

This section of the Report includes an analysis of the potential for pre-contact and historic period sites to be located within the survey area and its immediate vicinity. In addition to desktop research, archival research and other methods of conducting background research, applicants are also encouraged to contact BOEM for additional information held by the bureau regarding known historic properties and the results of previous surveys or Environmental Studies of relevance to an applicant's project area, if available.

For pre-contact sites, the context should include:

- A review of relevant literature on late Pleistocene and Holocene geology, paleogeography, marine and coastal prehistory, and previous archaeological resource reports for the area, if available.
- A detailed analysis and reconstruction of regional sea level rise and discussion of the sea level rise curves or other models used in the analysis. Sea level rise simulations should model and predict the evolution of the shoreline within the survey area at various time intervals.
- Discussion of onshore archaeological site distribution patterns that may serve as analogies for modeling settlement patterns on formerly subaerial portions of the survey area.
- A synthesis of the above information into a model that reconstructs portions of the survey area that may have been subaerially exposed, when this exposure would have occurred, and what cultural groups and site types could be expected within these areas. This includes discussion of the types of relict geomorphic features that may exist in the survey area and consideration of the archaeological potential of these features. This section also should include consideration of the potential for these landscape features to have survived marine transgression.
- A discussion of the potential to identify and evaluate pre-contact sites that may be present, based on the capabilities of current technology, the thickness and composition of overlying sediments, or other factors.

For historic period sites, the context should include:

- A review of existing records for known or reported shipwrecks or other sites within and adjacent to the survey area.
- Review of previous archaeological resource reports for the area, if available.
- A discussion of the potential for shipwreck preservation in terms of bottom sediment type and thickness, and the effects of past and present marine processes in the survey area.
- A discussion of the potential to identify and evaluate shipwreck sites that may be present, based on the capabilities of current survey technologies, the thickness and composition of overlying sediments, or other factors.

Field Methodology

This section of the Report discusses the methods used to obtain the survey data, the exact equipment used, dates the survey was conducted, and other salient features of the survey.

Discussion of the survey methods should include:

- A list describing the functional responsibilities and duties of the personnel involved in survey planning, fieldwork, and Report preparation.
- A description of survey instrumentation including, as appropriate, scale and sensitivity settings, sampling rates, frequency, and tow heights above the seafloor.
- A description or diagram of the survey vessel, including its size, sensor configuration, and navigation antenna location.

- A summary of field operations including vessel speed, course changes, sea state, weather conditions, and unusual incidents.
- A description of survey procedures including a statement of survey and record quality and a comparison of data from survey line crossings.
- A discussion of any data acquisition problems or issues that may have affected the ability of the archaeologist to identify and analyze potential cultural resources in the surveyed area.

Results and Interpretation

This section of the Report provides lists, narratives, and charts detailing the results of the survey. The applicant should key potential archaeological resources to charts. Representative data samples from each survey instrument should be included to demonstrate the quality of the records. At a minimum, the results should include the following information:

- A table of all magnetic anomalies identified during the survey keyed to the Archaeological Resource Charts. At a minimum, the table should include:
 - Anomaly ID
 - Lease block
 - Survey line number
 - Gamma intensity
 - Duration (m)
 - Characterization of the anomaly as a dipole, positive (+) or negative (-) monopole, or complex signature
 - Towfish height above the seafloor
 - North American Datum 1983 (NAD 83) coordinates of the center of each unidentified anomaly in decimal degrees to 5 decimal places
 - Association with side scan sonar contacts
 - Recommended avoidance distance, if applicable.
- Analysis and interpretation of contoured magnetic data keyed to the Archaeological Resource Charts. This should include discussion of the methods used to process and present the data including the contour interval used.
- A table of all side scan sonar contacts identified during the survey keyed to the Archaeological Resource Charts. At a minimum, the table should include:
 - Side scan sonar contact ID
 - Lease block
 - Survey line number
 - Target length (m)
 - Target width (m)
 - Target height (m)
 - Target shadow (m)
 - Target description
 - Associated magnetic anomalies
 - NAD 83 coordinates of the target in decimal degrees to 5 decimal places

- Original source file name
 - Recommended avoidance distance, if applicable
- An image of all side scan sonar contacts identified during the survey. These images may be included as part of the side scan sonar table or attached separately if properly keyed to the table. The images should be large enough to illustrate the target and include a scale. Interpretive highlighting or annotation of the side scan sonar data should be provided on a separate image. Small thumbnail images or images that are obscured by the target selection icon from the processing software may not be acceptable for BOEM archaeologists to review.
 - Analysis and interpretation of side scan sonar mosaics.
 - A discussion of any correlation between magnetic anomalies or side scan sonar contacts and known or probable sources.
 - A discussion of any magnetic anomalies, side scan sonar contacts, or other targets of interest identified in the remote sensing data of unknown source, in terms of their potential as cultural resources. This should include a description of the criteria used to determine targets as potential cultural resources and correlation of these targets to any reported shipwrecks or other sites in the area.
 - For potential archaeological resources identified from remote-sensing data, an analysis of National Register eligibility and recommendations for any further research or special precautions that may be necessary. If avoidance buffers are recommended, a justification and rationale for the avoidance distance presented should be provided.
 - A discussion of the data and results from any additional investigations that BOEM may have directed the applicant to conduct.

Paleolandscape Reconstruction

A paleolandscape reconstruction that presents and illustrates the analysis and identification of areas of high potential for the presence of pre-contact archaeological sites should be included in the Report. The paleolandscape reconstruction should be based on an approach that synthesizes the sea-level history and terrestrial site patterning gathered in the Cultural and Environmental Context, above, with the acoustic remote sensing and direct sampling data gathered during the survey. This information should be developed into a model that delineates the archaeological potential of the formerly subaerial landscape within the survey area (after CEI 1977; Evans 2015; Faught 2014; TRC 2012; Westley et al., 2011).

The paleolandscape reconstruction should include analysis and interpretation of the sub-bottom profiler, or other acoustic remote sensing data, to determine whether archaeologically sensitive elements of the formerly subaerial landscape are buried beneath more recent seabed sediments. This analysis includes identification of geomorphic features of archaeological potential (e.g., lagoons, terraces, levees, paleochannels, etc.). This analysis should also include discussion of preservation potential based on consideration of the depth of erosion caused by the transgressive zone and the potential for intact archaeological horizons to be present beneath the ravinement surface. If no features are identified, or if it is interpreted that there is no potential for the preservation of potential sites based on the depth of erosion from subsequent sea level rise, this should be clearly demonstrated and illustrated through data samples.

The paleolandscape reconstruction also should include the analysis of cores or direct samples, if collected, to support the interpretation presented in the archaeological analysis. This should include illustration and interpretation of the samples and discussion of the results from any sediment analyses conducted. The location of cores or other direct samples should be clearly indicated on the Archaeological Resource Charts.

The paleolandscape reconstruction provided in the Report should include the following elements:

- Samples of sub-bottom profiler data for each type of landform of archaeological interest identified. Each data sample should be readable and should include horizontal and vertical scales, in addition to event markers, survey line number, or some other means to geographically locate the data samples within the survey area. The data samples should include both an unannotated sample and an interpreted sample with highlighting or annotation that clearly illustrates the relevant features to support the analysis presented in the paleolandscape reconstruction, see Figure 1.
- Features of archaeological potential depicted on the Archaeological Resource Charts. These should include illustration of the horizontal and vertical extent of the features (e.g., depth below seafloor of channel margins and thalwegs).
- If areas of high archaeological potential are identified, additional landscape modeling of the features should be conducted to further illustrate and delineate the extent of the landscape components. This should be accomplished by digitally tracing and geo-referencing land surface contours from the acoustic data to produce a land surface model of the feature. The results of this should be depicted in one or more map-based models such as contoured plan views or three-dimensional wire frames (see Figures 2 and 3).

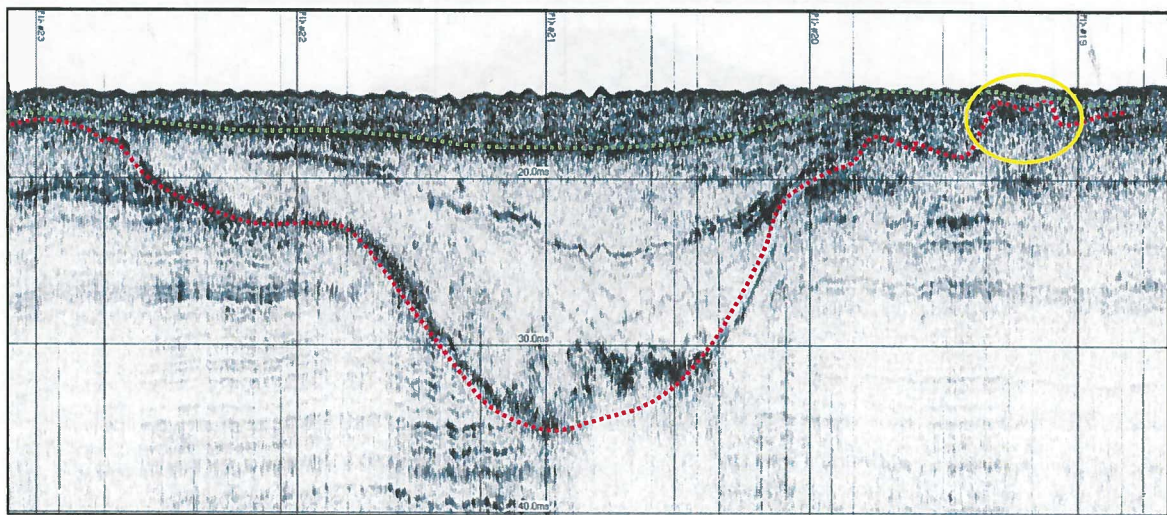


Figure 1: Example of Interpreted sub-Bottom Data Sample (from Evans 2015:70). A levee feature is circled in yellow, the channel horizon is indicated in red and the ravinement surface is illustrated in green. Vertical scale lines are in 150 m intervals; horizontal scale lines are in 7.5 m intervals.

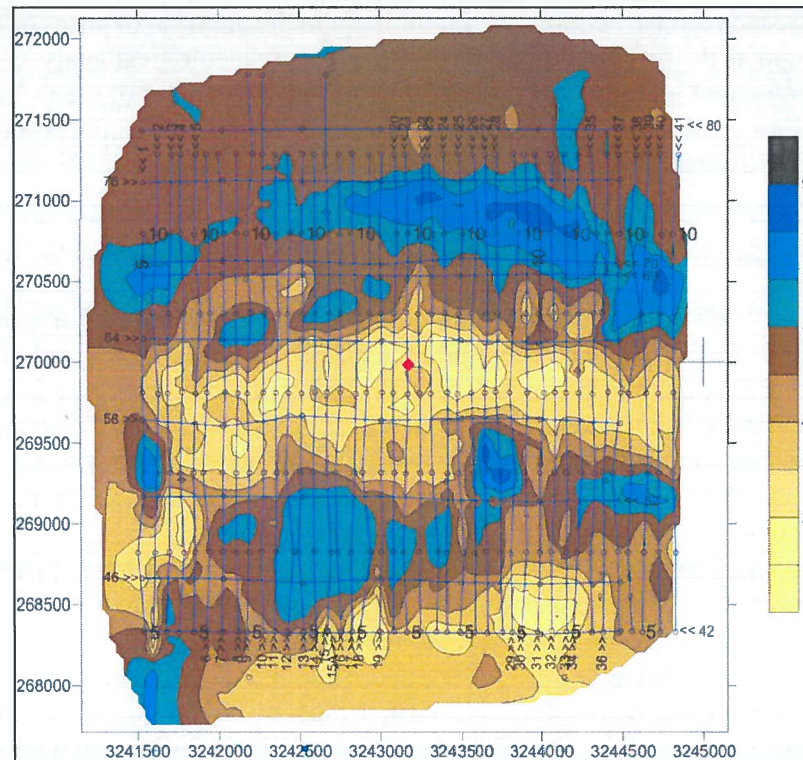


Figure 2: Example of an Archaeological Landscape Model (from Evans 2015:84). The feature of interest is indicated by the red diamond. Survey track lines are superimposed over the area. Depths are in meters below the seafloor; image is oriented north up.

