



DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648- XD419]

Takes of Marine Mammals Incidental to Specified Activities; Taking Marine Mammals Incidental to Marine Site Characterization Surveys in the Area of Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf Lease Areas OCS-A 0486, 0487, and 0500

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; issuance of Renewal incidental harassment authorization.

SUMMARY: In accordance with the regulations implementing the Marine Mammal Protection Act (MMPA) as amended, notification is hereby given that NMFS has issued an incidental harassment authorization (IHA) to Orsted Wind Power North America LLC (Orsted) for the renewal of their 2022 incidental harassment authorization (IHA) (hereinafter, the 2022 IHA is referred to as the “initial IHA” and the 2023 IHA is referred to as the “Renewal IHA”) to take marine mammals incidental to marine site characterization surveys, using high-resolution geophysical (HRG) equipment, in coastal waters from New York to Massachusetts, including the Bureau of Ocean Energy Management (BOEM) Commercial Lease of Submerged Lands for Renewable Energy Development on the Outer Continental Shelf (OCS) Lease Areas OCS-A 0486, 0487, 0500 and along potential export cable routes (ECR).

DATES: This Renewal IHA is valid October 6, 2023 to October 5, 2024.

ADDRESSES: Electronic copies of the original application, Renewal IHA request, and supporting documents (including NMFS **Federal Register** notices of the original proposed and final authorizations, and the initial IHA), as well as a list of the references

cited in this document, may be obtained online at:

<https://www.fisheries.noaa.gov/permit/incidental-take-authorizations-under-marine-mammal-protection-act>. In case of problems accessing these documents, please call the contact listed below.

FOR FURTHER INFORMATION CONTACT: Karolyn Lock, Office of Protected Resources, NMFS, (301) 427-8401.

SUPPLEMENTARY INFORMATION:

Background

The Marine Mammal Protection Act (MMPA) prohibits the “take” of marine mammals, with certain exceptions. Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce (as delegated to NMFS) to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are promulgated or, if the taking is limited to harassment, an incidental harassment authorization is issued.

Authorization for incidental takings shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s) and will not have an unmitigable adverse impact on the availability of the species or stock(s) for taking for subsistence uses (where relevant). NMFS must prescribe the permissible methods of taking and other “means of effecting the least practicable adverse impact” on the affected species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stocks for taking for certain subsistence uses (referred to here as “mitigation measures”). NMFS must also prescribe requirements pertaining to monitoring and reporting of such takings. The definitions of key terms such as “take,” “harassment,” and “negligible impact” can be found in the

MMPA and NMFS implementing regulations (*see* 16 U.S.C. 1362; 50 CFR 216.3; 50 CFR 216.103).

NMFS' regulations implementing the MMPA at 50 CFR 216.107(e) indicate that IHAs may be renewed for additional periods of time not to exceed 1 year for each reauthorization. In the notice of proposed IHA for the initial IHA, NMFS described the circumstances under which we would consider issuing a renewal for this activity, and requested public comment on a potential renewal under those circumstances. Specifically, on a case-by-case basis, NMFS may issue a 1-time 1-year renewal of an IHA following notice to the public providing an additional 15 days for public comments when (1) up to another year of identical, or nearly identical, activities as described in the Detailed Description of Specified Activities section of the initial IHA issuance notice is planned, or (2) the activities as described in the Description of the Specified Activities and Anticipated Impacts section of the initial IHA issuance notice would not be completed by the time the initial IHA expires and a renewal would allow for completion of the activities beyond that described in the **DATES** section of the notice of issuance of the initial IHA, provided all of the following conditions are met:

1. A request for renewal is received no later than 60 days prior to the needed renewal of the initial IHA effective date (recognizing that the renewal's expiration date cannot extend beyond 1 year from expiration of the initial IHA);
2. The request for renewal must include the following:
 - An explanation that the activities to be conducted under the requested renewal are identical to the activities analyzed under the initial IHA, are a subset of the activities, or include changes so minor (*e.g.*, reduction in pile size) that the changes do not affect the previous analyses, mitigation and monitoring requirements, or take estimates (with the exception of reducing the type or amount of take); and

- A preliminary monitoring report showing the results of the required monitoring to date and an explanation showing that the monitoring results do not indicate impacts of a scale or nature not previously analyzed or authorized; and

3. Upon review of the request for renewal, the status of the affected species or stocks, and any other pertinent information, NMFS determines that there are no more than minor changes in the activities, the mitigation and monitoring measures will remain the same and appropriate, and the findings in the initial IHA remain valid.

An additional public comment period of 15 days (for a total of 45 days), with direct notice by email, phone, or postal service to commenters on the initial IHA, is provided to allow for any additional comments on the proposed renewal. A description of the renewal process may be found on our website at: <https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-harassment-authorization-renewals>.

Summary of Request

On October 6, 2022, NMFS issued an IHA to Orsted to take small numbers of marine mammals incidental to marine site characterization surveys in Federal and state waters located in Lease Areas OCS-A 0486, 0487, 0500 off the coasts from New York to Massachusetts and along potential ECRs to landfall locations between Raritan Bay (part of the New York Bight) and Falmouth, Massachusetts. On May 26, 2023, NMFS received a request for a renewal of that initial IHA because Orsted's marine site characterization surveys under the initial IHA had not yet occurred and more time is required. As described in the application for the Renewal IHA, the activities for which incidental take is requested are identical to those covered by the initial IHA. However, Orsted decreased the number of survey days from 400 to 390 based on the assumption that subsidiaries of Orsted will have separate incidental take authorizations for marine site characterization surveys in Lease Areas OCS-A 0486 (Revolution Wind; 88 FR 8996, February 10, 2023) and OCS-A 0487 (Sunrise Wind; 87 FR 79072, January 19,

2023) during the effective period of the Renewal IHA. NMFS has authorize incidental take through this Renewal IHA assuming 400 survey days will be necessary as NMFS has not promulgated final rules for Revolution Wind and Sunrise Wind. The notice of the proposed Renewal IHA was published on September 11, 2023 (88 FR 62337).

As no work has commenced under the initial IHA, Orsted cannot provide a preliminary monitoring report. However, if work occurs before the effective date of the proposed Renewal IHA, a preliminary monitoring report would be required and be made available on NMFS' website (available at <https://www.fisheries.noaa.gov/national/marine-mammal-protection/incidental-take-authorizations-other-energy-activities-renewable>) and would detail any implemented mitigation and monitoring and show that no impacts of a scale or nature not previously analyzed or authorized have occurred as a result of the activities conducted. Orsted has complied with all the requirements (*e.g.*, mitigation, monitoring, and reporting) of the previous IHAs in Lease Areas OCS-A 0486, 0487, and 0500 (84 FR 52464, October 2, 2019; 85 FR 63508, October 8, 2020; 87 FR 13975, March 11, 2022).

On August 1, 2022, NMFS announced proposed changes to the existing North Atlantic right whale vessel speed regulations to further reduce the likelihood of mortalities and serious injuries to endangered North Atlantic right whales from vessel collisions, which are a leading cause of the species' decline and a primary factor in an ongoing Unusual Mortality Event (87 FR 46921). Should a final vessel speed rule be issued and become effective during the effective period of this proposed Renewal IHA (or any other MMPA incidental take authorization), the authorization holder would be required to comply with any and all applicable requirements contained within the final rule. Specifically, where measures in any final vessel speed rule are more protective or restrictive than those in this or any other MMPA authorization, authorization holders would be required to comply with the requirements of the rule. Alternatively, where

measures in this or any other MMPA authorization are more restrictive or protective than those in any final vessel speed rule, the measures in the MMPA authorization would remain in place. These changes would become effective immediately upon the effective date of any final vessel speed rule and would not require any further action on NMFS's part.

Description of the Specified Activities and Anticipated Impacts

Orsted plans to conduct marine site characterization surveys, specifically HRG surveys, in the Lease Areas OCS-A 0486, 0487, 0500 and ECR Area in Federal and state waters from New York to Massachusetts to support the characterization of the existing seabed and subsurface geological conditions, which is necessary for the development of an offshore electric transmission system. The project would use active acoustic sources, including some with potential to result in the incidental take of marine mammals by Level B harassment.

This Renewal IHA is identical to the initial IHA and conservatively assumes no work will occur for the remainder of the initial IHA.

