



Mid-Atlantic Fishery Management Council

800 North State Street, Suite 201, Dover, DE 19901

Phone: 302-674-2331 | FAX: 302-674-5399 | www.mafmc.org

Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: December 2, 2022
To: Chris Moore, Executive Director
From: Julia Beaty, staff
Subject: Offshore Wind Energy Update

The following documents are included behind this tab:

- Staff memo dated 12/2/2022 summarizing presentations on offshore wind energy to be provided during the Council meeting on 12/12/2022
- Comment letter from Seafreeze Ltd. to the Bureau of Ocean Energy Management (BOEM) on the BOEM and NOAA Fisheries North Atlantic Right Whale and Offshore Wind Strategy
 - The following articles were also provided with the Seafreeze comment. These articles are linked below, but are not provided in the briefing book.
 - Daewel, U., Akhtar, N., Christiansen, N. *et al.* Offshore wind farms are projected to impact primary production and bottom water deoxygenation in the North Sea. *Communications Earth & Environment*. **3**, 292 (2022). <https://doi.org/10.1038/s43247-022-00625-0>
 - [Study of North Sea Offshore Wind Farms Shows Change in Marine Ecosystems](#). Seafoodnews.com. November 30, 2022.



Mid-Atlantic Fishery Management Council

800 North State Street, Suite 201, Dover, DE 19901

Phone: 302-674-2331 | FAX: 302-674-5399 | www.mafmc.org

Michael P. Luisi, Chairman | P. Weston Townsend, Vice Chairman

Christopher M. Moore, Ph.D., Executive Director

MEMORANDUM

Date: December 2, 2022
To: Chris Moore, Executive Director
From: Julia Beaty, staff
Subject: Updates on Offshore Wind Energy Development

During the Council's December 2022 meeting, the Council will receive presentations on offshore wind energy development. Topics to be covered are summarized below.

Updates from the Bureau of Ocean Energy Management (BOEM)

Karen Baker, Chief of BOEM's Office of Renewable Energy Programs, will present an update to the Council. Topics to be covered may include but are not limited to the following:

- **Central Atlantic:** BOEM announced Draft Wind Energy Areas for the Central Atlantic on November 16, 2022, with a comment deadline of December 16, 2022. Two virtual public meetings will be held on November 30 at 12:30 p.m. and December 1 at 1:30 p.m. More information is available [here](#).
 - Council staff plan to work with New England Council staff on a joint comment letter. The Council may discuss the content of this letter during their December meeting. The Council provided comments on earlier stages of this process in [December 2021](#) and [June 2022](#).
- **Empire Wind:** BOEM released a Draft Environmental Impact Statement (DEIS) for the Empire Wind project off New York on November 14, 2022. Virtual public meetings will be held on December 7 at 5:00 p.m., December 13 at 5:00 p.m., and December 15 at 1:00 p.m. The public comment period for the DEIS ends January 17, 2023. More information is available [here](#).
 - Council staff plan to work with New England Council staff on a joint comment letter. The Council may discuss the content of this letter during their December meeting. The Council provided comments on earlier stages of the Empire Wind project in [July 2021](#).
- **Coastal Virginia Offshore Wind (CVOW):** BOEM may also publish a DEIS for the CVOW project off Virginia later this month. Additional information will be posted [here](#) once it is available.
 - Council staff plan to work with New England Council staff on a joint comment letter. The Council may discuss the content of this letter during their December meeting. The Council provided comments on earlier stages of the CVOW project in [August 2021](#).

- **Sunrise Wind:** BOEM may also publish a DEIS for the Sunrise Wind project off New York later this month. Additional information will be posted [here](#) once it is available.
 - Council staff plan to work with New England Council staff on a joint comment letter. The Council provided comments on earlier stages of the Sunrise Wind project in [October 2021](#).
- **New England Wind (formerly Vineyard Wind South):** BOEM may also publish a DEIS for the New England Wind project off Massachusetts/Rhode Island later this month. Additional information will be posted [here](#) once it is available.
 - Council staff plan to work with New England Council staff on a joint comment letter. The Council may discuss the content of this letter during their December meeting. The Council provided comments on earlier stages of the New England project in [July 2021](#).
- **Fisheries Mitigation Guidance:** Earlier this year, BOEM released draft Guidelines for Mitigating Impacts to Commercial and Recreational Fisheries, with a comment period that ended in August 2022. BOEM is now reviewing comments and developing the final guidance. More information is available [here](#).
 - The Council previously provided comments on this topic in [January 2022](#) and [August 2022](#).
- **National Academies of Science Standing Committee on Offshore Wind Energy and Fisheries:** In October 2022, the National Academies of Science released a request for nominations for members of a standing committee to provide ongoing advice to BOEM on offshore wind energy and fisheries. The nomination period closed on November 9. More information is available [here](#).