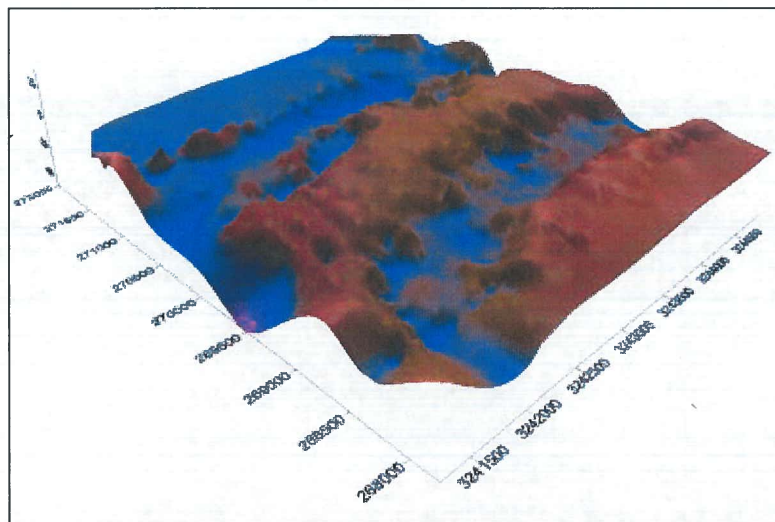


Figure 3: Example of a Three-Dimensional Wireframe Representation of an Interpreted Channel System. This system is also depicted in Figure 2, above (from Evans 2015:83).

Summary and Conclusions

This section of the Report includes conclusions and recommendations supported by the archaeological resource survey data and archaeological analyses. This includes a discussion of known or potential archaeological resources and recommendations for avoidance or for further archaeological investigations, citing the relevant language as found in the NHPA.

Back Matter

This section of the Report includes bibliographic references, appendices, and other information, as appropriate. Appendices should include a complete copy of the daily survey operations logs for the duration of the mobilization(s). Logs of vibracores or other direct samples, if collected, should also be included in the appendices.

Archaeological Resource Charts

An Archaeological Resource Chart, or Charts, should be included with the Report. Charts should be annotated with linear bar-scales (feet and meters), geographic and planar coordinates, lease boundaries, and lease blocks. Charts should be prepared at a standard scale (generally 1:12,000) and oriented to true north. The charts should illustrate all potential archaeological resources identified in relation to the proposed project activities. Please refer to the *Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information Pursuant to 30 CFR Part 585* for further information.

At a minimum, the Archaeological Resource Charts should illustrate the following information:

- Navigation post-plot of the surveyed area showing survey lines, line direction, and navigational shot points or event markers.
- The location of the proposed project activities in addition to illustration of areas of the seafloor that could be physically disturbed by any of the activities proposed (e.g., anchor placement, jack up barges, etc.).
- The location of geotechnical testing activities (e.g., soil borings, cone penetrometer tests, vibracores, etc.), if conducted.
- Existing infrastructure, if known.
- All magnetic anomalies and side scan sonar contacts illustrated on the same chart or series of charts. For magnetic anomalies use map symbol: ▲; for side scan sonar contacts use map symbol: ☒. Identify these magnetic anomalies and side scan sonar contacts using only the aforementioned symbols and a unique number keyed to the listings in the magnetic anomaly and side scan sonar tables in the Report. In congested areas with numerous unidentified magnetic anomalies or side scan sonar targets, you may use a map(s) at a scale of 1:6,000 to depict the anomalies. If this is done, tie this congested area map(s) into the 1:12,000 survey area map. Plot all recommended potential archaeological avoidance areas on the survey area map.
- Bathymetry contours at an appropriate interval depending on water depth and/or seafloor morphology.

- Sub-bottom features including the horizontal and vertical extent of the geomorphic features (e.g., depth below seafloor of channel margins and thalwegs).
- Magnetic contour maps including a key to the contour interval.
- Side scan sonar mosaics.

Digital Data

In addition to the geospatial information and digital data deliverables requested under the *Guidelines for Submission of Spatial Data for Atlantic Offshore Renewable Energy Development Site Characterization Surveys* and the *Guidelines for Providing Geophysical, Geotechnical, and Geohazard Information Pursuant to 30 CFR Part 585*, the following digital information should be submitted with the Report:

Navigation Data

The navigation post-plot of the surveyed area including survey lines, line numbers or other designations, navigational shot points or event markers, and other relevant attributes should be submitted in an ArcGIS readable format (e.g., Microsoft Excel (.xls), Comma separated value (.csv), Text file (.txt), Database (.dbf) or Shapefile (.shp)).

Proposed Project

The location of the proposed project elements including relevant attributes should be submitted in an ArcGIS readable format (e.g., Microsoft Excel (.xls), Comma separated value (.csv), Text file (.txt), Database (.dbf) or Shapefile (.shp)).

Magnetometer Data

The information used to create the table of magnetic anomalies and charting of magnetic anomalies should be submitted in an ArcGIS readable format (e.g., Microsoft Excel (.xls), Comma separated value (.csv), Text file (.txt), Database (.dbf) or Shapefile (.shp)). The following attributes should be included:

- Anomaly ID
- Lease block
- Survey line number
- Gamma intensity
- Duration (m)
- Characterization of the anomaly as a dipole, positive (+) or negative (-) monopole, or complex signature
- Towfish height above the seafloor
- North American Datum 1983 (NAD 83) coordinates of the center of each unidentified anomaly in decimal degrees to 5 decimal places
- Association with side scan sonar contacts
- Recommended avoidance distance, if applicable

Applicants should submit the complete, unprocessed magnetometer dataset for a survey in a tabular data format recognized by ArcGIS (i.e., Comma separated value (.csv), Text file (.txt), Database (.dbf) or Shapefile (.shp)). At a minimum, the following items should be included within the data table:

- Easting/Longitude
- Northing/Latitude
- Raw Magnetic Readings
- Towfish Altitude
- Survey Line Number/Name

Each of these components must occupy a single field within the table. For example, easting or longitude data must be within a single column in the data table. This would include a column for an easting amount, or longitude in decimal degrees, not a table with separate columns for degrees and another for decimal minutes.

Side Scan Sonar Data

The information used to create the table of side scan sonar contacts and charting of sonar contacts should be submitted in an ArcGIS readable format (e.g., Microsoft Excel (.xls), Comma separated value (.csv), Text file (.txt), Database (.dbf) or Shapefile (.shp)). The following attributes should be included:

- Side scan sonar contact ID
- Lease block
- Survey line number
- Target length (m)
- Target width (m)
- Target height (m)
- Target shadow (m)
- Target description
- Associated magnetic anomalies
- NAD 83 coordinates of the target in decimal degrees to 5 decimal places
- Original source file name
- Recommended avoidance distance, if applicable

Applicants should provide both raw and processed eXtended Triton Format (.xtf) line files for the survey.

Side scan sonar mosaics of the survey area should be prepared as a geo-referenced Tagged Image Format (.tif) and output as 0.5 m resolution or better.

Sub-bottom Profiler Data

The data used to create the charts illustrating the horizontal and vertical extent of sub-bottom geomorphic features should be submitted in an ArcGIS readable format.

Applicants should provide sub-bottom profiler data recorded in SEG-Y standard exchange format. Digital information for the reflectors/horizons identified in the data also should be provided. Formatting may include image plots showing the identified horizons, XYZ data files, or CSF files compatible with SonarWiz software, or other formats approved by BOEM.

Bathymetry Data

The applicant should provide bathymetric data in the following formats with appropriate metadata detailing processing parameters, illumination angles and coordinate systems:

- XYZ data
- ARC ASCII Grid and layer files
- Contours (ESRI compatible)
- Geo-referenced image files

Geotechnical Data

The location of geotechnical testing activities (e.g., soil borings, cone penetrometer tests, vibracores, etc.) should be submitted in an ArcGIS readable format (e.g., Microsoft Excel (.xls), Comma separated value (.csv), Text file (.txt), Database (.dbf) or Shapefile (.shp)) including relevant attributes.

Contact Information

For further information or inquiries regarding these guidelines please contact the Office of Renewable Energy Programs at (703) 787-1300 or renewable_reporting@boem.gov. Additional resources, including links to BOEM-funded archaeological and historic preservation studies, are available online at www.boem.gov/Renewable-Energy/Historic-Preservation-Activities/.

References

- Coastal Environments, Inc. (CEI) 1977. Cultural Resources Evaluation of the Northern Gulf of Mexico Continental Shelf. Prepared for Interagency Archaeological Services Office of Archaeology and Historical Preservation, National Park Service, U. S. Department of the Interior, Baton Rouge, LA.
- Evans, A.M., 2015. Examining and Testing Potential Prehistoric Archaeological Features on the Gulf of Mexico Outer Continental Shelf. U.S. Department of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, New Orleans, LA. CMI Study 2015. 366p.
- Faught, Michael K., 2014. Remote Sensing, Target Identification and Testing for Submerged Prehistoric Sites in Florida: Process and Protocol in Underwater CRM Projects. In *Prehistoric Archaeology on the Continental Shelf*, Amanda M. Evans, Joseph C. Flatman and Nicholas C. Flemming, editors, Springer, New York.
- National Register of Historic Places, 2002. How to Apply the National Register Criteria for Evaluation, National Register Bulletin No. 15. U.S. Department of the Interior,

National Park Service. <http://www.nps.gov/nr/publications/bulletins/nrb15/>
(Accessed September 10, 2014).

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.

Westley, Kieran, Trevor Bell, Ruth Plets and Rory Quinn, 2011. Investigating Submerged Archaeological Landscapes: a Research Strategy Illustrated with Case Studies from Ireland and Newfoundland, Canada. In *Submerged Prehistory*, Jonathan Benjamin, Clive Bonsall, Catriona Pickard, and Anders Fischer, editors, pp. 129–144. Oxbow Books, Oxford.