The Renewal IHA would authorize incidental take, by Level B harassment only (in the form of behavioral disturbance), of 16 species or stocks of marine mammals for identical marine site characterization survey activities to be completed in 1 year, in the same area, using survey methods identical to those described in the initial IHA application. Therefore, the anticipated effects on marine mammals and the affected stocks also remain the same. The amount of take, by Level B harassment, requested for the Renewal IHA is also identical to that authorized in the initial IHA. All mitigation, monitoring, and reporting measures would remain exactly as described in the **Federal Register** notice of the issued initial IHA (87 FR 61575, October 12, 2022).

Detailed Description of the Activity

A detailed description of the marine site characterization survey activities for which incidental take is authorized may be found in the **Federal Register** notice of the proposed IHA (87 FR 52515, August 26, 2022) for the initial authorization. The location and nature of the activities, including the types of equipment planned for use, are identical to those described in the previous notices. This Renewal IHA is effective from October 6, 2023 through October 5, 2024.

Description of Marine Mammals

A description of the marine mammals in the area of the activities for which authorization of take is proposed here, including information on abundance, status, distribution, and hearing, may be found in the **Federal Register** notice of the proposed IHA for the initial authorization (87 FR 52515, August 26, 2022). NMFS has reviewed the recently finalized 2022 Stock Assessment Reports (SARs), which included updates to stock abundances since the initial IHA was issued, information on relevant Unusual Mortality Events, and other scientific literature. In August 2023, NMFS released its final 2022 SARs, which updated the population estimate (N_{best}) of North Atlantic right whales from 368 to 338 and annual mortality and serious injury increased from 8.1 to 31.2. This large increase in annual serious injury/mortality is a result of NMFS including undetected annual mortality and serious injury in the total annual serious injury/mortality, which had not been previously included in the SARs. The population estimate is slightly lower than the North Atlantic Right Whale Consortium's 2022 Report Card, which identifies the population estimate as 340 individuals (Pettis *et al.*, 2023). NMFS has determined that neither this nor any other new information affects which species or stocks have the potential to be affected or any other pertinent information in the Description of the Marine Mammals in the Area of Specified Activities contained in the supporting documents for the initial IHA.

Potential Effects on Marine Mammals and Their Habitat

A description of the potential effects of the specified activity on marine mammals and their habitat for the activities for which take is proposed here may be found in the **Federal Register** notice of the proposed IHA for the initial authorization proposed (87 FR 52515, August 26, 2022). NMFS has reviewed information on relevant Unusual Mortality Events, the 2022 SARs, and other scientific literature and data, and preliminarily determined that there is no new information that affects our initial analysis of impacts on marine mammals and their habitat.

Estimated Take

A detailed description of the methods and inputs used to estimate take for the specified activity are found in the notices of the proposed (87 FR 52515, August 26, 2022) and issued (87 FR 61575, October 12, 2022) IHAs for the initial authorization. Specifically, the acoustic sources and levels, survey days, and marine mammal density applicable to this authorization remain unchanged from the initial IHA. Similarly, the stocks taken, methods of take and type of take (*i.e.*, Level B harassment in the form of behavioral disturbance) remain unchanged from the initial IHA.

As was done in the initial IHA, Orsted requested a deviation from the calculated take for some species given to account for group size or observations during surveys in the surrounding area. Other than in the instances described below, Orsted's requested take matches their initial IHA. Orsted's Renewal IHA request references new data sources to inform group sizes for humpback whale (collected under the Northeast Projects IHA (87 FR 13975, March 11, 2022)), minke whale (Kenney and Vigness-Raposa, 2010); and Risso's dolphin (Barkaszi and Kelly, 2019). When these group size data were considered, the takes requested by Orsted for these species in their application were equal to or less than that authorized under the initial IHA. However, NMFS proposes to authorize the same number of incidental takes for all species as the initial

IHA as the activities are identical and NMFS considers the data sources used in the initial IHA the best scientific information available.

During consideration of the Renewal IHA request, a typographical error in the proposed and notice of issuance **Federal Register** publications was identified that stated 17 pilot whales were authorized for take when 52 were requested and authorized within the IHA (as stated in the initial IHA application and issued IHA). The number of takes included in the Renewal IHA application and within this proposed Renewal IHA is 52, which equates to 0.13 percent of the population abundance. Lastly, the stock abundance amounts used for the initial IHA were from the 2021 SARs (Hayes *et al.*, 2022), the most recent available at the time of publication; the abundance amounts used for this proposed Renewal IHA are the final 2022 SARs (Hayes *et al.*, 2023).

Table 1 -- Initial IHA Take Authorized and Renewal IHA Proposed Take by Level B Harassment¹

Species	Population Abundance ²	Take authorized initial IHA	Requested proposed take Renewal IHA	NMFS proposed take Renewal IHA ³	Percent of Population for Renewal IHA
North Atlantic right whale ⁴	338	17	16	17	5.03
Humpback whale	1,396	34	19	34	2.44
Fin whale	6,802	14	14	14	0.21
Sei whale	6,292	3	3	3	0.05
Minke whale	21,968	13	9	13	0.06
Sperm whale	4,349	2	2	2	0.05
Long-finned Pilot whale ⁵	39,215	52	52	52	0.13
Bottlenose dolphin ⁶	62,851	139	139	139	0.22
Common Dolphin	172,974	6,000	6,000	6,000	3.47
Atlantic white-sided dolphin	93,233	210	206	210	0.23
Atlantic spotted dolphin	39,921	29	29	29	0.07

Risso's dolphin	35,215	30	30	30	0.09
Striped dolphin	67,036	20	20	20	0.03
Harbor porpoise	95,543	287	279	287	0.30
Gray seal	27,300	118	116	118	0.43
Harbor seal	61,336	118	116	118	<0.01

1- No take by Level A harassment is anticipated nor proposed to be authorized.

2- Final 2022 SARs (Hayes et al., 2023). At the time of the issuance of the initial IHA, the 2021 SARs were used as the best available science. This table utilizes the 2022 SARs abundance numbers. The only species where the abundance number changed between the initial IHA and this proposed renewal was the North Atlantic right whale.

3- While Orsted adjusted their requested take numbers for some species based on 10 less survey days or by utilizing a different data source, NMFS proposes to authorize the same amount of take as the initial IHA; as previously described.

4- The SARs stock abundance number at the time of issuance for the initial IHA was 368. The percent of population affected under the initial IHA was 4.62 percent. While the total number of proposed takes remains the same between the initial IHA and this proposed renewal, due to the decrease in the population abundance to 338 (2022 SARs), the percent of the population affected would increase slightly to 5.03 percent.

5- While the original Federal Register publications for the initial IHA contained a typo of 17 takes by Level B harassment instead of the 52 requested and eventually authorized, the percent abundance affected provided in those publications was correct (0.13 percent) as that value had been correctly calculated using 52. Therefore, as the population abundance remains unchanged from the initial IHA, the correction in this proposed renewal notice of 17 to 52 does not change the percent of the population proposed to be affected (0.13 percent).

6- Western North Atlantic, Offshore stock.

Description of Mitigation, Monitoring and Reporting Measures

The mitigation, monitoring, and reporting measures included as requirements in this authorization are identical to those included in the **Federal Register** notice announcing the issuance of the initial IHA (87 FR 61575, October 12, 2022), and the discussion of the least practicable adverse impact determination included in that document remains applicable and accurate. All mitigation, monitoring, and reporting measures in the initial IHA are identical in the Renewal IHA and summarized below.

- *Ramp-up*: A ramp-up procedure would be used for geophysical survey equipment capable of adjusting energy levels at the start or re-start of survey activities;
- *Protected Species Observers*: A minimum of one NMFS-approved Protected Species Observer (PSO) must be on duty and conducting visual observations at all times during daylight hours (*i.e.*, from 30 minutes prior to sunrise through 30 minutes following sunset). Two PSOs will be on watch during nighttime operations;

- *Pre-Operation Clearance Protocols:* Prior to initiating HRG survey activities, Orsted would implement a 30-minute pre-operation clearance period. If any marine mammals are detected within the Exclusion Zones prior to or during ramp-up, the HRG equipment would be shut down (as described below);
- *Shutdown Zones:* If an HRG source is active and a marine mammal is observed within or entering a relevant shutdown zone, an immediate shutdown of the HRG survey equipment would be required. Note this shutdown requirement would be waived for certain genera of small delphinids and pinnipeds;
- *Vessel strike avoidance measures:* Separation distances for large whales (500 meter (m) North Atlantic right whales and other ESA-listed marine mammals; 100 m for all other non-ESA listed baleen whales; 50 m all other marine mammals); restricted vessel speeds and operational maneuvers; and
- *Reporting:* Orsted will submit a marine mammal report within 90 days following completion of the surveys.