State Working Group on Fisheries Compensatory Mitigation Fund

Nine coastal states (Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Maryland, and Virginia) have been advancing an initiative to establish a regional fund administrator for fisheries compensatory mitigation which would provide financial compensation for impacts from offshore wind development in the Atlantic Coast region. This effort focuses on supporting the BOEM Draft Fisheries Mitigation Framework by working to advance the establishment of an administrator that would collect, hold, and dispense funds to impacted members of the fishing community while creating a process that is fair, equitable, and transparent across the region and engages with the fishing and offshore wind industries. The states have developed and will be releasing a request for information to solicit feedback on the design of the fund administrator.

Council member Joe Cimino will provide an update on this initiative during the December 2022 Council meeting.

November 30, 2022

**100 Davisville Pier
North Kingstown, R.I. 02852 U.S.A.
Tel: (401)295-2585**

RE: BOEM and NOAA Fisheries North Atlantic Right Whale and Offshore Wind Strategy 2022; BOEM-2022-0066-0003

Our comments will focus mostly on the Draft Strategy's first goal, which is Mitigation and Decision-Support Tools. This is the most important section, as North Atlantic Right Whales (NARW) are at risk right now and not just in the future, and require immediate, implementable solutions in the face of current and ongoing wind development, project review, and project construction. Goal 2, Research and Monitoring, and Goal 3, Collaboration, Communication and Outreach, are acceptable future goals, but for a critically endangered species experiencing rapid decline in the now, are not the most critical aspect of the Draft Strategy.

The Draft Strategy states in the Mitigation and Decision-Support Tool section that its two primary actions will be to "Avoid" and "Minimize" impacts, as described in more detail in Appendix A. However, a quick read of Appendix A "Action" items contains only weakly worded actions such as "Periodically review", "Work to ensure", "Advance", "Develop", "Promote...Consider", "Support", "Develop approaches", "Understand", "Explore", etc. There is nothing truly about Avoiding or Minimizing impacts, only lists of future aspirations. The approaches listed are essentially the same Goals 2 and 3 of Research/Monitoring/Collaboration in substance and provide no real, concrete actions that BOEM will take to preserve NARW in current and ongoing reviews or projects. Therefore, it is unclear how the Draft BOEM Strategy plans to actively address NARW impacts in the immediate projects undergoing review, or even projects that have already been approved.

The Draft Strategy is deafeningly silent on the one detailed recommendation from NOAA regarding NARWs and offshore wind- that of conservation buffer zones to protect the species, detailed in NOAA's May 13, 2022, letter to BOEM.¹ NOAA has provided a clear and implementable recommendation to ensure that population level effects are mitigated on a critically endangered species where the allowable PBR is less than one coastwide death, including those of Canadian origin². The conservation buffer zone recommendation should not only be incorporated into ongoing DEIS NEPA review but also feature prominently in this Draft Strategy.

The fact that the conservation buffer zone recommendation has not been incorporated into this Draft Guidance makes it clear that BOEM has taken the lead on the Draft Strategy document, rather than truly engaging in interagency consultation and collaboration with the lead agency with expertise on Endangered Species Act (ESA) mammal protection. This is a disturbing trend throughout the BOEM process on many issues, which we highlight here and request that BOEM rectify. We submit that BOEM

¹ See "NOAA Scientists propose more protection for right whales in offshore wind area" here: [NOAA scientists propose more protection for right whales in offshore wind area - The New Bedford Light](#), and letter, attached.

² See [Copy of 09 2022 Scoping for Modifications to the Atlantic Large Whale Take Reduction Plan \(noaa.gov\)](#); as of 2021, the PBR is 0.7.

does not have the expertise to accurately make these decisions or recommendations on its own, whether for fisheries, mammal, navigational, or other issues.

NOAA's May 13 2022, letter to BOEM regarding measures to protect NARW off of Southern New England would fit nicely into BOEM's "Avoid" category, i.e. "avoid the impact altogether by not taking a certain action or parts of an action or by modifying the action to avert impacts", which it defines on page 15 of the Draft. This avoidance should be incorporated into any ongoing EIS processes for leases in the Southern New England area and evaluate Alternatives that would eliminate this area from project footprints. It should also be applied to any projects currently approved but not yet constructed, per the ESA.