In reply refer to:
2010-CUY-10925

November 6, 2017

Mr. Roak Parker, NEPA Specialist
US Department of Energy – Energy Efficiency and Renewable Energy
15013 Denver West Parkway
Golden, CO 80401
Roak.Parker@ee.doe.gov

Re: Icebreaker Wind Farm Project, Cleveland, Cuyahoga County, Ohio

Dear Mr. Parker:

This letter is in response to the October 20, 2017, receipt of a letter by Ms. Beth A. Nagusky of Icebreaker Windpower, Inc., (Icebreaker) dated October 19, 2017. The comments of the Ohio State Historic Preservation Office are made pursuant to Section 149.53 of the Ohio Revised Code and the Ohio Power Siting Board rules for siting this project (OAC 4906-4). The comments of the Ohio State Historic Preservation Office are also made in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended, and the associated regulations at 36 CFR Part 800.

The submittal is a response by Icebreaker to a letter from this office dated October 3, 2017. Our letter of October 3, 2017, was a response to a letter from Icebreaker dated August 23, 2017, which was itself a response to a letter from our office dated July 28, 2017, concerning the submittal of the *Section 106 Geophysical Survey Review for Icebreaker Wind, Appendix A: Icebreaker Offshore Wind Demonstration Project 2016 Marine Geophysical Survey Results*, and *Visual Impact Assessment* received by our office on May 19, 2017 as well the *Cultural Resources Effects Analysis* received by our office on June 30, 2017. Our comments below thus still relate to the *Section 106 Geophysical Survey Review for Icebreaker Wind and Appendix A: Icebreaker Offshore Wind Demonstration Project 2016 Marine Geophysical Survey Results* submitted in May 2017.

Ms. Nagusky of Icebreaker addressed the comments in our letter of October 3, 2017, which included our outstanding requests from our review of the archaeological reports submitted in May. We appreciate Icebreaker's interest in working with our office to determine what changes to the report are necessary in order to provide us adequate information. We look forward to receiving sufficient data to complete our review of the underwater geophysical archaeological survey, analysis, and interpretation for the Icebreaker project.

The Icebreaker letter discusses three separate concerns, in our view, regarding our requested report revisions. First, the letter correctly notes that this office initially directed the

archaeological consultant, Mr. David VanZandt, in July 2015 to utilize the guidelines provided in the Bureau of Ocean Energy Management's (BOEM's) Notice-to-Lessees (NTL) No. 2005-G07 and only later, in August of 2016, directed Mr. VanZandt to use the guidelines provided by BOEM's Office of Renewable Energy Programs' (OREP's) July 2015 *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585*. The Icebreaker project has been under intermittent review by this office since at least 2010; it is to be expected that guidelines and requirements will change over the course of such a lengthy project. However, the NTL No. 2005-G07 guidelines and OREP's July 2015 guidelines differ only minimally in regards to the information that should be presented in archaeological reports and mapping. This office would find it acceptable if the report and appendix initially submitted in May are revised to adhere to the guidelines outlined in NTL No. 2005-G07 rather than those outlined in OREP's July 2015. Since the differences are so slight, use of either set of guidelines would be satisfactory.

Second, we agree that the format used by Mr. VanZandt in the July 2015 report was accepted by this office and note that his report, including all appendices, closely follows the guidelines outlined in NTL No. 2005-G07. The July 2015 report described Mr. VanZandt's analysis and interpretation of data he collected as well as data previously collected by Alpine Ocean Seismic Survey, Inc. (Alpine). The Alpine report completed in December 2010 was included as Appendix A of the July 2015 report and closely follows the guidelines outlined in NTL No. 2005-G07. It is important to note that the July 2015 report detailed analysis and interpretation of significantly less data from a smaller area using fewer geophysical survey devices than the May 2017 report and is accordingly more concise. In short, the previously submitted report was formatted properly and contained sufficient information for this office to complete its review. The report submitted in May 2017, specifically *Appendix A: Icebreaker Offshore Wind Demonstration Project 2016 Marine Geophysical Survey Results*, does *not* follow the guidelines outlined in NTL No. 2005-G07 or OREP's July 2015 guidelines. The additional information and changes we have requested for the May 2017 report were not requested for the July 2015 report because no such additional information or changes were necessary. All necessary information was provided in July 2015 and reasonable formatting was used. For example, the July 2015 report, including its Appendix A (the December 2010 Alpine report), included side-scan sonar images of all contacts, provided side-scan sonar images that did not have any overlays or annotation, used only one symbol for all side-scan sonar contacts on maps, labeled all side-scan sonar contacts on maps, and included survey line numbers in the side-scan sonar contact tables.

Third, in her letter of October 19, 2017, Ms. Nagusky indicates several times that Icebreaker believes adequate data was provided for this office to complete its review, this office is only concerned that the formatting of the report is incorrect, and considers much of the information requested by this office to be "minutiae." This office objects to this characterization of our requests. We have requested changes and additional information so that this office can review a full and complete data set for the project. To illustrate, this office has *not* been provided with images of *all* side-scan sonar contacts and has *not* been provided with maps showing the labeled locations of all side-scan sonar contacts. As stated in our letter of July 28, 2017, approximately 115 side-scan sonar contacts, or about 25% of the 455 identified side-scan sonar contacts, are not

Mr. Roak Parker
November 6, 2017
Page 3

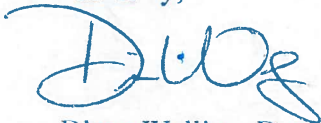
pictured in the report and are not labeled on maps. In addition, the contact selection icon overlays shown on the approximately 340 side-scan sonar images included in the report obscure the side-scan sonar contacts shown in the images. Providing images of *all* side-scan sonar contacts *without* overlays will allow this office to review all of the side-scan sonar contacts without any obscuring details.

Please note that this office has not received the large plotted maps or digital geophysical data requested in our two previous letters. As offered by Ms. Nagusky in the letter of October 19, 2017, these items should be submitted to this office with the revised report.

We look forward to receipt of the revised report. If you have any questions, please contact me at dwellling@ohiohistory.org or Kendra Kennedy at kkennedy@ohiohistory.org or at (614) 298-2000.

Thank you for your cooperation.

Sincerely,



Diana Welling, Deputy State Historic Preservation Officer and
Department Head for Resource Protection and Review
State Historic Preservation Office

Serial No. 1070927

OHIO HISTORY CONNECTION

800 E. 17th Ave., Columbus, OH 43211-2474 • 614.297.2300 • ohiohistory.org



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

January 11, 2017~~8~~

Kendra Kennedy
Project Reviews Manager
State Historic Preservation Office
Ohio History Connection
800 E. 17th Ave
Columbus, Ohio 43211

SUBJECT: *(Ohio State Historic Preservation Office project number 2010-CUY-10925)*
Continuation of Section 106 Consultation for LEEDCo Project Icebreaker

Enclosed please find the updated Geophysical Survey information and maps, as requested in your letters of October 3, 2017 and November 6, 2017. Specifically included is a new three volume appendix to the previously submitted geophysical survey review, as well as a data CD. Volume 1 and 2 are spiral bound books. Volume 3 is a 3 ring binder that contains nineteen (19) enclosures printed in large format.

I appreciate your patience while this information was being produced.

If you have any questions or require any additional information, please contact me at (720)356-1645 or roak.parker@ee.doe.gov.

Sincerely,

A handwritten signature in black ink, appearing to be "Roak Parker", is written over a light blue horizontal line.

Roak Parker
Environmental Protection Specialist



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

January 18, 2018

Mr. Reid Nelson
Director, Office of Federal Agency Programs
Advisory Council on Historic Preservation
410 F Street NW, Suite 308
Washington DC, 20001-2637

SUBJECT: Request to Review Disagreement with Finding Pursuant to 36 CFR 800.5 (c)(2)(i)

Dear Mr. Nelson:

The U.S. Department of Energy (DOE) is proposing to provide funding to Lake Erie Energy Development Corporation (LEEDCo) to support the design and deployment of an offshore wind demonstration project called Project Icebreaker. Project Icebreaker would consist of 6 wind turbines in Lake Erie approximately 7 miles off Cleveland, Ohio.

DOE made an initial finding under 36 CFR 800.5(b) that the proposed project would have no adverse effect on historic properties. The Ohio State Historic Preservation Office (OHPO) disagreed with the DOE finding with respect to potential visual impacts to four historic properties. As such, DOE requests, under 36 CFR 800.5 (c)(2)(i), that the Council review the finding pursuant to paragraphs (c)(3)(i) and (c)(3)(ii).

Background

On June 29, 2017, DOE initiated consultation under Section 106 of the National Historic Preservation Act (NHPA) with the OHPO. DOE made an initial determination that no historic properties would be adversely affected by the proposed action of funding the proposed project. By letter, dated July 28, 2017, OHPO requested additional information regarding geophysical and geotechnical reports, and disagreed with DOE's finding on no adverse effect in regards to the potential visual impact to four historic properties:

- The Universal Company Dock and Warehouse (NRHP# 83001954)
- USS COD Submarine (NRHP# 86000088 and a National Historic Landmark)
- U.S. Coast Guard Cleveland Harbor Station (NRHP# 76001390)
- Cleveland East and West Pierhead Lights (NRHP#91001855 and 83001950).

DOE now seeks Advisory Council on Historic Preservation review of the disagreement.

Project Description

A detailed project description is included within each report submitted with this request.

Undertaking

DOE has determined that providing funding to support the development of the Proposed Project constitutes an undertaking subject to Section 106 of the NHPA.

Area of Potential Effect

Consideration has been given to the potential for a range of effects that might result from the Proposed Project, including visual effects.

DOE has defined the area of potential effect (APE) to include the turbine area (approximately 2.9 miles x 0.2 miles); the cable area (approximately 8.2 miles x 0.2 miles); the inner harbor area (approximately .53 miles x 0.22 miles); plus an area within a ten mile radius of the proposed turbine site for potential visual impacts.

A detailed description of the APE is included within each report submitted with this request.

Tribal Consultation

On September 2, 2016, USACE, DOE and USCG sent jointly signed letters to 25 tribes describing the Proposed Project and offering to engage in consultation and/or government to government consultation. In the two weeks after sending the letters DOE followed up with a phone call to each tribe, again inviting all tribes to engage in consultation. Three tribes requested follow-up contact with DOE. After following up with each of the three Tribes, DOE has not received any additional responses or requests. On August 21, 2017, DOE sent Notice of Availability Letters to all tribes informing the tribes that a draft Environmental Assessment (EA) was available for review, and that DOE was seeking input on the draft EA by October 10, 2017. No tribe provided additional input. DOE will continue to reach out to the Tribes during the remainder of the NEPA process.

Assessment of Effect to Four Historic Properties

As stated above, DOE made an initial determination of no adverse effect, with which OHPO disagreed. OHPO stated that the potential visual impact would adversely affect the property under 36 CFR 800.5(a)(2)(v) – introduction of visual elements that diminish the properties significant historic features. Based on that determination DOE conducted (through contractor Environmental Design & Research (EDR)) an additional review of the four properties in question (see EDR memo of August 21, 2017). Based, in part, on the supporting information in the EDR memo, DOE again determined that the occasional visual presence of the proposed project, which would be between 7.6 to 8.9 miles from the historic properties, would not “diminish the integrity of the property’s significant historic features.”

DOE shared the EDR memo with OHPO and followed up with OHPO to determine if OHPO’s determination had changed regarding any of the four properties. OHPO did not change their determination and requested that DOE begin the process of identifying and contacting consulting parties.