Comments and Responses

A notice of NMFS' proposal to issue a Renewal IHA to Orsted was published in the **Federal Register** on September 11, 2023 (88 FR 62337). That notice either described or referenced descriptions of Orsted's activity, the marine mammal species that may be affected by the activity, the anticipated effects on marine mammals and their habitat, estimated amount and manner of take, and proposed mitigation, monitoring and reporting measures. In that notice, we requested public input on the request for authorization described therein, our analyses, the proposed authorization, and any other aspect of the notice of the proposed IHA renewal and requested that interested persons submit relevant information, suggestions, and comments. That proposed notice was available for a 15-day public comment period.

NMFS received a total of 17 public comment letters from 13 private citizens and 4 non-governmental organizations. The comments and our responses are summarized below.

Most comments received expressed general opposition to issuance of the IHA or to the underlying associated activities. We reiterate here that NMFS' proposed action concerns only the authorization of marine mammal take incidental to the planned surveys—NMFS' authority under the MMPA does not extend to the surveys themselves or to wind energy development more generally. Many comments received requested that NMFS not issue any IHAs related to wind energy development and/or expressed opposition for wind energy development generally without providing information relevant to NMFS' decision. We do not specifically address comments expressing general opposition to activities related to wind energy development or respond to comments that are out of scope of the proposed Renewal IHA (88 FR 62337, September 11, 2023), such as comments on other Federal agency processes and activities not planned under this IHA.

All substantive comments and NMFS' responses are provided below, and all comment letters are available online at <https://www.fisheries.noaa.gov/action/incidental-take-authorization-orsted-wind-power-north-america-llc-marine-site-0>.

Please review the comment letters for full details regarding the comments and associated rationale.

Comment 1: NMFS lacked adequate analysis of cumulative impacts (*i.e.*, effects) to marine mammals and should conduct an Environmental Impact Statement (EIS).

Response: Neither the MMPA nor NMFS' codified implementing regulations require consideration of other unrelated activities and their impacts on marine mammal populations. The preamble for NMFS' implementing regulations (54 FR 40338, September 29, 1989) states in response to comments that the impacts from other past and

ongoing anthropogenic activities are to be incorporated into the negligible impact analysis via their impacts on the baseline. Consistent with that direction, NMFS has factored into its negligible impact analysis the impacts of other past and ongoing anthropogenic activities via their impacts on the baseline (*e.g.*, as reflected in the density, distribution and status of the species, population size and growth rate, and other relevant stressors). The 1989 final rule for the MMPA implementing regulations also addressed public comments regarding cumulative effects from future, unrelated activities. There, NMFS stated that such effects are not considered in making findings under MMPA section 101(a)(5) concerning negligible impact. In this case, this Renewal IHA, as well as other IHAs currently in effect or proposed within the specified geographic region, are appropriately considered an unrelated activity relative to the others. The IHAs are unrelated in the sense that they are discrete actions under section 101(a)(5)(D), issued to discrete applicants.

Section 101(a)(5)(D) of the MMPA requires NMFS to make a determination that the take incidental to a “specified activity” will have a negligible impact on the affected species or stocks of marine mammals. NMFS' implementing regulations 50 CFR 216.104(a)(1) require applicants to include in their request a detailed description of the specified activity or class of activities that can be expected to result in incidental taking of marine mammals. Thus, the “specified activity” for which incidental take coverage is being sought under section 101(a)(5)(D) is generally defined and described by the applicant. Here, Orsted was the applicant for the Renewal IHA, and we are responding to the specified activity as described in that application and making the necessary findings on that basis.

Through the response to public comments in the 1989 implementing regulations, NMFS also indicated (1) that we would consider cumulative effects that are reasonably foreseeable when preparing a National Environmental Policy Act (NEPA) analysis, and

(2) that reasonably foreseeable cumulative effects would also be considered under section 7 of the Endangered Species Act (ESA) for ESA-listed species, as appropriate.

Accordingly, NMFS has written Environmental Assessments (EA) that addressed cumulative impacts related to substantially similar activities, in similar locations (*e.g.*, the 2019 Avangrid EA for survey activities offshore North Carolina and Virginia; the 2017 Ocean Wind, LLC EA for site characterization surveys off New Jersey; and the 2018 Deepwater Wind EA for survey activities offshore Delaware, Massachusetts, and Rhode Island). Cumulative impacts regarding issuance of IHAs for site characterization survey activities such as those planned by Orsted have been adequately addressed under NEPA in prior environmental analyses that support NMFS' determination that this action is appropriately categorically excluded from further NEPA analysis. NMFS independently evaluated the use of a categorical exclusion (CE) for issuance of Orsted's IHA, which included consideration of extraordinary circumstances.

Separately, the cumulative effects of substantially similar activities in the northwest Atlantic Ocean have been analyzed in the past under section 7 of the ESA when NMFS has engaged in formal intra-agency consultation, such as the 2013 programmatic Biological Opinion for BOEM Lease and Site Assessment Rhode Island, Massachusetts, New York, and New Jersey Wind Energy Areas (<https://repository.library.noaa.gov/view/noaa/29291>). Analyzed activities include those for which NMFS issued previous IHAs (82 FR 31562, July 7, 2017; 85 FR 21198, April 16, 2020; 86 FR 26465, May 10, 2021), which are similar to those planned by Orsted under this current Renewal IHA request. This Biological Opinion determined that NMFS' issuance of IHAs for site characterization survey activities associated with leasing, individually and cumulatively, are not likely to adversely affect listed marine mammals. NMFS notes that, while issuance of this IHA is covered under a different consultation, this BiOp remains valid.

Comment 2: NMFS' proposed mitigation measures are beneficial but not reliable, "practical" but not effective. The mitigation measurements are not clearly defined and the monitoring measures are insufficient to ensure compliance with the IHA. Lastly, the IHA must include requirements to ensure the least practicable impact on marine mammal species or stocks and their habitats in and around the project site and include the use of effective reactive restrictions that are triggered by detection of protected species before or during site characterization activities.

Response: NMFS disagrees that the mitigation and associated monitoring measures are insufficient (*e.g.*, not reliable or effective) to affect the least practicable adverse impact on the affected species and stocks. NMFS notes that the commenters did not provide specific recommendations on the measures to address their concerns on effectiveness for NMFS to consider. In practice, NMFS agrees that the IHA should include conditions for the survey activities that will first avoid adverse effects in and around the survey site, where practicable, and then minimize the effects that cannot be avoided. NMFS has determined that the IHA meets this requirement to effect the least practicable adverse impact. All mitigation measures stated in the issued IHA, which are the same for the Renewal IHA, are considered practicable. NMFS works with each ITA applicant, including Orsted, to ensure that project-specific mitigation measures are practicable in real-world conditions. NMFS does not agree that additional wording is necessary within the IHA to further describe the measure requirements and implementation. If NMFS determines during the effective period of the IHA that the prescribed measures are likely not or are not effecting the least practicable adverse impact on the affected species or stocks and their habitat, NMFS may modify, suspend, or revoke the IHA.

As part of the analysis for all marine site characterization survey IHAs, including this Renewal IHA, NMFS evaluated the effects expected as a result of the specified

activity, made the necessary findings, and prescribed mitigation requirements sufficient to achieve the least practicable adverse impact on the affected species and stocks of marine mammals. There are several reactive mitigation measures, such as shutdown requirements, described in the **Federal Register** notice of the proposed initial IHA (87 FR 52515, August 26, 2022), and which are included in the final Renewal IHA, including the stipulation that geophysical survey equipment must be immediately shut down if any marine mammal is observed within or entering the relevant exclusion zone while geophysical survey equipment is operational. In addition, clearance zones are required and a pre-start clearance period must be implemented prior to ramp-up of specified HRG equipment. During this period, clearance zones will be monitored by the PSOs, using the appropriate visual technology. Ramp-up may not be initiated if any marine mammal(s) is within its respective clearance zone. If a marine mammal is observed within a clearance zone during the pre-start clearance period, ramp-up may not begin until the animal(s) has been observed exiting its respective exclusion zone or until an additional time period has elapsed with no further sighting. If the acoustic source is shut down for reasons other than mitigation (*e.g.*, mechanical difficulty) for less than 30 minutes, it may be activated again without ramp-up if PSOs have maintained constant observation and no detections of any marine mammal have occurred within the respective exclusion zones.

