21 April 2014

Ms. Jolie Harrison, Chief
Incidental Take Program Supervisor
Permits and Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3225

Dear Ms. Harrison:

The Marine Mammal Commission (the Commission), in consultation with its Committee of Scientific Advisors on Marine Mammals, has reviewed the application submitted by Deepwater Wind Block Island, LLC (DWBI), seeking authorization under section 101(a)(5)(D) of the Marine Mammal Protection Act (the MMPA) to take small numbers of marine mammals by harassment. The taking would be incidental to construction of the Block Island Wind Farm (BIWF) from December 2014 through November 2015 off Rhode Island. The Commission also has reviewed the National Marine Fisheries Service's (NMFS) 25 March 2014 notice (79 Fed. Reg. 16301) announcing receipt of the application and proposing to issue the authorization, subject to certain conditions.

RECOMMENDATIONS

The Marine Mammal Commission recommends that the National Marine Fisheries Service—

- require DWBI to (1) provide additional information regarding the data and assumptions used to derive density estimates and (2) address apparent inconsistencies in the density estimates for six of the nine affected species;
- include in each of its *Federal Register* notices for proposed incidental harassment authorizations a sufficiently detailed description of the status and distribution (including seasonality) of the species of marine mammals likely to be affected by the proposed activities to allow the public to review and comment on the proposed authorization as a stand-alone document;
- require DWBI to (1) provide estimated source levels associated with all cable installation activities (i.e., horizontal directional drilling, jet plowing, and vibratory sheet pile driving off Block Island) and (2) estimate the number of takes associated with those activities, if indeed the source levels for those activities exceed the threshold for Level B harassment; and
- require all DWBI vessels to reduce speeds to less than 10 knots from 1 November to 30 April in all areas of operation.

BACKGROUND

DWBI proposes to construct five wind turbine generators, each with a capacity of six megawatts, off Block Island, Rhode Island. DWBI identified four stages of construction: (1) cable landfall construction on Block Island, (2) jacket foundation construction for the wind turbine generators, (3) inter-array and export cable installation, and (4) installation of the wind turbine generators. This project is being conducted in conjunction with construction of the Block Island Transmission System, which is addressed in a separate incidental harassment authorization application (79 Fed. Reg. 15573).

At the Block Island site, DWBI would install a temporary cofferdam and excavate a trench on Crescent Beach between the mean high and low water lines, using vibratory pile driving (as necessary) to install the steel sheet piles for the cofferdam. NMFS stated in the *Federal Register* notice that it is unlikely that sound associated with vibratory sheet pile driving at the Crescent Beach site, if used, would result in harassment of marine mammals. DWBI would then use a short-distance[1] horizontal directional drill to connect the export cable from a point on land to the excavation trench. DWBI would install the wind turbine generators offshore using a moored derrick barge and a hydraulic impact hammer. Pile driving to install the foundation piles would occur for four days for each foundation, for a total of 20 days of impact pile driving. A cable installation barge equipped with a dynamic positioning system would then be used in conjunction with a jet plow to install the export cable between Block Island and the BIWF site, and to install the inter-array cable between each of the wind turbine generators. Submarine cable installation would occur for up to four weeks (28 days maximum). Once the jacket foundations are in place and the cables have been installed, DWBI would install the turbine generators using a jack-up barge. NMFS does not anticipate takes by harassment from the installation of the turbine generators onto the pile-driven foundations.

NMFS preliminarily has determined that the proposed activities could result in a temporary modification in the behavior of small numbers of up to nine species of marine mammals, but that any impact on the affected species would be negligible. It does not anticipate any take of marine mammals by death or serious injury. NMFS believes that the potential for temporary or permanent hearing impairment will be at the least practicable level because of the proposed mitigation and monitoring measures. Those measures include—

(1) conducting in-situ sound source and sound propagation measurements during impact pile driving;
(2) using sound measurements to adjust, as necessary, the proposed exclusion and harassment zones (based on the Level A and B harassment thresholds for the two hammer types);
(3) using protected species observers to monitor the relevant exclusion and harassment zones for 30 minutes before, during, and for 30 minutes after impact pile driving and use of the dynamic-positioning system;

[1] DWBI indicated in its application that although using a short-distance horizontal directional drill method at the Block Island site was its preferred cable landfall method, it may have to use long-distance horizontal directional drilling and install a temporary cofferdam offshore. If so, NMFS would need to amend its proposed IHA to account for takes associated with four days of vibratory pile driving.

(4) installing the jacket foundation piles only during daylight hours or when lighting and weather conditions allow for visual monitoring of the entire exclusion zone[2];
(5) using "soft-start" procedures at the beginning of each pile driving session and after activities cease for more than 30 minutes;
(6) delaying or shutting down pile driving activities if the exclusion zone is obscured by fog or poor lighting conditions or if an observer detects a marine mammal within the exclusion zone;
(7) reducing the power of the dynamic positioning system to the maximum extent possible if a marine mammal approaches or enters the 160 dB re 1 μPa zone;
(8) reporting injured and dead marine mammals to the NMFS Office of Protected Resources and the Greater Atlantic Regional Stranding Coordinator using NMFS's phased reporting approach and suspending activities, if appropriate; and
(9) submitting a final report to NMFS.