DOE identified and reached out to six consulting parties (five of whom are owners of the historic properties in question), provided them with documentation specified in 36 CFR 800.11(e), and sought their input regarding potential affects to, and appropriate mitigation regarding, the four historic properties. Those six consulting parties were:

- Landmark Management Companies, the current owner of The Universal Company Dock and Warehouse
- USS COD submarine Memorial/COD Inc., the non-profit owner of the USS COD
- Gary Zaremba, registered owner of the East Pierhead Lighthouse
- The US Coast Guard, owner of the West Pierhead Lighthouse, owner of the “light” in the East Pierhead Lighthouse, and previous owner of the East Pierhead Lighthouse, and previous owner of the U.S. Coast Guard Cleveland Harbor Station
- The City of Cleveland (Landmarks), current owner of the U.S. Coast Guard Cleveland Harbor Station
- The Cleveland Foundation, a non-profit that funded research for potential uses of the U.S. Coast Guard Cleveland Harbor Station

DOE received responses from Landmark Management Companies, COD Inc., The US Coast Guard, and the Cleveland Foundation. All consulting parties who responded determined that the proposed project would not have an adverse effect to the historic property’s significant historic features.

In the fall of 2017, DOE sent four mailings to Gary Zaremba at his registered addresses in Ohio and New York, however Mr. Zaremba failed to respond. DOE does not have a phone number or email address for Mr. Zaremba. In the fall of 2017, DOE sent information to the City of Cleveland, had conversations with John Hoose and Donald Petit from the city and provided additional information per their requests. The city has not provided any input.

DOE also presented its determination with supporting information to the public through a draft Environmental Assessment (EA) (*see*, www.energy.gov/node/2714709). DOE invited public comment on the draft EA. The comment period ran from August 18, 2017 until October 10, 2017. In addition, on September 6, 2017 DOE held a public meeting in Lakewood, Ohio to present information from the draft EA and accept comments from the public. In total, DOE received approximately 100 comments from the public, however no comments were received on the issue of potential impacts to historic properties.

Conclusion

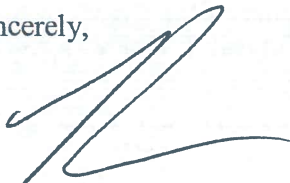
DOE acknowledges that the proposed turbines would be visible under clear sky conditions and strong sunshine. Visibility, however, would be substantially reduced under cloudy and partly cloudy conditions, which occurs on 82% of the days during a typical year in Cleveland (*see*, Cultural Resources Effects Analysis, pages 24-25). While DOE acknowledges that the proposed project could be visible from all four historic properties, DOE maintains its determination that, based on the nature of the historic properties involved and the nature of those properties significant historic features, the distance of the proposed project from the historic sites, the small size of the proposed project on the horizon, and input from consulting parties (none of whom have determined that the proposed project would have an adverse impact on the historic properties), the proposed project would not adversely affect the historic properties and, more specifically, would not diminish the integrity of the property’s significant historic features. Because OHPO disagrees

with this determination, DOE requests, under 800.5 (c)(2)(i), that the Council review the finding pursuant to paragraphs (c)(3)(i) and (c)(3)(ii).

Through separate letter, DOE is concurrently notifying the six consulting parties of this submission.

Enclosed is information required under 800.11(e). Please let me know if you would like any additional information or have any questions.

Sincerely,



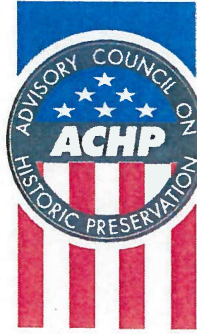
Roak Parker
U.S. Department of Energy
Environmental Protection Specialist
15013 Denver West Parkway
Golden, CO 80401
240.562.1645
Roak.Parker@ee.doe.gov

CC:

Diana Welling – OHPO (without first 7 enclosures)

Enclosures:

1. Visual Impact Assessment
2. Cultural Resources Effects Analysis
3. DOE Letter to OHPO of June 29, 2017
4. OHPO determination of July 28, 2017
5. EDR Memo of August 21, 2017
6. Sample Tribal letter of September 2, 2016
7. Sample Tribal letter of August 21, 2017
8. Email communication from Landmark Management Companies
9. Email communication from Cod Inc.
10. Letter from US Coast Guard
11. Letter from Cleveland Foundation



Preserving America's Heritage

February 6, 2018

Mr. Roak Parker
Environmental Protection Specialist
U.S. Department of Energy
Golden Field Office
15013 Denver West Parkway
Golden, CO 80401

Ref: *Disputed Effect Finding for Project Icebreaker*
Lake Erie, Ohio

Dear Mr. Parker:

On January 23, 2018, the Advisory Council on Historic Preservation (ACHP) received correspondence regarding the referenced undertaking from the U.S. Department of Energy (DOE). As we understand, the DOE has requested the ACHP's comments in accordance with 36 CFR Section 800.5(c)(2) to resolve a dispute between DOE and the Ohio State Historic Preservation Officer (SHPO) regarding the effects of the undertaking on historic properties.

In 36 CFR Section 800.5(c)(3), the ACHP may request an additional 15 days to review the dispute, so long as the request is made prior to the end of the initial 15-day review period. The ACHP is requesting this extension to ensure our advisory comments to the DOE are relevant and provide appropriate guidance regarding the applicability of the criteria of adverse effect.

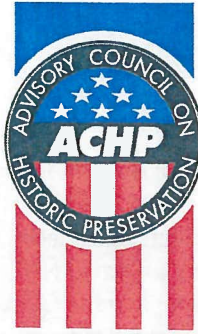
Our comments regarding this dispute will be sent to the DOE by February 22, 2018. In the meantime, if you have any questions, please contact Ms. Jaime Loichinger at (202) 517-0219 or via email at jloichinger@achp.gov.

Sincerely,

Charlene Dwin Vaughn, AICP
Assistant Director
Office of Federal Agency Programs
Federal Permitting, Licensing and Assistance Section

ADVISORY COUNCIL ON HISTORIC PRESERVATION

401 F Street NW, Suite 308 • Washington, DC 20001-2637
Phone: 202-517-0200 • Fax: 202-517-6381 • achp@achp.gov • www.achp.gov



Preserving America's Heritage

February 14, 2018

Mr. Roak Parker
Environmental Protection Specialist
U.S. Department of Energy
Golden Field Office
15013 Denver West Parkway
Golden, CO 80401

Ref: *Disputed Effect Finding for Project Icebreaker
Lake Erie, Ohio*

Dear Mr. Parker:

On January 23, 2018, the U.S. Department of Energy (DOE) informed the Advisory Council on Historic Preservation (ACHP) of a disputed effect finding with the Ohio State Historic Preservation Officer (SHPO) for DOE's proposal to fund the Lake Erie Energy Development Corporation's (applicant's) construction of six (6) wind turbines located in Lake Erie, approximately 7 miles offshore of Cleveland, Ohio. Since DOE has determined that its effect finding is appropriate, it has requested the ACHP to provide its advisory comments regarding this dispute in accordance with Section 106 of the National Historic Preservation Act (NHPA; 54 U.S.C. 306108) and 36 CFR Part 800.5(c)(2)(i) of our regulations, "Protection of Historic Properties."

As we understand, DOE proposes to provide funding to the applicant to conduct identification and evaluation efforts in the undertaking's area of potential effects (APE) in consultation with a variety of consulting parties, including affected property owners. Four historic properties were identified within the undertaking's APE, one of which is a National Historic Landmark (NHL). To assess whether the undertaking's effects would be adverse, DOE developed photo simulations of the wind turbines. In addition, DOE reviewed the National Register of Historic Places (National Register) nomination forms for each property to better understand the properties' historic significance and elements of integrity. As a result of these efforts, DOE determined that a finding of "no adverse effect" would be appropriate based on two factors: (1) the location of the undertaking, a distance off-shore, limits the opportunity to introduce visual impacts; and (2) the inability for the proposed turbines to diminish the properties' integrity that qualifies them for inclusion in the National Register.

The Ohio SHPO has objected to that finding, and has concluded that the undertaking will substantially change the setting, feeling and association of the affected historic properties. Further, there is concern that the undertaking could lead to the construction of many more turbines resulting in cumulative adverse effects to these historic properties.

ADVISORY COUNCIL ON HISTORIC PRESERVATION

401 F Street NW, Suite 308 • Washington, DC 20001-2637
Phone: 202-517-0200 • Fax: 202-517-6381 • achp@achp.gov • www.achp.gov

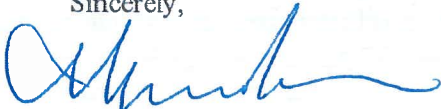
We, therefore, offer the following comments to DOE to assist in resolving this dispute:

- Section 800.10(c) of our regulations directs agencies to consult with the Secretary of the Interior for any undertaking that could adversely affect an NHL. Accordingly, when DOE identified the NHL within the Area of Potential Effects, it was required to initiate consultation with the National Park Services' National Historic Landmarks Program, which represents the Secretary on such matters. While consultation with the property owner is also important, the NHL program possesses substantial expertise on assessing effects to NHLs and is therefore a regulatory requirement that should not be overlooked.
- Section 800.5(a)(1) of our regulations requires agencies to consider not just direct or indirect effects, but also those effects that are reasonably foreseeable and cumulative in nature. DOE should clarify how the construction of these wind turbines may lead to additional future development, which could be considered reasonably foreseeable and result in a cumulative effect to the identified historic properties.
- While the consulting parties and the public were provided an opportunity to comment under the public notification provisions of the National Environmental Policy Act (NEPA), it is unclear if the broader public understood that Section 106 also applied to the undertaking. The regulations recognize that agencies can use existing procedures to meet the public participation requirement, but the public should be clear that it could comment under both laws.
- DOE should also clarify how it afforded the public an opportunity to comment on its "no adverse effect" finding during the 30-day review period provided in 36 CFR Section 800.5(c).

We look forward to receiving DOE's response to our comments in accordance with 36 CFR Section 800.5(c)(3)(ii)(A-B). Once DOE has addressed the above issues, it also should reconsider whether its effect finding of "no adverse effect" is appropriate for this undertaking.

Should you have any questions regarding our comments, please contact Ms. Jaime Loichinger at (202) 517-0219 or via email at jloichinger@achp.gov.

Sincerely,



Reid J. Nelson
Director
Office of Federal Agency Programs



United States Department of the Interior

National Park Service
Midwest Region
601 Riverfront Drive
Omaha Nebraska 68102-4226

March 6, 2018

1.A.2 H34(MWR-CR/NHRP)

Ms. Roak Parker
Environmental Protection Specialist
U.S. Department of Energy
Golden Field Office
15013 Denver West Parkway
Golden, CO 80401

Dear Mr. Parker:

This letter is in response to your e-mail message dated February 22 of this year, subject heading: "Consultation Regarding USS Cod." In that message, you wrote that the U.S. Department of Energy (DOE) is requesting that the Secretary of the Department of the Interior, through the National Park Service (NPS) National Historic Landmarks (NHL) Program, participate in consultation regarding the development of an offshore wind demonstration project ("Icebreaker Offshore Wind Farm Proposed Project"). NPS accepts the invitation to consult and requests being involved in additional consultation, as necessary.