NMFS reviews required reporting by authorization holders, which includes data from the independent PSOs and uses the information to evaluate the mitigation measure effectiveness and ensure compliance with the measures described in the issued IHA. Additionally, the mitigation measures included in the Renewal IHA are not unique, and data from prior IHAs support the effectiveness of these mitigation measures. NMFS finds the level of reporting currently required is sufficient for managing the Renewal IHA and monitoring the affected stocks of marine mammals.

Comment 3: NMFS uses complex formulas for estimated take and zone of influence (*i.e.*, ensonified area) which are flawed and inappropriately applied. The root mean square (RMS) 160 dB threshold is outdated.

Response: NMFS disagrees with the commenter and note the commenter did not provide additional scientific information for NMFS to consider. NMFS' estimated take analysis is based on the best scientific information available. As described in the notice of proposed initial IHA, the area of water ensonified ($(\text{Distance}/\text{day} \times 2r) + \pi r^2$) is a representation of the maximum extent of the ensonified area around a sound source over a 24-hr period. “r” is the linear distance from the source to the isopleth for the Level B harassment threshold. The distance to this threshold was calculated using a simple model of sound propagation loss at or above the rms 160 (decibel) dB threshold, which accounts for the loss of sound energy over increasing range. NMFS acknowledges that the 160-dB rms step-function approach is simplistic and that an approach reflecting a more complex probabilistic function may more effectively represent the known variation in responses at different levels due to differences in the receivers, the context of the exposure, and other factors. However, we recognize the potential for Level B harassment at exposures to received levels below 160 dB rms in addition to the potential that animals exposed to received levels above 160 dB rms will not respond in ways constituting behavioral harassment. Overall, there is a lack of scientific consensus regarding what criteria might be more appropriate. Defining sound levels that disrupt behavioral patterns is difficult because responses depend on the context in which the animal receives the sound, including an animal’s behavioral mode when it hears sounds (*e.g.*, feeding, resting, or migrating), prior experience, and biological factors (*e.g.*, age and sex). Other contextual factors, such as signal characteristics, distance from the source, and signal to noise ratio, may also help determine response to a given received level of sound. Therefore, levels at which responses occur are not necessarily consistent and can be difficult to predict

(Southall *et al.*, 2007, 2019; Ellison *et al.*, 2012; Bain and Williams, 2006; Gomez *et al.*, 2016). Use of the 160-dB threshold allows for a simple quantitative estimate of take while we can qualitatively address the variation in responses across different received levels in our discussion and analysis.

NMFS has determined that spherical spreading is the most appropriate form of propagation loss for these surveys and has relied on this approach for past IHAs with similar equipment, locations, and depths. Please refer back to the Garden State HRG IHA (83 FR 14417, April 4, 2018) and the 2019 Skipjack HRG IHA (84 FR 51118, September 27, 2019) for examples. Prior to the issuance of these IHAs (approximately 2018 and older), NMFS typically relied upon practical spreading for these types of survey activities. However, as additional scientific evidence became available, including numerous sound source verification reports, NMFS determined that this approach was inappropriately conservative and, since that time, as consistently used spherical spreading. Furthermore, NMFS' User Spreadsheet tool assumes a "safe distance" methodology for mobile sources where propagation loss is spherical spreading (20LogR) (https://media.fisheries.noaa.gov/2020-12/User_Manual%20_DEC_2020_508.pdf?null), and NMFS calculator tool for estimating isopleths to Level B harassment thresholds also incorporates the use of spherical spreading.

As described in the notice for the proposed initial IHA (87 FR 52515, August 26, 2022), NMFS estimate the amount of take through a simple formula (Estimated take = species density \times ZOI \times # of survey days). For the initial and Renewal IHAs, NMFS relied upon the best available scientific information in assessing the likelihood of occurrence for all potentially impacted marine mammal species, using Habitat-based density models produced by the Duke University Marine Geospatial Ecology Laboratory (Roberts *et al.*, 2016b, 2017, 2018, 2021) which represent the best available information regarding marine mammal densities in the survey area. Density data for all taxa are

available for 10 km x 10 km grid cells over the entire survey area and, for most species (including North Atlantic right whale), are available for each of 12 months. NMFS believes that this approach to use the density information to estimate take is appropriate. Once the density per species in the project area were obtained, the ZOI and number of days of possible activity resulting in ensonified waters were multiplied. In some instances, the resulting estimated take is less than one group size and the take is increased to account for such (as described in the proposed initial and Renewal IHA notices). This creates a sound approach to calculate the number of species possibly affected by the proposed activities. A description on what numbers were used in the calculations for the Renewal IHA can be found in the proposed IHA in the **Federal Register** (88 FR 62337, September 11, 2023).

Comment 4: The planned activities could result in death or serious injury of marine mammals. Additionally, the increased boat traffic and sound from the acoustic sources for profiling the ocean floor could result in more than Level B harassment (*e.g.*, death or serious injury). The IHA must include a vessel traffic plan to minimize the effects of vessels on marine mammals.

Response: NMFS emphasizes that there is no credible scientific evidence available suggesting that mortality and/or serious injury is a potential outcome of the planned survey activity. Additionally, NMFS cannot authorize mortality or serious injury via an IHA, and such taking is prohibited under the IHA. Moreover, the commenter did not provide additional scientific information for NMFS to consider.

NMFS has carefully reviewed the best available scientific information in assessing impacts to marine mammals and determined that the surveys have the potential to impact marine mammals through behavioral effects and auditory masking. The best available science indicates that Level B harassment, or disruption of behavioral patterns, may occur as a result of Orsted's specified activities. No Level A harassment is expected

to result, even in the absence of mitigation, given the characteristics of the sources planned for use. This is additionally supported by the required mitigation and very small estimated Level A harassment zones described in the initial IHA **Federal Register** notice (87 FR 61575, October 12, 2022) and carried through to the Renewal IHA (88 FR 62337, September 11, 2023). NMFS considers the potential for Level A harassment for any species to be discountable.

We also refer to the Greater Atlantic Regional Fisheries Office (GARFO) 2021 Programmatic Consultation, which finds that these survey activities are in general not likely to adversely affect ESA-listed marine mammal species (*i.e.*, GARFO's analysis conducted pursuant to the ESA finds that marine mammals are not likely to be taken at all (as that term is defined under the ESA), much less be taken by serious injury or mortality). That document is found at <https://www.fisheries.noaa.gov/new-england-mid-atlantic/consultations/section-7-take-reporting-programmatics-greater-atlantic#offshore-wind-site-assessment-and-site-characterization-activities-programmatic-consultation>.

Orsted did not request authorization for take incidental to vessel strike during Orsted's marine site characterization survey. Nevertheless, NMFS analyzed the potential for vessel strikes to occur during the survey, and determined that the potential for vessel strike is so low as to be discountable. NMFS takes seriously the risk of vessel strike and has prescribed measures sufficient to avoid the potential for vessel strike to the extent practicable. NMFS has required these measures despite a very low likelihood of vessel strike; vessels associated with the survey activity will add a discountable amount of vessel traffic to the specific geographic region and, furthermore, vessels towing survey gear travel at very slow speeds (*i.e.*, roughly 4-5 knots). Condition 4(g) in the IHA contains a suite of non-discretionary requirements pertaining to vessel strike avoidance, including vessel operation protocols and monitoring. To date, NMFS is not aware of any

site characterization vessel from surveys reporting a vessel strike within the United States.

Comment 5: NMFS should deny the proposed project and/or postpone any offshore wind (OSW) activities until NMFS determines effects of all OSW activities on marine mammals in the region and determines that the recent whale deaths are not related to OSW activities. Similarly, some commenters provided general concerns regarding recent whale stranding events on the Atlantic Coast, including speculation that the strandings may be related to wind energy development-related activities.