It would also seem that given the specificity of the recommendation, the new scientific analysis conducted to support the recommendation, and the significance of preservation of a critically endangered species, BOEM should also reinstate ESA Section 7 consultation for existing projects that have already undergone ESA consultation pursuant to 50 C.F.R. § 402.16(a)(ii), which requires an agency to reinstate Section 7 consultation whenever "new information reveals effects of [an] action that may affect listed species or critical habitat in a manner or to an extent not previously considered". As this information was not previously considered, relevant BiOps should be reopened and reevaluated, including that of Vineyard Wind and projects already approved.

The NOAA letter highlights the risk that offshore wind in Southern New England poses to NARW due to species abundance and distribution and focuses specifically on operational effects not previously considered but which cannot be mitigated for the 30-year lifespan of the project. The impacts identified in the letter are the result of offshore wind facilities merely existing in an area, not those resulting from facility construction, surveys, or vessel traffic/noise, which have previously been identified in BOEM analysis. It is a newly raised impact. The only identified solutions to rectifying operational impacts are (1) no build zones or (2) decommissioning, i.e., the absence of windmills.

NOAA states, "[O]ceanographic impacts from installed and operating turbines **cannot be mitigated for the 30-year lifespan of the project, unless they are decommissioned..... Disturbance to right whale foraging could have population-level effects on an already endangered and stressed species.... We anticipate that incremental movement on the scale of 20 km or more from the edge of Nantucket Shoals 30 meter isobath for initial proposed development, inclusive of WTGs and DC-converto OSSs, would reduce the potential for negative consequences to right whale prey and the NARW population... We propose the buffer zone begin at the 30 m isobath, which corresponds with the predicted location of tidal mixing fronts in this region (Simpson and Hunter 1974, Wilkin 2006). A conservation buffer of 20 km also corresponds to the extent of the strongest impacts to depth-averaged velocity, salinity, and sea-surface elevation changes as observed in the North Sea, where the largest impacts extended 20-30 km and where turbines, both height and number, were much smaller than planned development in southern New England (Christiansen et al. 2022). Concentrating development to the southwest and creating a conservation buffer adjacent to the Shoals is expected to reduce risk by reducing overlap between high species distribution and concentrated areas of construction, operations and maintenance activities, including associated vessel traffic and potential changes in commercial and recreational fishing activity. We note that offshore wind maintenance and operational impacts would be for a duration of thirty or more years."**³

³ Emphasis ours.

We have also highlighted for many years the difference in turbine size between what BOEM is considering and those of the studies it relies on from abroad. We request that BOEM and NOAA conduct new independent, peer reviewed analysis using modeling which incorporates the actual turbine sizes under BOEM consideration, with an updated evaluation of the requisite size of the recommended conservation buffer zone, as the larger turbines being planned for Southern New England are much larger compared to those in the North Sea used in the original recommendation and may require larger no build zones.

We also request that BOEM incorporate this 20 km no-build conservation buffer zone around Nantucket Shoals (and any larger area identified as a result of modeling larger turbines) to preserve the population of NARW in its Final NARW Strategy as an Action item under Goal 1 and include a chart of the conservation buffer zone overlaid on a NOAA nautical chart which includes existing MA WEA leases. We request that BOEM incorporate this conservation buffer zone into all project analysis in that area going forward, while reopening Section 7 consults per 50 C.F.R. § 402.16(a)(ii) to incorporate this new information/operational impact in projects where the Section 7 consultation has already occurred, including approved projects which have not yet been constructed.

In the Draft Strategy, BOEM alludes to certain issues identified by NOAA's May 13, 2022 letter, such as the "distribution and abundance of NARW zooplankton prey",⁴ yet explicitly refuses to include reference to the letter or its recommendations in the Draft. This is despite the fact that BOEM's Draft contains references to other NOAA letters in the "References" section of the document.⁵ It is clear that BOEM has deliberately excluded the May 13, 2022 letter from this Draft. Instead, it appears as if BOEM has hastily issued the Draft in order to deflect the actual recommendations that NOAA has proposed. This is an inappropriate agency position.

The second major issue with Goal 1 is the list of preliminary measures that BOEM has adopted "to avoid and minimize impacts to NARWs from OSW activities" during project planning/siting/leasing, site characterization and UXO surveys, and construction/operations.⁶ BOEM includes measures in this list which it knows are ineffective at accomplishing this goal, as well alludes to process which it in fact does not have. This is simply unacceptable.