NPS appreciates the opportunity to review the information provided regarding the Proposed Project. Our comments are made pursuant with the provisions of Section 106 and 110(f) of the National Historic Preservation Act, as amended, and the associated regulations at 36 CFR Part 800, in particular section 800.10.

As part of DOE's responsibility to identify historic properties located within the Area of Potential Effect (APE), as well as completion of a viewshed analysis, it was determined that four historic properties, one of which is the USS Cod, a NHL, would have uninterrupted views of the Proposed Project. However, due to the location (just over 8 miles from the USS Cod) and the number ("up to six") of the proposed wind turbines, DOE determined that the installation of the turbines "would not diminish the integrity of the property's significant historic features" and no historic properties would be adversely affected by the Proposed Project.

NPS provides its comments only as the Proposed Project impacts the USS Cod. It does not include the project's effect on other historic properties identified. Also, this determination of the wind turbine's potential effect on the USS Cod is based strictly on the project as it is currently proposed and described. As such, we agree with DOE that this project, as it is currently presented with the information provided, would not directly or indirectly alter any of the characteristics that qualified the USS Cod for designation as a NHL.

The National Register of Historic Places Nomination Form (1986) that evaluated the Cod's significance and historic integrity focused entirely on the Cod's important role it played in the Pacific Theater during World War II and its excellent integrity specific to its period of significance (1943-1945). The nomination's identification of "significant historic features" was restricted to its structural components, exterior hull, interior spaces and equipment, armaments, etc. Setting was not identified as an aspect of integrity qualifying the Cod for designation at that time.

More to the point, the physical environment in which the Cod played its historical role was the Pacific Ocean, not the Lake Erie coastline. In essence, it has moved from the place where it played its historical role. As a maritime vessel, it is fortuitous that the Cod is moored along the Lake Erie lakefront in Cleveland's North Coast Harbor, rather than dry-docked or situated inside a museum or warehouse. Having (and retaining) a relatively unimpeded broad lake view beyond the Cod most certainly assists with the comprehension and appreciation of the Cod's national significance and how its story is interpreted. However, since the discussion of historic significance and integrity in the nomination strictly focused on the Cod's role during WWII in the Pacific Ocean and a description of its essential physical features, its current location and setting was not considered as a qualifying characteristic when it was designated in 1986.

As frequently occurs with older NHL nominations, it is not unreasonable to consider the possibility of an updated evaluation and documentation of the Cod's potential for additional significance, and a re-evaluation of its aspects of historic integrity. For instance, its association with Cleveland regarding construction of many of its components and engines could be further assessed, as well as its mooring location that continues a long tradition of the Navy's submarine training program, dating to 1936. These factors may prove to be worthy of consideration at some future date.

If the proposed installation of six turbines at the described distance establishes a precedent for a future intent or plan to construct additional turbines, perhaps at a closer distance and/or in much greater numbers, we would need to reassess the potential for adverse effects at that time.

Please keep me apprised of any additional information or changes to the project that may affect my assessment of the project.

Respectfully,



Geoffrey Burt
NPS, National Historic Landmarks Program



In reply refer to:
2010-CUY-10925

March 9, 2018

Roak Parker, Environmental Protection Specialist
US Department of Energy
15013 Denver West Parkway
Golden, CO 80401

RE: Section 106 Review, Icebreaker Offshore Wind Farm Project, Lake Erie, Cleveland,
Cuyahoga County, Ohio

Dear Mr. Parker:

This letter is in response to the revised *Appendix A: Icebreaker Offshore Wind Demonstration Project 2016 Marine Geophysical Survey Results*, received January 17, 2018, and project correspondence received between January 11 and February 14, 2018, regarding the proposed Icebreaker Offshore Wind Farm Project in Lake Erie north of Cleveland in Cuyahoga County, Ohio. The comments of the State Historic Preservation Office are made in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended, and the associated regulations at 36 CFR Part 800.

Consultation and the Public

In the letter regarding this project sent by the Department of Energy (DOE) to the Advisory Council on Historic Preservation (ACHP), received by this office on January 22, 2018, DOE outlines information on tribal consultation, consulting parties, and public outreach for the project. We are requesting some additional information about these three topics from DOE. First, please provide a list of the 25 tribes that were contacted by DOE on September 2, 2016, and an example of the letter and information packet that was sent to each tribe. Please also specify which three tribes responded with requests for additional information. Did these three tribes request consulting party status? Were copies of this office's letter of July 28, 2017, and the ACHP's letter of February 14, 2018, provided to these three tribes? As before, we encourage you to continue in your efforts to reach out to tribes. Historically, tribes have had significant interest in projects involving waterways.

Second, please provide an example of the letter and information packet that was sent to each of the six consulting parties outlined in DOE's letter to the ACHP. Third, DOE notes that "no comments were received on the issue of potential impacts to historic properties" during the September 6, 2017, public meeting in Lakewood, Ohio. However, it is not clear if DOE provided information about the undertaking's effects to historic properties during the meeting and specifically sought comments and input on such effects. Please clarify whether and how DOE provided information on historic properties during the public meeting or how DOE has

specifically sought comments and input about the undertaking's effects on historic properties from the public.

Geophysical Survey and Identification of Historic Properties

In regards to the revised *Appendix A: Icebreaker Offshore Wind Demonstration Project 2016 Marine Geophysical Survey Results* (Appendix A), this office continues to have concerns about requested geophysical survey information that has not yet been provided. These concerns are based on provision of adequate information for review of the findings, especially in comparison with the Bureau of Ocean Energy Management's Office of Renewable Energy Programs July 2015 *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585* (OREP Guidelines), which are the guidelines recommended for use in completing the survey and providing information to this office in our letter of August 5, 2016.

The revised Appendix A received by this office on January 17, 2018, does provide much of the additional information requested by this office. This includes images of all of the side-scan sonar contacts free of annotation and obscuring details, a side-scan sonar contact table that includes the survey line number and shadow height, a magnetic anomalies table that includes the survey line number and height of the magnetometer above the lake bed, information in the report on regular and tie line spacing, and large printed maps that are easy to read. As requested, the maps use only *one* symbol for all side-scan sonar contacts, label *all* side-scan sonar contacts, and label the survey track lines with both survey track line number and direction. We appreciate the provision of this requested information. However, some important requested information has not yet been provided and the requested information that was provided has highlighted a few new areas of concern.

Digital Data

The most important piece of missing requested information is the digital geophysical survey data. While a disc was included with the project submission, the disc only contains digital copies of the three volumes of the revised Appendix A. *None* of the requested digital geophysical survey data was included in the submission. We initially requested this digital data in our letter of July 28, 2017, and subsequently restated this request in our letters of October 3 and November 6, 2017. We *once again* request the digital geophysical survey data as outlined in the *Digital Data* section of the OREP Guidelines. Prior to submitting this information, the survey company and applicant should carefully review the OREP Guidelines and the data to verify that the digital data being provided meet these guidelines.

Mapping

While the large maps provided in the most recent submission address a number of concerns highlighted by this office, the maps still fail to meet the minimum specifications of the OREP Guidelines. Missing data layers include, *but are not limited to*, side-scan sonar mosaics, sub-bottom features, and geotechnical testing locations. These layers are included on the original maps, but were not included on the revised maps provided in the revised report (Enclosures 10-19). Prior to submitting the revised maps, the survey company and applicant should carefully review the OREP Guidelines and the maps to verify that the maps being provided meet these guidelines.

Identification of Historic Properties

Following receipt of additional information, including images of all of the side-scan sonar contacts without annotation and maps that show and label all side-scan sonar contacts, this office was finally able to review the survey data with regards to identification of historic properties. One group of anomalies near the export cable route between kilometer posts 7 and 8 present characteristics that are suggestive of cultural, rather than natural, origins. These anomalies include C99, C102, and M155, in particular, as well as C104, C105, C106, and C107 due to their close proximity. Additional geophysical data collected during the survey, such as multibeam bathymetry and sub-bottom profiler data, may provide more information about the nature of this cluster of anomalies.

Geophysical Survey Design

The most significant area of concern identified upon review of the revised report involves adequate survey parameters for identification of historic properties, particularly line spacing. In our letter of July 28, 2017, we stated, "In general, it appears that the geophysical survey was conducted consistent with [OREP] guidelines." Following our request for and the applicant's submission of additional information, it has become clear that the geophysical survey was *not* conducted consistent with the OREP Guidelines. The original report did not provide adequate information on line spacing, which is an important aspect of survey design as it relates to identification of submerged archaeological sites. According to the revised report (pp. 32), regular line spacing for the in-harbor, export cable route, and inner array cable route survey areas was 35 meters. OREP Guidelines specify a *minimum* of 30-meter line spacing for archaeological identification surveys. In short, the geophysical survey was not appropriately designed to facilitate the identification of archaeological sites and historic properties in the project area. This is particularly unexpected since the applicant's Request for Proposals for geophysical survey and geotechnical exploration for the project, which was received by this office on July 14, 2016, specifies use of 30-meter line spacing for the cable route and in-harbor survey areas.

Recommendations

Considering our identification of an intriguing cluster of anomalies along the export cable route combined with the revelation that the geophysical survey was not designed appropriately to facilitate identification of historic properties, we recommend additional investigation of said anomaly cluster. This should include a review, by a qualified archaeological consultant, of all previously collected geophysical data sets for the anomaly cluster location. In particular, multibeam bathymetry and sub-bottom profiler data have the potential to provide valuable additional information about the anomalies. If the data does not conclusively indicate that the anomalies are modern or natural, additional targeted geophysical survey should be completed at the anomaly cluster location and diver investigation should be employed to identify the source of the anomalies, especially the source of contacts C99 and C102. A copy of the results of the data review, survey, and investigation must be submitted to the State Historic Preservation Office for review. As before, survey and reporting should follow the OREP Guidelines as well as this office's Archaeology Guidelines. We are again attaching a copy of the July 2015 *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585*. These guidelines should be provided to the applicant for dissemination to all consultants involved in the project.

OHIO HISTORY CONNECTION

800 E. 17th Ave., Columbus, OH 43211-2474 • 614.297.2300 • ohiohistory.org

Mr. Roak Parker
March 9, 2018
Page 4

The survey should be conducted by a qualified consultant. You may contact me for a list of qualified consultants or use the list we provide on our website:

<http://www.ohiohistory.org/hpreviews>. Consultants with a specialization in underwater investigation are indicated. Additional underwater archaeological consultants can be found online at: <http://underwaterarchaeologyjobs.wordpress.com/submerged-cultural-resource-management-firms/>.

We look forward to continuing coordination on this project in order to provide further comment, including receipt of information on consultation and public outreach, receipt of the previously requested digital data and corrected maps, and a report detailing the results of the additional survey and investigation of the anomaly cluster. If you have any questions, please contact me at kkennedy@ohiohistory.org or (614) 298-2000.

Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink, appearing to read "Kendra Kennedy", with a stylized flourish extending to the right.