Response: NMFS authorizes take of marine mammals incidental to marine site characterization surveys but does not authorize the surveys themselves. Therefore, while NMFS has the authority to modify, suspend, or revoke an IHA if the IHA holder fails to abide by the conditions prescribed therein (including, but not limited to, failure to comply with monitoring or reporting requirements), or if NMFS determines that (1) the authorized taking is having or is likely to have more than a negligible impact on the species or stocks of affected marine mammals, or (2) the prescribed measures are likely not or are not effecting the least practicable adverse impact on the affected species or stocks and their habitat, it is not within NMFS' jurisdiction to impose a moratorium on offshore wind development or to require surveys to cease on the basis of unsupported speculation. The MMPA requires us to evaluate the effects of the specified activities in consideration of the best scientific evidence available and, if the necessary findings are made, to issue the requested incidental take authorization. The MMPA does not allow us to delay decision making in hopes that additional information may become available in the future.

NMFS reiterates that there is no evidence that noise resulting from offshore wind development-related site characterization surveys could potentially cause marine mammal stranding, and there is no evidence linking recent large whale mortalities and

currently ongoing surveys. The commenters offer no such evidence. NMFS will continue to gather data to help us determine the cause of death for these stranded whales. We note the Marine Mammal Commission's recent statement: "There continues to be no evidence to link these large whale strandings to offshore wind energy development, including no evidence to link them to sound emitted during wind development-related site characterization surveys, known as HRG surveys. Although HRG surveys have been occurring off New England and the mid-Atlantic coast, HRG devices have never been implicated or causatively-associated with baleen whale strandings." (Marine Mammal Commission Newsletter, Spring 2023).

There is an ongoing Unusual Mortality Event (UME) for humpback whales along the Atlantic coast from Maine to Florida, which includes animals stranded since 2016. Partial or full necropsy examinations were conducted on approximately half of the whales. Necropsies were not conducted on other carcasses because they were too decomposed, not brought to land, or stranded on protected lands (*e.g.*, national and state parks) with limited or no access. Of the whales examined (roughly 90), about 40 percent had evidence of human interaction, either vessel strike or entanglement. Vessel strikes and entanglement in fishing gear are the greatest human threats to large whales. The remaining 50 necropsied whales either had an undetermined cause of death (due to a limited examination or decomposition of the carcass) or had other causes of death including parasite-caused organ damage and starvation.

As discussed herein, HRG sources may behaviorally disturb marine mammals (*e.g.*, avoidance of the immediate area). These HRG surveys are very different from seismic airguns used in oil and gas surveys or tactical military sonar. They produce much smaller impact zones because, in general, they have lower source levels and produce output at higher frequencies. The area within which HRG sources might behaviorally disturb a marine mammal is orders of magnitude smaller than the impact areas for

seismic airguns or military sonar. Any marine mammal exposure would be at significantly lower levels and shorter duration, which is associated with less severe impacts to marine mammals.

Comment 6: The number of takes NMFS proposed to authorize for North Atlantic right whale is too high, the data used to determine the level of take was not based on the best available science and should have included Level A harassment. In addition, NMFS should delay or deny issuing the Renewal IHA until the results from new North Atlantic right whale research is published and fully analyzed.

Response: NMFS disagrees that the number of takes by Level B harassment is high and emphasizes its determination that the authorized takes of North Atlantic right whales represents small numbers of marine mammals relative to the affected stock abundances (*i.e.*, 5.03 percent; NMFS considers that one-third of the most appropriate population abundance number - as compared with the assumed number of individuals taken - is an appropriate limit with regard to “small numbers”). NMFS refers to our response on estimating take in Comment 3, which referenced the process that resulted in the 5.03 percent takes by Level B harassment of North Atlantic right whale. NMFS reiterates that there is no credible scientific evidence available suggesting that Level A harassment, mortality, and/or serious injury is a potential outcome of the planned survey activity, as further discussed in our response to Comment 4.

The MMPA specifies that the “best available data” must be used, which does not always mean the most recent. We referenced the best available data for our effects analysis (*i.e.*, impact assessment) available at the time of publication. NMFS relied upon the best scientific evidence available, including, but not limited to, the 2022 SAR (Hayes *et al.*, 2023), scientific literature, and Duke University’s density model (Roberts *et al.*, 2022), in analyzing the impacts of this project’s specified activities on marine mammals.

The commenter did not provide additional scientific information for NMFS to consider.

NMFS reiterates our response on the use of best available science in Comment 4.

NMFS disagrees that a delay or denial of the Renewal IHA is necessary until new scientific information is available. The MMPA requires us to evaluate the effects of the specified activities in consideration of the best scientific evidence available and, if the necessary findings are made, to issue the requested incidental take authorization. The MMPA does not allow us to delay decision making in hopes that additional information may become available in the future. If new information, which NMFS considers to be the best available scientific information, demonstrates that the authorized activity is having a non-negligible impact on a marine mammal stock, NMFS must modify, suspend, or revoke the IHA.

Comment 7: NMFS must reissue the Renewal IHA notice and provide a full 30-day comment period to ensure adequate public engagement. The 15-day public comment period for IHA renewals is a violation of the MMPA, which requires a 30-day public comment period for all IHAs, including reauthorizations. NMFS falsely asserts that if it includes an opportunity to comment on a renewal at the time of the proposed IHA, the original comment period will count towards the 30-day requirement. The text of the MMPA, however, does not explicitly or implicitly recognize an expedited renewal process with a 15-day comment period for IHAs even if NMFS determines the activities are nearly identical.

Response: NMFS' IHA renewal process meets all statutory requirements. In prior responses to comments about IHA renewals (*e.g.*, 84 FR 52464, October 2, 2019 and 85 FR 53342, August 28, 2020), NMFS explained the IHA renewal process is consistent with the statutory requirements contained in section 101(a)(5)(D) of the MMPA and further, promotes NMFS' goals of improving conservation of marine mammals and

increasing efficiency in the MMPA compliance process. Therefore, NMFS disagrees with this comment.

All IHAs issued, whether an initial IHA or a renewal, are valid for a period of not more than 1 year. The public has 30 days to comment on proposed IHAs, with a cumulative total of 45 days for IHA renewals. The notice of the proposed IHA published in the **Federal Register** (87 FR 52515, August 26, 2022) provided a 30-day public comment period and made clear that NMFS was seeking comment on the proposed IHA and the potential issuance of a renewal for this survey. As detailed in the **Federal Register** notice for the proposed IHA and on the agency's website, eligibility for renewal is determined on a case-by-case basis, renewals are subject to an additional 15-day public comment period, and the renewal is limited to up to another year of identical or nearly identical activities as described in the Description of Proposed Activities section of the proposed IHA notice or the activities described in the Description of Proposed Activities section of the proposed IHA notice would not be completed by the time the IHA expires and a renewal would allow for completion of the activities beyond that described in the Dates and Duration section of this notice. NMFS' analysis of the anticipated impacts on marine mammals caused by the applicant's activities covers both the initial IHA period and the possibility of a 1-year renewal. Therefore, a member of the public considering commenting on a proposed initial IHA also knows exactly what activities (or subset of activities) would be included in a proposed renewal IHA, the potential impacts of those activities, the maximum amount and type of take that could be caused by those activities, the mitigation and monitoring measures that would be required, and the basis for the agency's negligible impact determinations, least practicable adverse impact findings, small numbers findings, and (if applicable) the no unmitigable adverse impact on subsistence use finding—all the information needed to provide complete and meaningful comments on a possible renewal at the time of considering the proposed initial IHA.

Reviewers have the information needed to meaningfully comment on both the immediate proposed IHA and a possible 1-year renewal, should the IHA holder choose to request one.

While there would be additional documents submitted with a renewal request, for a qualifying renewal these would be limited to documentation that NMFS would make available and use to verify that the activities are identical to those in the initial IHA, are nearly identical such that the changes would have either no effect on impacts to marine mammals or decrease those impacts, or are a subset of activities already analyzed and authorized but not completed under the initial IHA. NMFS would also need to confirm, among other things, that the activities would occur in the same location; involve the same species and stocks; provide for continuation of the same mitigation, monitoring, and reporting requirements; and that no new information has been received that would alter the prior analysis. The renewal request would also contain a preliminary monitoring report, if work had commenced, in order to verify that effects from the activities do not indicate impacts of a scale or nature not previously analyzed. The additional 15-day public comment period, which includes NMFS' direct notice to anyone who commented on the proposed initial IHA, provides the public an opportunity to review these few documents, provide any additional pertinent information, and comment on whether they think the criteria for a renewal have been met. Combined together, the 30-day public comment period on the initial IHA and the additional 15-day public comment period on the renewal of the same or nearly identical activities, provides the public with a total of 45 days to comment on the potential for renewal of the IHA.

