December 12, 2012

Maureen Bornholdt Renewable Energy Program Manager Office of Renewable Energy Bureau of Ocean Energy Management 381 Elden Street Herndon, Virginia 20170

RE: Proposed Mitigation Measures to Protect North Atlantic Right Whales from Site Assessment and Characterization Activities of Offshore Wind Energy Development in the Mid-Atlantic Wind Energy Areas

Dear Ms. Bornholdt:

The undersigned parties write to inform you of a landmark agreement reached with respect to additional mitigation measures to protect the North Atlantic right whale while undertaking certain site assessment and characterization activities necessary for offshore wind energy development in the mid-Atlantic Wind Energy Areas. The agreement is the result of an extensive and collaborative effort between leading offshore wind developers and conservation Non-Governmental Organizations, who came together voluntarily to address these issues to forward their mutual interest in the sustainable deployment of offshore wind, with input from leading North Atlantic right whale scientific experts.

The North Atlantic right whale is the focus of this agreement because it is a critical endangered species. Our organizations are deeply committed to the development of clean renewable wind energy as expeditiously as possible and in an environmentally responsible manner.

In August and September of this year, the parties to this agreement briefed staff within the Renewable Energy Program at the Bureau of Ocean Energy Management and staff within the Office of Protected Resources at the National Oceanic Atmospheric Administration's (NOAA) National Marine Fisheries Service. We also briefed NOAA's Director of Policy and General Counsel. We have generally incorporated the feedback from these briefings into these measures, and we appreciate the engagement of your staff.

The agreed-upon measures are specific to activities in the mid-Atlantic Wind Energy Areas only. This agreement does not exempt any developer, party to the agreement, from any of the project design criteria that are detailed in Appendix B of the January 2012 Environmental Assessment of Commercial Wind Lease issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore New Jersey, Delaware, Maryland, and Virginia (mid-Atlantic EA). The measures set forth in this agreement do however reflect the commitment of any developer, or party to the agreement, to undertake these steps, beyond existing requirements, to provide additional protections for the North Atlantic right whale. The agreed upon measures are within the range of alternatives considered in the Mid-Atlantic EA. The agreement is not intended to indicate any insufficiency in the mid-Atlantic EA analysis. We have agreed to the following mitigation measures to protect the North Atlantic right

whale, when it migrates though the Mid-Atlantic, during site assessment and characterization activities related to offshore wind energy development in the Mid-Atlantic Wind Energy Areas. The agreement is limited to these specific activities in these specific areas.

Seasonal Restrictions on Sub-bottom Profiling and on Pile Driving for Meteorological Tower Installation: Seasonal restrictions on sub-bottom profiling and pile driving for meteorological tower installation shall be as follows:

May 1 – October 31, The Green Period: during this period sub-bottom profiling and pile driving for meteorological tower installation can occur in accordance with the mitigation requirements specified in the mid-Atlantic EA and additional mitigation measures contained in this agreement, as applicable.

March 22 – April 30 and November 1 – November 22, The Yellow Period: during this period sub-bottom profiling and pile driving for meteorological tower installation can occur in accordance with the mitigation requirements specified in the mid-Atlantic EA and additional mitigation measures contained this agreement, as applicable, provided that the Developer completes a site specific risk assessment that includes:

- an assessment of the potential for Right Whale activity during period of survey;
- an acoustic assessment of the specific equipment to be used; and
- a site specific Marine Mammal Harassment Avoidance Plan.

The risk assessment shall be made available to BOEM, NMFS, and to the NGO parties of this agreement prior to commencement of activities.

November 23 – March 21, The Red Period: this period shall be a seasonal exclusion for all pile driving and sub-bottom profiling activity.

- Vessel Speed Restriction: A 10 knot speed limit restriction during the period November 1 April
 30 on all vessels of any length associated with site assessment surveys and site characterization
 activities, including survey vessels as well as support vessels, operating in and transiting to and
 from the Wind Energy Area.
- 2. Use of Noise Attenuation and Source Level Reduction Technology to Reduce Sound during Meteorological Tower Construction: During The Yellow Period (March 22 April 30 and November 1 November 22): The developer shall use the best commercially available technology, such as bubble curtains, cushion blocks, temporary noise attenuation pile design, vibratory pile drivers and/or press-in pile drivers, in order to reduce the pile driver source levels and horizontal propagation, unless such technology is prohibitively expensive for the project. The developer will employ engineering expertise to determine the best available technology for each pile driving site (or this may be done programmatically for a series of sites) and the engineering analysis and cost analysis shall be made available.