Kendra Kennedy, Project Reviews Manager
State Historic Preservation Office

Serial Nos. 1072078 and 1072155

OHIO HISTORY CONNECTION

800 E. 17th Ave., Columbus, OH 43211-2474 • 614.297.2300 • ohiohistory.org



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

March 13, 2017

Reid Nelson
Director, Office of Federal and Agency Programs
Advisory Council on Historic Preservation
401 F Street NW, Suite 308
Washington DC 20001-2637

SUBJECT: Re-Request to Review Disputed Effect Finding for Project Icebreaker, Lake Erie, Ohio

Dear Mr. Nelson

This letter is in response to the letter from ACHP dated February 14, 2017 and provides the additional information requested in that letter.

Consultation with National Park Service, National Historic Landmarks Program

As requested, and pursuant to Section 800.10(c) DOE consulted with the Secretary of the Interior regarding any potential effects to the USS Cod. DOE discussed with Geoffrey Burt at the National Historic Landmarks Program (NHLP) the proposed project, the status of the effects finding (including the fact that DOE had requested ACHP to review and that ACHP had advised DOE to consult with NHLP), and the DOE request for consultation. DOE provided NHLP the Visual Impact Assessment, the Cultural Resource Assessment, the memo from EDR discussing impacts to the historic properties, a visualization taken from the USS Cod, the DOE consultation request to the Ohio State Historic Preservation Office (OSHPO), the response from OSHPO, the response from USS Cod Inc. regarding potential impacts. On March 6, 2018 NHLP responded to the request for consultation with a determination that NPS concurred with DOE that the project, as proposed, would not directly or indirectly alter any of the characteristics that qualified the USS Cod for designation as a NHL.

Cumulative Effects

DOE considers the cumulative effects of all proposed projects. For this proposed project, DOE analyzed potential cumulative effects for all known or reasonably foreseeable future developments, and included that analysis in the draft Environmental Assessment provided to the public.

DOE analyzes the cumulative impacts of reasonably foreseeable future projects, regardless of the project proponent. This does not, however, include projects which are mere speculation. To develop a list of proposed, under construction, recently completed, or reasonably anticipated to be implemented projects for the cumulative impacts analysis, Federal agencies were consulted (USACE and USCG) and publicly available resources were reviewed (ODOT, 2017; OEPA, 2017b; City of Cleveland, 2017). No wind energy projects beyond this Proposed Project were identified within the onshore, nearshore, or offshore environment.

As stated in section 1.3 above, the objectives of the National Offshore Wind Strategy are to:

- Reducing the costs and technical risks associated with domestic offshore wind development;
- Supporting stewardship of U.S. waters by providing regulatory certainty and understanding and mitigating environmental risks of offshore wind development; and
- Increasing understanding of the benefits and costs of offshore wind energy.

It is not an objective of the Strategy to develop offshore wind specifically within Lake Erie or the Great Lakes region. Instead, the objectives apply to all potential domestic offshore wind locations. This includes the 95,741 miles of U.S. coastline. Regarding potential future lake deployment, the lower 48 contains an estimated 125,000 lakes, while Alaska contains an estimated 3 million lakes. At this time DOE has no proposals or plans to support the specific construction of any offshore wind projects in Lake Erie beyond this proposal.

DOE acknowledges that LEEDCo's hope is that this demonstration project could support future wind development in Lake Erie. However, a mere hope or goal does not establish a reasonably foreseeable future project. At the current time there are no specific plans for any future projects; there are no proposals for any specific number or type of turbines and no potential locations identified which could be analyzed. As such, DOE considers the hope's of LEEDCo and other wind energy supporters to further develop offshore wind in this region speculative. If in the future, be it 5 years from now or 50 years from now, a specific project is proposed, that project will require it's own independent Section 106 analysis.

Because there are no proposals for future wind projects in Lake Erie, no proposed locations or turbine numbers or types to be analyzed, DOE has determined that there are no wind energy projects beyond this Proposed Project within the onshore, nearshore, or offshore environment.

Public Participation

DOE encourages the public to provide input through the National Environmental Policy Act (NEPA) process. This process is specifically provided for in 36 CFR Section 800.2 (c)(5)(d) (2) and (3), as well as 36 CFR Section 800.8. To fulfill the requirements of 36 CFR Section

800.5(c) DOE provides two separate comment periods, as described below, under which the public can provide comment.

On September 28, 2016 DOE held a public scoping meeting in Lakewood, Ohio. DOE sent over 5,000 postcards to local residents, provided email notice to all individuals who had notified DOE that they were interested in the project, sent emails to DOE list serves of individuals who are interested in wind energy, published notice in the Cleveland Plain Dealer, and posted notices around Cleveland in apartment buildings. At that open house meeting DOE presented information (in 2 by 4 foot poster format) describing the proposed project, describing the NEPA process, and identifying areas of interest that DOE would review in the draft EA. Included in those areas of interest were Cultural Resources as well as Visual and Aesthetic Impacts. DOE also presented two visual simulation posters of the proposed project. Present at the meeting to answer any questions were representatives of DOE, the U.S. Coast Guard, the U.S. Army Corps of Engineers, LEEDCo, West Consulting, Ch2M Consulting, and EDR consulting. EDR specifically had experts present to answer any questions about the visual simulations and visual impacts. DOE invited all individuals to provide written input to DOE regarding what issues DOE should review in the draft EA; either issues which were not identified by DOE or which were most important to those individuals. The public comment period opened on September 23, 2016 and closed on October 21, 2016.

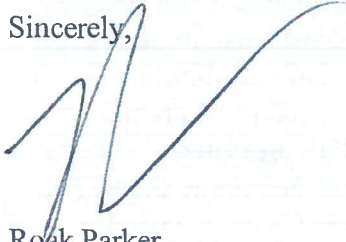
On September 6, 2017 DOE held a public meeting to present information from the draft EA and seek public comment on the draft EA. DOE provided notice to the public in the same manner that it provided notice for the public scoping meeting. In those notices DOE provided a link to the DOE webpage that included the draft EA as well as all appendices. The draft EA discussed the issues of cultural and historic resources as well as visual and aesthetic impacts. Appendices included the Visual Impact Assessment as well as the Cultural Resource Assessment. Present to provide information and answer questions at the public draft EA meeting were individuals from the same organizations as at the public scoping meeting. However, LEEDCo, Ch2M, DOE, and EDR all had additional individuals present. As with the scoping meeting, the public draft EA meeting included posters describing the proposed project as well as the NEPA process, but also included a poster describing the DOE role in offshore wind projects, and posters describing the potential impacts identified in the draft EA. While all areas of potential impact could not be represented by the posters, the posters did include a poster on visual and cultural resources as well as two visualization posters. Those posters were staffed by experts from EDR. DOE sought public comment on the content of the draft EA, including the visual and cultural resource analysis. The public comment period was opened on August 18, 2017 and closed on October 10, 2017.

In response to the draft EA, DOE received approximately 100 comments. DOE received no comments regarding visual impacts or cultural or historic resources.

Based on the above information, DOE re-requests that ACHP review the disagreement with finding pursuant to 36 CFR 800.5(c)(2)(i).

If you have any questions or require any additional information, please contact me at (720)356-1645 or roak.parker@ee.doe.gov.

Sincerely,

A handwritten signature in blue ink, consisting of a stylized 'R' followed by a long, sweeping horizontal line that curves upwards at the end.

Roak Parker
Environmental Protection Specialist

cc: Ohio State Historic Preservation Office



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

March 13, 2018

Kendra Kennedy
Project Reviews Manager
State Historic Preservation Office
Ohio History Connection
800 E. 17th Ave
Columbus, Ohio 43211

SUBJECT: *(Ohio State Historic Preservation Office project number 2010-CUY-10925)*
Continuation of Section 106 Consultation for LEEDCo Project Icebreaker

Dear Ms. Kennedy

This letter is in response to the letter from the Ohio State Historic Preservation Office (OSHPO) dated March 9, 2018. This letter provides information requested in the section of that letter titled "Consultation and the Public".

Tribal Consultation

The list of 25 tribes contacted by the Department of Energy (DOE) is attached. They received letters from USACE in November and/or December 2013 as USACE had started to review the proposed project at that time. DOE was not party to those letters. (According to USACE, no tribes responded to those letters). They then received the joint USACE, DOE, USCG letter in September 2016 attached. No Tribe responded directly to those letters. DOE followed up by calling every tribe and primarily leaving voice messages inviting further follow up or questions. DOE spoke directly with three tribes.

- **Red Lake Band of Chippewa Indians**
DOE spoke with Gene McArthur in the Natural Resources division who asked to be contacted via email. DOE followed up via email on January 6, 2017 and a phone call on the same day. DOE received no additional response from Mr. McArthur.
- **Chippewa-Cree Tribe of the Rocky Boy's Reservation**
The new chairperson called DOE on November 16, 2016 and asked to have a follow up phone call about the project. DOE returned this call on December 7, 2016 and December 15, 2016, left voicemail messages both times, and has not received a returned call.

- **Seneca Nation of Indians**

DOE spoke with Jay Toth (tribe archaeologist) who requested an email from DOE to arrange call for more project info. DOE emailed Mr. Toth on 1/6/17 as requested and left an additional voicemail to initiate a follow up phone call. DOE received no additional response from Mr. Toth.

DOE sent an additional letter to all tribes in August 2017 notifying them of the availability of the draft EA; a sample of that letter is attached. No tribe commented on the EA, the project, or has otherwise reached out to DOE beyond what is described above. No tribe has requested consulting status.

DOE did not provide copies of the July 28, 2017 OSHPO letter or the February 14, 2018 ACHP letter to the tribes.

Consulting Parties Information

As requested by the OHSPO in the letter to DOE dated July 28, 2017 DOE identified and contacted Consulting Parties. This included the owners of all the historic properties identified by OSHPO in that same letter, as well as additional the Cleveland Foundation which had provided grant funding to study preservation and potential use of the U.S. Coast Guard Cleveland Harbor Station. DOE emailed and spoke directly with all Consulting Parties except for the owner of the East Pierhead Lighthouse. DOE explained the proposed project and the potential impact and answered any questions the Consulting Parties had. DOE provided each consulting party with the Visual Impact Assessment (either in printed format or by internet link), the Cultural Resource Assessment, and the memo from EDR which directly addresses the specific question at issue, that is visual impact to the four historic properties. These documents have previously been provided to OSHPO. DOE also invited all Consulting Parties to review the DOE draft Environmental Assessment (EA) and all appendices to that draft EA. Regarding the East Pierhead lighthouse, DOE was unable to obtain an email or phone number of the registered owner. As such, DOE sent the entire packet identified above to the registered owner at the registered addresses in both Dayton, Ohio and New York, New York. That owner never signed the US Post Office card accepting service of those documents. As such, DOE followed up with a United Parcel Service package containing all the identified information and obtained proof that UPS left the packet at the registered owners address. A sample of the letter sent to consulting parties is attached. On January 18, 2017 DOE notified all consulting parties that DOE was submitting the determination of not adversely affecting historic properties to ACHP for review under 36 CFR 800.5(c)(2)(i). A sample of that letter is attached as.

Public Input

DOE encourages the public to provide input through the National Environmental Policy Act (NEPA) process. This process is specifically provided for in 36 CFR Section 800.2 (c)(5)(d) (2) and (3), as well as 36 CFR Section 800.8.