In addition to the IHA renewal process being consistent with all requirements under section 101(a)(5)(D) of the MMPA, it is also consistent with Congress' intent for issuance of IHAs to the extent reflected in statements in the legislative history of the MMPA. Through the description of the process and express invitation to comment on

specific potential renewals in the Request for Public Comments section of each proposed IHA, the description of the process on NMFS' website, further elaboration on the process through responses to comments such as these, posting of substantive documents on the agency's website, and provision of 30 or 45 days for public review and comment on all proposed initial IHAs and renewals respectively, NMFS has ensured that the public is "invited and encouraged to participate fully in the agency's decision-making process," as Congress intended.

Comment 8: NMFS must use the best available science, especially for North Atlantic right whale, including population estimates, recent habitat usage patterns for the study area and up to date seasonality information that may differ from the March-April and November-December migration periods cited in the notice. NMFS has not fully considered both the use of the area and the effects of both acute and chronic stressors on the health and fitness of North Atlantic right whales, as disturbance responses in North Atlantic right whales could lead to chronic stress or habitat displacement, leading to an overall decline in their health and fitness.

Response: While NMFS agrees that the best available science must be used for assessing North Atlantic right whale abundance estimates, we disagree that the provided New England Aquarium's (*i.e.*, North Atlantic Right Whale Report Card) 2022 estimate of 340 referenced represents the most recent and best available estimate for North Atlantic right whale abundance. Rather the abundance estimate (338) in the 2022 Stock Assessment Reports (SARs; <https://www.fisheries.noaa.gov/national/marine-mammal-protection/marine-mammal-stock-assessment-reports>)), which was used in the proposed Renewal IHA, provides the most recent and best available estimate. Furthermore, NMFS notes that the SARs are peer reviewed by statutorily established scientific review groups prior to being finalized and published and that the North Atlantic Right Whale Report Card (Pettis *et al.*, 2022) does not undertake this process.

NMFS further notes that the commenters seem to be conflating the phrase “best available data” with “the most recent data”. The MMPA specifies that the “best available data” must be used, which does not always mean the most recent. We referenced the best available North Atlantic right whale abundance estimate of 338 from the 2022 SARs as NMFS' determination of the best available data that we relied on in our analysis.

NMFS considered the best available science regarding both recent habitat usage patterns for the study area and up-to-date seasonality information in the notice of the proposed IHA, including consideration of existing Biologically Important Areas (BIAs) and densities provided by Roberts *et al.* (2022). While the commenter has suggested that NMFS consider best available information for recent habitat usage patterns and seasonality, it has not offered any additional information for NMFS to consider.

Lastly, any impacts to marine mammals are expected to be temporary and minor given the relative size of the survey area compared to the overall migratory BIA. The survey area is extremely small (encompassing a small area offshore New England) compared to the size of the North Atlantic right whale migratory BIA (269,448 km²), which spans from Florida to Maine. Because of this, and in context of the minor, low-level nature of the impacts expected to result from the planned survey, such impacts are not expected to result in disruption to biologically important behaviors.

NMFS agrees that both acute and chronic stressors are of concern for North Atlantic right whale conservation and recovery. We recognize that acute stress from acoustic exposure is one potential impact of these surveys, and that chronic stress can have fitness, socializing, feeding impacts at the population-level scale. NMFS has carefully reviewed the best available scientific information in assessing impacts to marine mammals, and recognizes that the surveys have the potential to impact marine mammals through behavioral effects, stress responses, and auditory masking. However, NMFS does not expect that the generally short-term, intermittent, and transitory marine site

characterization survey activities planned will create conditions of acute or chronic acoustic exposure leading to long-term physiological stress responses in marine mammals. Because North Atlantic right whales generally use this area for migration, any potential impacts from these surveys are expected to be brief. In context of these expected low-level impacts, which are not expected to meaningfully affect important behavior, we also refer again to the large size of the migratory corridor compared with the survey area. Thus, the transitory nature of North Atlantic right whales at this location means it is unlikely for any exposure to cause chronic effects, as the planned survey area and ensonified zones are much smaller than the overall migratory corridor. As such, NMFS does not expect acute or cumulative stress to be a detrimental factor to North Atlantic right whales from Orsted's described survey activities. NMFS has also prescribed a robust suite of mitigation measures, including extended distance shutdowns for North Atlantic right whales that are expected to further reduce the duration and intensity of acoustic exposure while limiting the potential severity of any possible behavioral disruption.

Lastly, NMFS disagrees that the effects of Orsted's survey may contribute to stunted growth rates as suggested by a commenter. The activities associated with Orsted's survey are outside the scope of activities described in the Steward *et al.* (2021) paper and NMFS does not expect impacts such as these to result from Orsted's described survey activities.

Comment 9: NMFS must make an assessment of which activities, technologies and strategies are truly necessary to achieve site characterization to inform development of the offshore wind projects and which are not critical, asserting that NMFS should prescribe the appropriate survey techniques. NMFS must require that all IHA applicants minimize the impacts of underwater noise to the fullest extent feasible, including through

the use of lower impact technology and methods to minimize adverse effects (*e.g.*, sound levels) from geophysical surveys.

Response: The MMPA requires that an IHA include measures that will affect the least practicable adverse impact on the affected species and stocks and, in practice, NMFS agrees that the IHA should include conditions for the survey activities that will first avoid adverse effects in and around the survey site and then minimize the effects that cannot be avoided. NMFS has determined that the IHA meets this requirement to effect the least practicable adverse impact. As part of the analysis for all marine site characterization survey IHAs, NMFS evaluated the effects expected as a result of the specified activity, made the necessary findings, and prescribed mitigation requirements sufficient to achieve the least practicable adverse impact on the affected species and stocks of marine mammals. It is not within NMFS' purview to make judgments regarding what may be appropriate techniques or technologies for an operator's survey objectives.

Comment 10: NMFS should require all vessels associated with the site characterization activities to carry and use PSOs at all times when underway. During low visibility conditions, the IHA should require PSO monitoring to include infrared (IR) detection devices. NMFS should restrict all vessels of all sizes associated with the proposed survey activities to speeds less than 10 knots (kn) at all times due to the risk of vessel strikes to North Atlantic right whales and other large whales. NMFS should require vessels maintain a separation distance of at least 500 m from North Atlantic right whales at all times.

Response: NMFS notes a requirement to utilize PSOs when specific acoustic sources (impulsive: sparkers; non-impulsive: non-parametric sub-bottom profilers-CHIRPs) are operating, a minimum of one PSO must be on duty, per source vessel, during daylight hours and two PSOs must be on duty, per source vessel, during nighttime hours (*see* Condition 4(a)). In addition, visual observers monitoring the vessel strike

avoidance zone may be third-party observers (*i.e.*, PSOs) or crew members, but crew members responsible for these duties must be provided sufficient training (*see* Condition 4(g)(i)).

NMFS notes a requirement to utilize a thermal (infrared) device during low-light conditions was included in the proposed **Federal Register** Notice of the initial IHA. That requirement is included as a requirement of the issued IHA and the Renewal IHA.