RATIONALE

Densities used to estimate takes

DWBI and NMFS identified 32 species of marine mammals with possible or confirmed occurrence in the proposed project area (Table 2). However, DWBI requested take authorizations for only nine of those species. NMFS referred the reader to DWBI's application and the NMFS marine mammal stock assessment reports for information regarding the biology and local distribution of marine mammals that may occur in the project area. The Commission agrees that the species for which DWBI requested takes are those most likely to be affected by the proposed project activities. However, NMFS should have included in the *Federal Register* notice a description of the status and distribution (including seasonality) of the species of marine mammals likely to be affected by the proposed activities, as was provided by DWBI in its application.

Of greater concern is the lack of information on how density estimates for cetaceans were derived. DWBI stated in its application that it used sightings-per-unit-effort information from Kenney and Vigness-Raposa (2009), but deriving density estimates from those data requires certain assumptions regarding sightings distances and other parameters. Without information on those assumptions, it is difficult to evaluate the appropriateness of the density and associated take estimates for the periods and areas of proposed operation for each of the species. In addition, there are apparent discrepancies in the density estimates. For example, it is not clear why, for six of the nine species, DWBI used maximum seasonal densities for estimating impact pile-driving takes that were different than the maximum seasonal densities used for estimating dynamic positioning-related takes. There are also unexplained discrepancies between the maximum seasonal densities provided for this project and the maximum seasonal densities provided for the Deepwater Wind Block Island Transmission System project (79 Fed. Reg. 15573) for three of the nine species, even though both projects are proposed to occur during the same timeframe and in the same general areas. The Commission recommends that NMFS require DWBI to (1) provide additional information regarding the data and assumptions used to derive density estimates and (2) address apparent inconsistencies in the density estimates for six of the nine affected species. The Commission further

[2] If a temporary cofferdam needs to be installed offshore of the Block Island site, this measure should include a similar restriction on the installation and removal of sheet piles for the cofferdam.

recommends that NMFS include in each of its *Federal Register* notices for proposed incidental harassment authorizations a sufficiently detailed description of the status and distribution (including seasonality) of the species of marine mammals likely to be affected by the proposed activities to allow the public to review and comment on the proposed authorization as a stand-alone document.

Including takes associated with other construction activities

DWBI estimated Level B harassment takes associated with impact pile driving and the use of a dynamic positioning system by the cable installation barge. DWBI stated in its application that sound levels associated with other construction activities (horizontal directional drilling and jet plowing associated with submarine cable installation) would not be of concern. It also did not consider the potential use of vibratory pile driving to install the temporary cofferdam off Block Island, if excavation of an offshore cable trench is found to be necessary. Therefore, DWBI did not request, and NMFS did not propose, an incidental harassment authorization associated with those other cable installation activities. It is unclear what information DWBI and NMFS used as the basis for determining that takes from those other activities would not occur, as DWBI did not provide estimates of sound levels associated with those activities. For similar projects involving drilling and excavation to install submarine pipelines, applicants have included estimated sound levels for those activities in their incidental harassment authorization applications. For example, Port Dolphin Energy LLC estimated that horizontal directional drilling, pipe laying, and pipe burial would have sound levels that exceeded the threshold for Level B harassment of 120 dB re 1 μPa (Table 6 in 77 Fed. Reg. 55646). Takes associated with each of those activities were estimated and included as part of the proposed incidental harassment authorization.

Without information from DWBI on the estimated sound levels for other cable installation activities, it is premature for NMFS to determine that no takes would result from DWBI's other cable installation activities. Therefore, the Commission recommends that NMFS require DWBI to (1) provide estimated source levels associated with all cable installation activities (i.e., horizontal directional drilling, jet plowing, and vibratory sheet pile driving off Block Island) and (2) estimate the number of takes associated with those activities, if indeed the source levels for those activities exceed the threshold for Level B harassment.

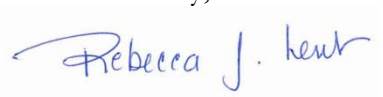
Mitigation measures to protect North Atlantic right whales

DWBI has proposed to conduct cable installation from December 2014 to November 2015. Therefore, some of the proposed vessel activities would overlap with the migratory presence of the North Atlantic right whale, a critically endangered species. The migratory corridor extends from calving areas to the south, off Florida and Georgia, to feeding areas in the Gulf of Maine. NMFS has established a seasonal management area off Block Island that is in effect from 1 November through 30 April, during which time vessels greater than or equal to 19.8 m are required to reduce speeds to 10 knots or less to reduce the risk of vessel strikes (73 Fed. Reg. 60173). Since right whales move past Block Island during these times, and may also be found in waters off Rhode Island closer to shore[3], the Commission believes that additional measures are needed to reduce the potential for vessel strikes. Therefore, the Commission recommends that NMFS require all DWBI vessels to reduce speeds to less than 10 knots from 1 November to 30 April in all areas of operation.

[3] http://www.nefsc.noaa.gov/psb/surveys/

The Commission appreciates the opportunity to provide comments on DWBIT's application. Please contact me if you have questions concerning the Commission's recommendations.

Sincerely,



Rebecca J. Lent, Ph.D.
Executive Director

cc: Mary Colligan, NMFS Greater Atlantic Region

Reference

Kenney, R.D. and Vigness-Raposa, K.J. 2009. Marine Mammals and Sea Turtles of Narragansett Bay, Block Island Sound, Rhode Island Sound, and Nearby Waters: An Analysis of Existing Data for the Rhode Island Ocean Special Area Management Plan. Rhode Island Coastal Resources Management Council Technical Report, May 31, 2009.