On September 28, 2016 DOE held a public scoping meeting in Lakewood, Ohio. DOE sent over 5,000 postcards to local residents, provided email notice to all individuals who had notified DOE that they were interested in the project, sent emails to DOE list serves of individuals who are interested in wind energy, published notice in the Cleveland Plain Dealer, and posted notices around Cleveland in apartment buildings. At that open house meeting DOE presented information (in 2 by 4 foot poster format) describing the proposed project, describing the NEPA process, and identifying areas of interest that DOE would review in the draft EA. Included in those areas of interest were Cultural Resources as well as visual and aesthetic impacts. DOE also presented two visual simulation posters of the proposed project. Present at the meeting to answer any questions were representatives of DOE, the U.S. Coast Guard, the U.S. Army Corps of Engineers, LEEDCo, West Consulting, Ch2M Consulting, and EDR consulting. EDR specifically had experts present to answer any questions about the visual simulations and visual impacts. DOE invited all individuals to provide written input to DOE regarding what issues DOE should review in the draft EA; either issues which were not identified by DOE or which were most important to those individuals. The public comment period opened on September 23, 2016 and closed on October 21, 2016.

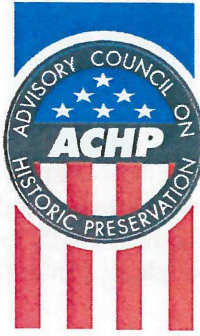
On September 6, 2017 DOE held a public meeting to present information from the draft EA and seek public comment on the draft EA. DOE provided notice to the public in the same manner that it provided notice for the public scoping meeting. In those notices DOE provided a link to the DOE webpage that included the draft EA as well as all appendices. The draft EA discussed the issues of cultural and historic resources as well as visual and aesthetic impacts. Appendices included the Visual Impact Assessment as well as the Cultural Resource Assessment. Present to provide information and answer questions at the public draft EA meeting were individuals from the same organizations as at the public scoping meeting. However, LEEDCo, Ch2M, DOE, and EDR all had additional individuals present. As with the scoping meeting, the public draft EA meeting included posters describing the proposed project as well as the NEPA process, but also included a poster describing the DOE role in offshore wind projects, and posters describing the potential impacts identified in the draft EA. While all areas of potential impact could not be represented by the posters, the posters did include a poster on visual and cultural resources as well as two visualization posters. Those posters were staffed by experts from EDR. DOE sought public comment on the content of the draft EA, including the visual and cultural resource analysis. The public comment period was opened on August 18, 2017 and closed on October 10, 2017.

In response to the draft EA, DOE received approximately 100 comments. DOE received no comments regarding visual impacts or cultural or historic resources.

If you have any questions or require any additional information, please contact me at (720)356-1645 or roak.parker@ee.doe.gov.

Sincerely,

Roak Parker
Environmental Protection Specialist



Preserving America's Heritage

March 23, 2018

Mr. Roak Parker
Environmental Protection Specialist
U.S. Department of Energy
Golden Field Office
15013 Denver West Parkway
Golden, CO 80401

Ref: *Disputed Effect Finding for Project Icebreaker*
Lake Erie, Ohio

Dear Mr. Parker:

On March 13, 2018, the Advisory Council on Historic Preservation (ACHP) received a request from the U.S. Department of Energy (DOE) to provide our advisory comments regarding a disputed effect finding for the proposed Project Icebreaker, an undertaking that will be located in Lake Erie off the coast of Ohio. The ACHP previously provided our comments to DOE, urging it to consult with the National Park Service since the undertaking's Area of Potential Effect (APE) included a National Historic Landmark. The ACHP also requested that DOE clarify how the public had been provided the opportunity to comment on the undertaking and DOE's effect finding, including the potential for cumulative or indirect effects on historic properties that may result from the undertaking.

DOE's most recent correspondence to the ACHP included additional information to the ACHP that responded to our comments. As we understand, DOE consulted with the NPS in accordance with Section 800.10(c) of our regulations, "Protection of Historic Properties" (36 CFR Part 800), which implement Section 106 of the National Historic Preservation Act. On March 6, 2018, NPS shared its opinion with DOE that the undertaking would not have an adverse effect on the USS Cod, an NHL located within the undertaking's APE.

DOE also provided information clarifying its consideration of cumulative effects that may result from this undertaking. Likewise, DOE stated that the undertaking is limited to the construction of only six wind turbines. While there may be additional turbines constructed in the future, such construction is speculative and presently outside of DOE's jurisdiction. DOE also clarified that it utilized its public participation process under the National Environmental Policy Act (NEPA) to provide information about the undertaking, its APE and DOE's effect finding. This appears to have met DOE's responsibility to provide for public participation under Section 106.

We note that while an agency may utilize its NEPA public notification process to meet the requirements of Section 106, DOE should incorporate specific language regarding Section 106 in any NEPA publications. This will ensure that the public clearly understands the purpose of the meeting and that documentation is meant to address both NEPA and Section 106, and that they are being afforded the opportunity to comment under both regulations.

ADVISORY COUNCIL ON HISTORIC PRESERVATION

401 F Street NW, Suite 308 • Washington, DC 20001-2637
Phone: 202-517-0200 • Fax: 202-517-6381 • achp@achp.gov • www.achp.gov

DOE appears to have made a reasonable and good faith effort to comply with the requirements of Section 106. Accordingly, DOE should specify how it intends to proceed, and whether it will affirm its original "no adverse effect" finding, or make revisions in accordance with 36 CFR Section 800.5(c)(3)(ii)(B). Should you have any questions regarding our comments, please contact Ms. Jaime Loichinger at (202) 517-0219 or via email at jloichinger@achp.gov.

Sincerely,

A handwritten signature in dark ink, appearing to read "Reid J. Nelson", with a long, sweeping horizontal flourish extending to the right.

Reid J. Nelson
Director
Office of Federal Agency Programs



In reply refer to:
2010-CUY-10925

April 13, 2018

Roak Parker, Environmental Protection Specialist
U.S. Department of Energy
Golden Field Office
15013 Denver West Parkway
Golden, CO 80401

RE: Section 106 Review, Icebreaker Offshore Demonstration Wind Farm Project, Lake Erie,
Cleveland, Cuyahoga County, Ohio

Dear Mr. Parker:

This letter is in response to project correspondence received March 13, 19, and 23, 2018, regarding the proposed Icebreaker Offshore Demonstration Wind Farm Project in Lake Erie north of Cleveland in Cuyahoga County, Ohio. The comments of the State Historic Preservation Office are made in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended, and the associated regulations at 36 CFR Part 800.

Based on additional information and discussions with the National Historic Landmarks (NHL) Program of the National Park Service, this office agrees that the project will not adversely affect the USS COD Submarine (National Register of Historic Properties [NRHP] No. 86000088 and a NHL). The USS COD's historic significance is not dependent on its integrity of location or setting; while the vessel is currently located on the Lake Erie shoreline in Cleveland, alterations to that location and setting will not adversely affect the integrity of the historic property. This office continues to recommend that the proposed project will have an indirect, adverse visual effect to the Universal Company Dock & Warehouse (NRHP No. 83001954), the U.S. Coast Guard Cleveland Harbor Station (NRHP No. 76001390), and the Cleveland East and West Pierhead Lights (NRHP Nos. 91001855 and 83001950). The undertaking will alter the integrity of setting of the properties, which contributes to their historic significance, and will introduce visual elements that are out of character with the setting of the historic properties.

In addition, this office recommends that the cumulative effects of the project have not been adequately considered. Per 36 CFR Section 800.5(1), "Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative." Early consultation efforts for the project with this office date to 2010. Beginning with the first feasibility and design studies, the project applicant stated that their vision was to "establish Cuyahoga County as a...key hub for the offshore wind energy industry in the Great Lakes", "make Northern Ohio the epicenter of freshwater wind," and use the Icebreaker Project "as a catalyst for a robust offshore wind energy industry in the Great Lakes."

Mr. Roak Parker
April 13, 2018
Page 2

The Icebreaker Offshore Demonstration Wind Farm Project has been specifically designed to demonstrate the feasibility of wind energy in Lake Erie so as to promote the development of wind energy in Lake Erie and the Great Lakes. We argue that it is wholly reasonably foreseeable that this undertaking will result in cumulative adverse effects from the construction of additional wind turbines in Lake Erie even if no federal or state agencies are currently aware of any such wind farm projects. In short, this undertaking is the demarcation line between a Lake Erie waterscape devoid of wind turbines and a Lake Erie waterscape blanketed with offshore wind farms.

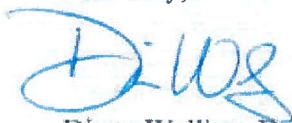
Regarding tribal consultation, thank you for providing additional information regarding efforts to contact tribes. It is clear that the Department of Energy (DOE) has made a significant effort to contact tribes. We recommend that a reasonable and good faith effort to consult with tribes should include providing them with information on this office's recommendations about the project, such as with a copy of this letter. DOE's last efforts at tribal consultation occurred in August 2017 when DOE notified tribes of the availability of a draft Environmental Assessment (EA). That EA did not include any discussion of DOE's consultation with this office. After reviewing the list of 25 tribes contacted by the DOE, we recommend that the DOE also contact the Miami Tribe of Oklahoma, the Eastern Shawnee Tribe of Oklahoma, the Absentee-Shawnee Tribe of Oklahoma, and the Shawnee Tribe. These tribes have significant historical ties to Ohio and have consulted on many undertakings in the state.

Similarly, we recommend that the DOE also provide all currently identified Consulting Parties with a copy of this letter. Finally, we appreciate the information provided regarding public input on the project. It is clear that ample information about historic properties and opportunities for public comment in regards to effects on historic properties were provided at the public meetings.

We look forward to continuing coordination on this project in order to provide further comment. If you have any questions, please contact me at dwelling@ohiohistory.org or (614) 298-2000.

Thank you for your cooperation.

Sincerely,



Diana Welling, Deputy State Historic Preservation Officer for
Resource Protection and Review

Serial No. 1072926

cc: Dr. Eric Boyle, Federal Preservation Officer, U.S. Department of Energy, 1000 Independence Avenue, SW, Room 7E-054, Washington, DC 20585-1000

Reid J. Nelson, Director, Office of Federal Agency Programs, Advisory Council on Historic Preservation, 401 F Street NW, Suite 308, Washington, DC 20001-2637

Geoffrey Burt, National Park Service, National Historic Landmarks Program, 601 Riverfront Drive, Omaha, NE 68102

OHIO HISTORY CONNECTION

800 E. 17th Ave., Columbus, OH 43211-2474 • 614.297.2300 • ohiohistory.org



In reply refer to:
2010-CUY-10925

June 20, 2018

Roak Parker, Environmental Protection Specialist
U.S. Department of Energy
Golden Field Office
15013 Denver West Parkway
Golden, CO 80401

RE: Section 106 Review, Icebreaker Offshore Demonstration Wind Farm Project, Lake Erie,
Cleveland, Cuyahoga County, Ohio

Dear Mr. Parker:

This letter is in response to project correspondence received April 11, 12, and 30 as well as June 6, 14, and 18, 2018, regarding the proposed Icebreaker Offshore Demonstration Wind Farm Project in Lake Erie north of Cleveland in Cuyahoga County, Ohio. The comments of the State Historic Preservation Office are made in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended, and the associated regulations at 36 CFR Part 800.