While NMFS acknowledges that vessel strikes can result in injury or mortality, we have analyzed the potential for vessel strike resulting from Orsted's activities and have determined that based on the nature of the activity and the required mitigation measures specific to vessel strike avoidance included in the IHA, potential for vessel strike is so low as to be discountable. The required mitigation measures, all of which were included in the proposed initial IHA and were required in the final IHA (and in this Renewal IHA), include: A requirement that all vessel operators comply with 10 kn (18.5 km/hour) or less speed restrictions in any Seasonal Management Area (SMA), Dynamic Management Area (DMA), or Slow Zone while underway, and check daily for information regarding the establishment of mandatory or voluntary vessel strike avoidance areas (SMAs, DMAs, Slow Zones) and information regarding NARW sighting locations; a requirement that all vessels greater than or equal to 19.8 m in overall length operating from November 1 through April 30 operate at speeds of 10 kn (18.5 km/hour) or less; a requirement that all vessel operators reduce vessel speed to 10 kn (18.5 km/hour) or less when any large whale, any mother/calf pairs, pods, or large assemblages of non-delphinid cetaceans are observed near the vessel; a requirement that all survey vessels maintain a separation distance of 500 m or greater from any ESA-listed whales or other unidentified large marine mammals visible at the surface while underway; a requirement that, if underway, vessels must steer a course away from any sighted ESA-listed whale at 10 kn or less until the 500 m minimum separation distance has been

established; a requirement that, if an ESA-listed whale is sighted in a vessel's path, or within 500 m of an underway vessel, the underway vessel must reduce speed and shift the engine to neutral; a requirement that all vessels underway must maintain a minimum separation distance of 100 m from all non-ESA-listed baleen whales; and a requirement that all vessels underway must, to the maximum extent practicable, attempt to maintain a minimum separation distance of 50 m from all other marine mammals, with an understanding that at times this may not be possible (*e.g.*, for animals that approach the vessel). We have determined that the vessel strike avoidance measures in the IHA are sufficient to ensure the least practicable adverse impact on species or stocks and their habitat. Furthermore, no documented vessel strikes have occurred for any marine site characterization surveys which were issued IHAs from NMFS during the survey activities themselves or while transiting to and from survey sites.

NMFS notes the requirement to maintain a separation distance of at least 500 m from North Atlantic right whales at all times was included in the proposed **Federal Register** Notice and was included as a requirement in the issued IHA (and for the Renewal IH).

Comment 11: The IHA should require all vessels supporting site characterization to be equipped with and using Class A Automatic Identification System (AIS) devices at all times while on the water. Oceana suggested this requirement should apply to all vessels, regardless of size, associated with the survey.

Response: NMFS is generally supportive of the idea that vessels involved with survey activities be equipped with and using Class A Automatic Identification System (devices) at all times while on the water. Given the small isopleths and small numbers of take authorized by this IHA, NMFS does not agree that the benefits of requiring AIS on all vessels associated with the survey activities outweighs and warrants the cost and practicability issues associated with this requirement.

Comment 12: The IHA must include requirements to hold all vessels associated with site characterization surveys accountable to the IHA requirements, including vessels owned by the developer, contractors, employees, and others regardless of ownership, operator, and contract. The comment further states that exceptions and exemptions will create enforcement uncertainty and incentives to evade regulations through reclassification and redesignation. They recommend that NMFS simplify this by requiring all vessels to abide by the same requirements, regardless of size, ownership, function, contract or other specifics.

Response: NMFS notes that the initial and Renewal IHAs authorizes Orsted and its designees to incidentally harass marine mammals under certain conditions. Nevertheless, NMFS has added language to the Renewal IHA to clarify that the IHA conditions apply to those persons Orsted authorizes or funds to conduct activities on its behalf. The initial and Renewal IHAs also require that a copy of the IHA must be in the possession of Orsted, the vessel operators, the lead PSO, and any other relevant designees of Orsted operating under the authority of this IHA. The IHA also states that Orsted must ensure that the vessel operator and other relevant vessel personnel, including the Protected Species Observer (PSO) team, are briefed on all responsibilities, communication procedures, marine mammal monitoring protocols, operational procedures, and IHA requirements prior to the start of survey activity, and when relevant new personnel join the survey operations.

Comment 13: The IHA must include a requirement for all phases of the site characterization to subscribe to the highest level of transparency, including frequent reporting to federal agencies. NMFS should require that Orsted report all visual and acoustic detections of North Atlantic right whales and any dead, injured, or entangled marine mammals to NMFS or the U.S. Coast Guard as soon as possible and no later than the end of the PSO shift. In addition, to foster stakeholder relationships and allow public

engagement and oversight of the permitting, the IHA should require all reports and data to be accessible on a publicly available website.

Response: NMFS notes the reporting requirements were included in the proposed IHA and were carried forward into the issued IHA (*see* Condition 6). As such, Orsted is already required to submit a monitoring report to NMFS within 90 days after completion of survey activities that fully documents the methods and monitoring protocols, summarizes the data recorded during monitoring. PSO datasheets or raw sightings data must also be provided with the draft and final monitoring report; sightings of North Atlantic right whales must be reported to the NMFS Right Whale Sightings Advisory System within two hours of occurrence, when practicable, or no later than 24 hours after occurrence; Orsted must also report North Atlantic right whale sighting to the U.S. Coast Guard. Additionally, Orsted must report any discoveries of injured or dead marine mammals to the NMFS Office of Protected Resources and to the New England/Mid-Atlantic Regional Stranding Coordinator as soon as feasible. This includes entangled animals.

Daily visual and acoustic detections of North Atlantic right whales and other large whale species along the Eastern Seaboard, as well as Slow Zone locations, are publicly available on WhaleMap (<https://whalemap.org/WhaleMap/>). Further, recent acoustic detections of North Atlantic right whales and other large whale species are available to the public on NOAA's Passive Acoustic Cetacean Map website <https://apps-nefsc.fisheries.noaa.gov/pacm/#/narw>. Given the open access to the resources described above, NMFS does not concur that public access to PSO reports is warranted and we have not included this measure in the authorization.

Comment 14: NMFS should require a visual and acoustic clearance zone of at least 1,000 m for North Atlantic right whales during HRG survey activities. If a North Atlantic right whale is observed in the clearance zone then survey activities must cease

(i.e., shut down). If a shutdown cannot occur due to human safety, Orsted must immediately notify NMFS with reasons and explanation for exemption and a summary of the frequency of these exceptions must be publicly available to ensure that these are the exception rather than the norm for the project. When safe to resume, HRG surveys should be required to use a soft start, ramp-up procedure to encourage any nearby marine life to leave the area.

Response: NMFS notes that the 500 m clearance and shutdown zones included in the proposed IHA and carried forward in the issued IHA for North Atlantic right whales exceeds the modeled distance to the largest 160 dB Level B harassment isopleth (141 m during sparker use) by a substantial margin. Commenters did not provide additional scientific information for NMFS to consider to support their recommendation to expand the clearance and shutdown zones. Given that these surveys are relatively low impact and that NMFS has prescribed North Atlantic right whale clearance and shutdown zones that are significantly larger (500 m) than the conservatively estimated largest harassment zone (141 m), NMFS has determined that the 500-m zone size is appropriate.

While the IHA requires that Orsted report when a shutdown occurs and if required mitigation was not implemented, NMFS disagrees that data on when shutdowns do not occur due to safety concerns should be made publicly available because the exemption is due to human safety and is a blanket provision necessary for the safety of the crew and vessels and is not an act of non-compliance with the requirements within the IHA.

NMFS notes the recommendation to require ramp-up is included in the **Federal Register** notice of the proposed IHA (87 FR 52515, August 26, 2022) and the final IHA (87 FR 61575, October 12, 2022), and is required in the Renewal IHA (*see* Condition 4(e)).

Comment 15: In the Renewal application, Orsted proposed lower levels of take for humpback whales, Risso's dolphin, and minke whale than previously authorized in the

initial IHA. NMFS must clarify why the lower take levels, including the use of different group size data, was not used in the Renewal IHA and NMFS is choosing to allow more take than requested. Subsequently, NMFS claimed that the 2020-2021 PSO data for humpback and minke whales is the best scientific evidence available, and the 2022 PSO data collected under 87 FR 13975 (March 11, 2022) is not. PSO synthesis from 2019 is not the best scientific evidence available for Risso's dolphins, but PSO data from 2020-2021 is the best scientific evidence available for humpback and minke whales. Kenney and Vigness-Raposa, for reasons unknown, may be used for Risso's dolphins and not for minke whales.

Response: NMFS utilizes the best available science when analyzing which species may be impacted by an applicant's proposed activities. NMFS proposed to authorize the same number of incidental takes for all species as the initial IHA as the activities are identical and we referenced the activity level and data sources (as the best scientific information available) used in the initial IHA, as explained below.