3. **Establishment of Exclusion Zone**: A minimum 500 m (1640 ft) radius exclusion zone for all marine mammals and sea turtles shall be established around the sub-bottom profiler with an exception for dolphins that, in the determination of the visual observers, are approaching the vessel at a speed and vector that indicates voluntary approach to bow-ride. The presumed 500 meter exclusion zone should be confirmed using sound source validation before sub-bottom profiling begins, and the exclusion zone should be enlarged for the duration of site characterization activity if the 160 dB isopleth extends beyond 500 meters from the source. For sound source validation, developers will conduct in-field empirical measurements of the distances in the broadside and endfire directions at which broadband received levels (for boomer sources) or received levels at each operating frequency (for chirp sources) below 22 kHz reach 180 and 160 dB re 1 μ Pa (RMS) for the sub-bottom profiling source that will be employed. Results will be reported to BOEM and NMFS and made available within five days.

4. Real-time Monitoring Effort:

May 1 – October 31, The Green Period:

Sub-bottom profiling: Provide 2 dedicated, qualified NMFS-approved observers (1 on/1 off) at each sub-bottom profiling site to effectively maintain a steady visual watch during the course of the sub-bottom profiling.

Pile driving during meteorological tower installation: Provide a minimum of 4 dedicated, qualified NMFS-approved observers (2 on/2 off with each observer covering 180 degrees from bow to stern) at each pile driving site to effectively maintain a steady visual watch during the course of the pile driving activity and to provide for effective monitoring in all directions around the sound source.

March 22 – April 30 and November 1 – November 22, The Yellow Period:

Sub-bottom profiling: Provide a minimum of 2 dedicated, qualified NMFS-approved observers (1 on/1 off) at each sub-bottom profiling site to effectively maintain a steady visual watch during the course of the sub-bottom profiling. Four dedicated, qualified NMFS-approved observers (2 on/ 2 off) shall be provided if the source vessel is of sufficient size to accommodate the two additional personnel. Observers employed during **The Yellow Period** shall have at least 1 year of experience as professional marine mammal observers or equivalent academic experience.

Pile driving during meteorological tower installation: Provide a minimum of 4 dedicated, qualified NMFS-approved observers (2 on/2 off, with each observer covering 180 degrees from bow to stern) at each pile driving site to effectively maintain a steady visual watch during the course of the pile driving activity and to provide for effective monitoring in all directions around the sound source. Observers employed during The

Yellow Period shall have at least 1 year of experience as professional marine mammal observers or equivalent academic experience.

Visibility: Sub-bottom profiling can take place at night if the site specific risk assessment shows acceptable results in night conditions. Pile-driving will not take place at night. Developer will not start driving a pile unless, under normal circumstances, completion of the pile can be achieved during daylight hours. In the event that the developer begins driving a pile with the plan to achieve full penetration during daylight hours, but a situation arises that jeopardizes pile penetration if the drive is not completed, the developer may continue driving the pile into nighttime hours to protect human health, the environment, or completion of the drive.

If the exclusion zone is obscured by fog, no sub-bottom profiling or pile-driving activity, including ramp-up, will be initiated until the exclusion zone is visible for 30 minutes.

Aerial surveys: During only the March 22-April 30 portion of The Yellow Period:

During pile driving, in order to focus effort on detecting right whales as they approach the source on their northward migration, aerial surveys will be conducted on the south side of the acoustic source. During aerial surveys, the developer will maintain a partially extended exclusion zone for North Atlantic right whales, shutting down if any right whale is observed within the smaller of the 120 dB isopleth or 30-kilometer radius around the south side of the source.

November 23 – March 21, The Red Period: N/A

We agree that these mitigation measures will remain in place for at least four years. At that time they may be revised to reflect new information and best practices that have become available.

To reiterate, this agreement is only applicable to site characterization and site assessment activities in the mid-Atlantic Wind Energy Areas. It does not apply to the construction and operations phases, nor does it imply or suggest what measures may be appropriate at the construction and operations phases. Construction and Operations Plans (COPs) will be subject to a separate environmental review, permitting and approval process by the federal government.

Next Steps

We expect to reach out to other stakeholders to join in this agreement as we move forward, and we will keep you posted on this process. Please feel free to contact us if you have any questions, and we look forward to continuing to work with you as we move forward with the deployment of sustainable offshore wind in the United States.

Sincerely,

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