After receipt of project information in January and February of 2018 and review of same, this office identified several concerns in our letter of March 9, 2018. This letter noted concerns about the submitted information, geophysical survey, identification of historic properties, and consultation. The information provided in April and June of 2018 addressed these concerns as discussed below.

Digital Data

The digital geophysical survey data for the project was requested several times over the course of consultation. An external hard drive containing the digital geophysical survey data was finally received by this office on April 12, 2018. The data provided appears to be largely consistent with the parameters outlined in the *Digital Data* section of the Bureau of Ocean Energy Management's Office of Renewable Energy Programs July 2015 *Guidelines for Providing Archaeological and Historic Property Information Pursuant to 30 CFR Part 585* (OREP Guidelines).

Mapping

The large scale maps provided in the previous report submission addressed some of this office's concerns, but omitted key data as outlined in the *Archaeological Resource Charts* section of the

Mr. Roak Parker
June 20, 2018
Page 2

OREP Guidelines. The revised maps received by this office on April 30, 2018, contain the requisite information.

Geophysical Survey Design

The most significant area of concern identified upon review of the report revision received in January 2018 involved adequate survey parameters for identification of historic properties, particularly line spacing. The original report did not specify regular line spacing; this office requested that this be corrected when the report was revised. The report revision received in January 2018 indicated that regular line spacing was 35 meters, which exceeds the minimum line spacing of 30 meters specified in the OREP Guidelines. Upon inquiry, the applicant indicated that this was a typographical error and that regular line spacing was, in fact, 30 meters rather than 35 meters. The report received on April, 30, 2018, corrects this error.

Identification of Historic Properties

After reviewing the information provided in January and February of 2018, this office requested additional information about a cluster of anomalies. These anomalies include C99, C102, C104, C105, C106, C107, and M155. Additional information provided in the archaeological report addendum (*Addendum to Section 106 Geophysical Survey Review for Icebreaker Wind*, dated April 10, 2018) clarifies the nature of this cluster. Based on the additional information, this office agrees that this cluster does not appear to represent a historic property. This office agrees with the archaeological report recommendations that no submerged historic properties appear to be present in the project's direct area of potential effects.

Tribal Consultation

Regarding tribal consultation, we appreciate the provision of additional information regarding efforts to contact tribes. It is clear that the Department of Energy (DOE) has made a significant effort to contact tribes. We appreciate the DOE contacting the four additional tribes this office suggested in addition to the twenty-five tribes previously contacted about this project. Per the DOE, only two of the twenty-nine tribes responded to the DOE. No tribes requested consulting party status or indicated any concerns about the undertaking.

Recommendations

This office continues to recommend that the proposed project will have an indirect, adverse visual effect to the Universal Company Dock & Warehouse (National Register of Historic Properties [NRHP] No. 83001954), the U.S. Coast Guard Cleveland Harbor Station (NRHP No. 76001390), and the Cleveland East and West Pierhead Lights (NRHP Nos. 91001855 and 83001950). The undertaking will alter the integrity of setting of the properties, which contributes to their historic significance, and will introduce visual elements that are out of character with the setting of the historic properties.

In addition, this project will have cumulative effects as per 36 CFR Section 800.5(1), "Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative." As noted by the applicant in project correspondence and publically in the media, the Icebreaker Offshore Demonstration Wind Farm Project has been designed to demonstrate the feasibility of wind energy in Lake Erie

OHIO HISTORY CONNECTION

800 E. 17th Ave., Columbus, OH 43211-2474 • 614.297.2300 • ohiohistory.org

Mr. Roak Parker
June 20, 2018
Page 3

so as to promote the development of wind energy in Lake Erie and the Great Lakes. This office recommends that it is reasonably foreseeable that this undertaking will result in cumulative adverse effects from the construction of additional wind turbines in Lake Erie.

If you have any questions, please contact me at dwelling@ohiohistory.org or Kendra Kennedy at kkennedy@ohiohistory.org. You may also reach us at (614) 298-2000.

Thank you for your cooperation.

Sincerely,



Diana Welling, Deputy State Historic Preservation Officer for
Resource Protection and Review

Serial No. 1074439

cc: Beth A. Nagusky, Director of Sustainable Development, Lake Erie Energy Development Corporation, 1938 Euclid Avenue, Suite 200, Cleveland, OH 44115

cc: Stuart Siegfried, Ohio Power Siting Board, 180 East Broad Street, Columbus, OH 43215

OHIO HISTORY CONNECTION

800 E. 17th Ave., Columbus, OH 43211-2474 • 614.297.2300 • ohiohistory.org



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

June 21, 2018

Mr. Reid Nelson
Director, Office of Federal and Agency Programs
Advisory Council on Historic Preservation
401 F Street NW, Suite 308
Washington DC 20001-2637

SUBJECT: Finding of No Adverse Effect for Project Icebreaker, Lake Erie, Ohio

Dear Mr. Nelson

Through this letter, the Department of Energy (DOE) is notifying ACHP that DOE is affirming its no adverse effect finding regarding the proposed Project Icebreaker. This notification will also be sent to the Ohio State Historic Preservation Office (OHPO) as well as all consulting parties.

Background

On June 29, 2017, DOE requested initiation of consultation with OHPO for Project Icebreaker (the Proposed Project). Though that request DOE provided OHPO with information regarding the Proposed Project and sought concurrence regarding DOE's conclusion that no historic properties would be adversely affected by DOE's proposed action of providing funding in support of the Proposed Project. That request included a Phase 1 Archeological Survey, a Visual Impact Assessment and a Cultural Resource Effect Analysis.

On July 28, 2017, OHPO requested additional information from DOE in regards to geophysical reports, and notified DOE that it did not concur with the no adverse effect determination in regards to four historic properties:

- The Universal Company Dock & Warehouse (NRHP #83001954)
- The USS COD Submarine (NRHP #86000088 and a National Historic Landmark)
- The U.S. Coast Guard Cleveland Harbor Station (NRHP #76001390)
- Cleveland East and West Pierhead Lights (NRHP #9100185 and 83001950)

In response to the letter of July 28, 2017, DOE conducted additional analysis regarding the four historic properties. DOE presented that analysis (EDR Memo of August 21) to OHPO. Based, in part, on the supporting information in the EDR memo, DOE again determined that the occasional visual presence of the proposed project, which would be between 7.6 to 8.9 miles from the historic properties, would not "diminish the integrity of the property's significant historic features."

On October 3, 2017, OHPO again stated that it did not concur with DOE's determination of no adverse effect regarding those four properties and recommended that DOE identify and contact consulting parties.

In response to the October 3, 2017, letter DOE identified consulting parties. DOE identified and reached out to six consulting parties (five of whom are owners of the historic properties in question), provided them with documentation specified in 36 CFR 800.11(e), and sought their input regarding potential affects to, and appropriate mitigation regarding, the historic properties. Those six consulting parties were:

- Landmark Management Companies, the current owner of The Universal Company Dock and Warehouse
- USS COD submarine Memorial/COD Inc., the non-profit owner of the USS COD
- Gary Zaremba, registered owner of the East Pierhead Lighthouse
- The US Coast Guard, owner of the West Pierhead Lighthouse, owner of the “light” in the East Pierhead Lighthouse, and previous owner of the East Pierhead Lighthouse, and previous owner of the U.S. Coast Guard Cleveland Harbor Station
- The City of Cleveland (Landmarks), current owner of the U.S. Coast Guard Cleveland Harbor Station
- The Cleveland Foundation, a non-profit that funded research for potential uses of the U.S. Coast Guard Cleveland Harbor Station

Each consulting party who was a property owner was asked to provide input regarding their property. The Cleveland Foundation was asked to provide input in regards to the U.S. Coast Guard Cleveland Harbor Station. DOE received responses from Landmark Management Companies, COD Inc., The US Coast Guard, and the Cleveland Foundation. All consulting parties who responded stated that the proposed project would not have an adverse effect to the historic property’s significant historic features.

In the fall of 2017, DOE sent four mailings to Gary Zaremba at his registered addresses in Ohio and New York, however Mr. Zaremba failed to respond. DOE does not have a phone number or email address for Mr. Zaremba. In the fall of 2017, DOE sent information to the City of Cleveland, had conversations with John Hoose and Donald Petit from the city and provided additional information per their requests. The City did not provide any input.

Based in part on the input from consulting parties (again, all consulting parties stated that the proposed project would not have an adverse effect on the historic property’s significant historic features), DOE again determined that there would be no adverse effect.

On January 18, 2018, DOE requested that ACHP review the disagreement with finding pursuant to 36 CFR 800.5 (c)(2)(i).

On February 14, 2018, ACHP requested additional information from DOE, including additional information on potential cumulative effects, and advised that DOE should consult with the Secretary of Interior regarding the USS COD, a National Historic Landmark.

In response, DOE initiated consultation with the Secretary of the Interior through the National Park Service, National Historic Landmarks Program in regards to potential impacts to the USS COD. On March 6, 2018, the National Park Service, National Historic Landmarks Program concurred with DOE’s determination that the Proposed Project would not have an adverse effect in regards to the USS COD and “would not directly or indirectly alter any of the characteristics that qualified the USS Cod for designation as a NHL.”

On March 13, 2018, DOE provided to the ACHP the additional information requested, including an analysis of cumulative effect, and provided the results of the consultation with the Secretary of the Interior. A copy was also provided to OHPO.

On March 23, 2018, ACHP, by letter to DOE, stated that "DOE appears to have made a reasonable and good faith effort to comply with the requirements of Section 106." Further, ACHP requested that DOE specify whether it will affirm its original "no adverse effect" finding.

On June 20, 2018, DOE received a final recommendation from OHPO. In that letter OHPO concurred with DOE that the Proposed Project would have no adverse effect to cultural or archeological resources. OHPO confirmed that the DOE "had made a significant effort to contact tribes," and that "no tribes requested consulting party status of indicated any concerns about the undertaking." OHPO concurred that the project would have no adverse effect in regards to the USS COD. However, OHPO did not concur that the Proposed Project would have no adverse effect in regards to three properties, the Universal Company Dock & Warehouse, the U.S. Coast Guard Cleveland Harbor Station, and the Cleveland East and West Pierhead Lights. In addition, OHPO recommended that the project would have cumulative effects as per 36 CFR Section 800.5(1).

Assessment of Effect

Based on the analysis conducted in the Visual Impact Assessment, the Cultural Resource Effect Analysis, the EDR Memo regarding the four historic properties, the determination from all consulting parties that the proposed project would have no adverse effect to the historic property's significant historic features, the concurrence regarding no adverse effect regarding the USS COD from the Secretary of the Interior, and the March 23, 2018 letter from ACHP stating that DOE appears to have made a reasonable and good faith effort to comply with the requirements of Section 106, DOE is affirming its no adverse effect finding regarding the proposed Project Icebreaker.

If you have any questions or require any additional information, please contact me at (720)356-1645 or roak.parker@ee.doe.gov.

Sincerely,



Roak Parker
Environmental Protection Specialist

cc:
Ohio State Historic Preservation Office
Landmark Management Companies
USS COD Submarine Memorial/COD Inc.
Gary Zaremba,
The US Coast Guard
The City of Cleveland (Landmarks)
The Cleveland Foundation
National Park Service, National Historic Landmarks Program