Orsted's Renewal IHA application requested lower take numbers through a combination of slightly fewer survey day (390 verses 400) and referenced different data sources from the initial IHA to inform group sizes for humpback whale (collected under the Northeast Projects IHA (87 FR 13975, March 11, 2022)), minke whale (Kenney and Vigness-Raposa, 2010); and Risso's dolphin (Barkaszi and Kelly, 2019). Orsted decreased the number of survey days from 400 to 390 based on the assumption that subsidiaries of Orsted will have separate incidental take authorizations for marine site characterization surveys in Lease Areas OCS-A 0486 (Revolution Wind; 88 FR 8996, February 10, 2023) and OCS-A 0487 (Sunrise Wind; 87 FR 79072, January 19, 2023) during the proposed effective period of the Renewal IHA. NMFS proposed to authorize incidental take assuming 400 survey days would be necessary as NMFS has not promulgated final rules for Revolution Wind and Sunrise Wind. As the take requested in

the renewal application assumed 390 days and not the 400, NMFS applied the prior activity levels from the initial IHA to the species average annual density amount (the initial and renewal used Robert *et al.*, 2022) to estimate take (Estimated take = species density \times ZOI \times # of survey days). Therefore, the requested take numbers should be consistent with the amounts previously authorized when only considering the number of survey days.

When the group size data were considered, the takes requested by Orsted for these species in their Renewal IHA application were equal to or less than that authorized under the initial IHA. NMFS assessed the changed data sources and chose the best available science and most conservative route to estimate take when adjusted for group size. NMFS refers to our responses pertaining to the best available science in Comments 6 and 8.

In the Renewal IHA application, Orsted referenced data for minke whale using Kenney and Vigness-Raposa (2010), however, the initial IHA application used draft PSO data from surveys conducted in the project lease areas and export cable routes between May 2020 and December 2021 (Table 13 in the initial IHA application). NMFS disagreed with Orsted's use of Kenney and Vigness-Raposa (2010) as the PSO data previously provided was considered the best scientific information available. The "draft PSO data" was from ongoing site characterization surveys, spanning nearly two years (May 2020 through December 2021), under previous and existing IHAs in the area (13 minke observed within 500 m of an active sound source). The final PSO data referenced in the Renewal IHA application was collected under one IHA (87 FR 13975, March 11, 2022), though not used by Orsted in their take request, was limited to an observation period of 7 month (March through September 2022) and resulted in a mean group size of 1 (Table 2 in the Renewal IHA application). In their Renewal IHA application, Orsted chose to use a group size adjustment of 9 from Kenney and Vigness-Raposa (2010) and not the final PSO data due to the low group size number (1). As the planned activities may occur in

any month of the year, the draft PSO data were over a significantly longer observation period and included year-round PSO data, and to be conservative in estimating the possible level of effect, NMFS chose to utilize the draft PSO data when setting the group size adjustment within the project area for minke (13).

In the Renewal IHA application, Orsted referenced data for humpback whales from PSO data collected in 2022 under 87 FR 13975 (March 11, 2022), however, the initial IHA application used draft PSO data from surveys conducted in the project lease areas and export cable routes between May 2020 and December 2021 (Table 13 in the initial IHA application). As with minke, the draft PSO data was considered the best available science for the group size adjustment (34 observed within 500 m of an active source) as opposed to the final PSO data (mean group size of 2.3; Table 2 in the Renewal IHA application). To be conservative in estimating the possible level of effect, NMFS chose to utilize the draft PSO data due to the longer observation period when setting the group size adjustment within the project area for humpback (34).

In the Renewal IHA application, Orsted referenced data for Risso's dolphin from Barkaszi and Kelly (2019), however, the initial IHA application used Kenney and Vigness-Raposa (2010). NMFS disagrees with the use of Barkaszi and Kelly (2019) as that research is from observations in the Gulf of Mexico and other more geographically appropriate data exists (Kenney and Vigness-Raposa, 2010). Orsted did not use the draft or final PSO data used for minke in their applications; the draft PSO data observed 1 Risso's dolphin within 500 m of an active sound source, the final PSO data collected under 87 FR 13975 had 0 observations (no detections of that species in the PSO records). Due to the lack of observation data on Risso's dolphins through the PSO records, this data source was not appropriate for this particular species and NMFS chose to not use it as the best available science.

The change from 17 to 16 for take by Level B harassment for the North Atlantic right whale was due to a difference in rounding between the initial IHA and Renewal IHA applications. NMFS continued with the previous rounding approach from the initial IHA (17).

Comment 16: Commenters expressed concern regarding ocean noise and the interference it has on whales and other marine mammals' use of echolocation and sonography to communication and travel (*i.e.*, masking).

Response: The commenters did not provide additional scientific information for NMFS to consider. NMFS has carefully reviewed the best available scientific information in assessing impacts to marine mammals and determined that the surveys have the potential to impact marine mammals through behavioral effects and auditory masking. NMFS agrees that noise pollution in marine waters is an issue and is affecting marine mammals, including their ability to communicate when noise reaches certain thresholds. However, NMFS does not expect that the generally short-term, intermittent, and transitory marine site characterization survey activities planned by Orsted will create conditions of acute or chronic acoustic exposure leading to long-term physiological impacts in marine mammals.

Determinations

NMFS has concluded that there is no new information suggesting that our analysis or findings should change from those reached for the initial IHA. This includes consideration of the 2022 SAR estimated abundance of the North Atlantic right whale stock. Specifically, NMFS is proposing to authorize 17 takes of North Atlantic right whales by Level B harassment only, and the impacts resulting from the project's activities are neither reasonably expected nor reasonably likely to adversely affect the stock through effects on annual rates of recruitment or survival. Additionally,

approximately 5 percent of the stock abundance is proposed for take by Level B harassment.

Based on the information and analysis contained here and in the referenced documents, including the consideration of the final 2022 SARs, NMFS has determined the following: (1) the required mitigation measures will effect the least practicable impact on marine mammal species or stocks and their habitat; (2) the authorized takes will have a negligible impact on the affected marine mammal species or stocks; (3) the authorized takes represent small numbers of marine mammals relative to the affected stock abundances; (4) Orsted's activities will not have an unmitigable adverse impact on taking for subsistence purposes as no relevant subsistence uses of marine mammals are implicated by this action; and (5) appropriate monitoring and reporting requirements are included.

National Environmental Policy Act

This action is consistent with categories of activities identified in Categorical Exclusion B4 (incidental take authorizations with no anticipated serious injury or mortality) of the Companion Manual for NOAA Administrative Order 216-6A, which do not individually or cumulatively have the potential for significant impacts on the quality of the human environment and for which we have not identified any extraordinary circumstances that would preclude this categorical exclusion. Accordingly, NMFS determined that the issuance of the initial IHA qualified to be categorically excluded from further NEPA review. NMFS has determined that the application of this categorical exclusion remains appropriate for this Renewal IHA.

Endangered Species Act

Section 7(a)(2) of the Endangered Species Act of 1973 (ESA; 16 U.S.C. 1531 *et seq.*) requires that each Federal agency insure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of any endangered or

threatened species or result in the destruction or adverse modification of designated critical habitat. To ensure ESA compliance for the issuance of IHAs, NMFS consults internally, in this case with the NMFS Greater Atlantic Regional Fisheries Office (GARFO), whenever we propose to authorize take for endangered or threatened species.

NMFS Office of Protected Resources has authorized the incidental take of four species of marine mammals which are listed under the ESA (the North Atlantic right, fin, sei, and sperm whale) and has determined that these activities fall within the scope of activities analyzed in GARFO's programmatic consultation regarding geophysical surveys along the U.S. Atlantic coast in the three Atlantic Renewable Energy Regions (completed June 29, 2021; revised September 2021). The Renewal IHA provides no new information about the effects of the action, nor does it change the extent of effects of the action, or any other basis to require reinitiation of consultation with NMFS GARFO; therefore, the ESA consultation has been satisfied for the initial IHA and remains valid for the Renewal IHA.

Renewal IHA

As a result of these determinations, NMFS has issued a renewal IHA to Orsted for conducting marine site characterization surveys off New York to Massachusetts (Lease Areas OCS-A 0486, 0487, and 0500), effective from October 6, 2023 through October 5, 2024, provided the previously described mitigation, monitoring, and reporting requirements are incorporated.

Dated: September 29, 2023.

Kimberly Damon-Randall,

Director, Office of Protected Resources,

National Marine Fisheries Service.