BOEM does not avoid NARW aggregating areas during its leasing or siting stages. It does not go through the EIS process prior to leasing or avoid NARW aggregations based on the analysis contained therein when siting leases. According to the Outer Continental Shelf Lands Act, BOEM should be conducting an EIS at the lease stage, as the legislation stipulates that when conducting any offshore wind development, the Secretary "**shall ensure**" that "**that any activity under this subsection is carried out in a manner that provides for.... protection of the environment..... [and] conservation of the natural resources of the outer Continental Shelf.**"⁷ This would include conservation of a critically endangered species. If BOEM were complying with this legislative requirement, it would in fact be

⁴ Page 17.

⁵ See Anderson J. 2021. Letter to J.F. Bennett concerning the effects of certain site assessment and site characterization activities to be carried out to support the siting of offshore wind energy development projects off the U.S. Atlantic Coast (updated Sep 30, 2021). Gloucester (MA): U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. 68 p. https://media.fisheries.noaa.gov/2021-12/OSW%20surveys_NLAA%20programmatic_rev%201_2021-09-30%20%28508%29.pdf, p. 27.

⁶ Pages 15-16.

⁷ OSLA, 43 U.S.C. § 1337(p)(4), emphasis ours.

conducting analysis at the leasing stage and taking steps to avoid siting leases on locations important to NARW. However, it does not do this. BOEM does not conduct an EIS or initiate ESA Section 7 consultation until much later in the process. To pretend in the Draft Strategy that it is in fact conducting its leasing and siting to implement the requirements of OSCLA is both disingenuous and untrue.

Appendix B details the measures BOEM has “developed” to avoid and minimize impacts from the various stages of OSW. However, these are for the most part merely measures that BOEM has already adopted while knowing that they are ineffective to protect NARW. These include measures pertaining to UXO, pile driving, and passive acoustic monitoring. We have addressed these issues in our comments in the Revolution Wind Draft EIS, all of which we incorporate here by reference.

Appendix B’s first section, “Site Characterization and UXO Surveys” purportedly contains a strategy to address UXO as relates to right whales. Page 40 reveals this strategy is to “develop and implement standard protocols for addressing unexploded ordinances, including implementation of best available technology to avoid or minimize exposure of NARW and their habitats to low order (e.g. deflagration) or high order detonations or chemical release”.

There are two problems with this statement/strategy. First, this statement ignores the fact that BOEM has no such authority. BOEM does not have the legislative authority to authorize UXO detonation/removal or to delegate that authorization to a third party, namely, a developer. BOEM cannot pretend to have authority that it does not have. The US Navy and the USCG, governmental agencies with the expertise and authority to handle UXO in the case of emergencies, do not even have the authority to delegate UXO removal/detonation/deflagration to a developer or even to BOEM. To indicate that BOEM possesses this authority is misleading to the public, and we request that BOEM make adjustments to these statements in the Final Draft Strategy and detail how it plans to overcome this obstacle with regard to addressing the very real threat of UXO to NARW.

Second, BOEM still has not begun to effectively estimate and analyze the impacts of UXO to NARW in current DEIS’s undergoing review. If BOEM plans to only conduct vague, futuristic “Action” items listed for Goal 1, but fails to do something immediately for projects undergoing review, NARW will be placed in immediate jeopardy, which is unacceptable and violates the ESA. Under the Construction and Operation heading of Appendix B, BOEM lists only actions which have already proven to be ineffective for UXO or ineffective under current protocols absent more extensive measures, such as monitoring “clearance zones”, “shutdown zones”, “protected species observers”, and “quieter foundations, technology, and methods.....including...the use of noise abatement systems (e.g., double bubble curtains”.⁸ Due to the massive area required to monitor for UXO detonation, it will be impossible to monitor under current methods, including protected species observers. It is this monitoring and detection that would inform clearance zones and shutdown zones. Furthermore, bubble curtains do not work for low frequency mammals such as NARW, according to BOEM’s own data. It is insulting that BOEM continues to perpetuate the myth that bubble curtains will somehow mitigate impacts to NARW when this is blatant misinformation.

In the Revolution Wind DEIS, which just completed a public comment period, BOEM included a table provided by the developer that showed the distance to cumulative injury threshold for low frequency marine mammals is up to 2.65 miles away, and the distance to behavioral or cumulative temporary hearing threshold shift (TTS) effect threshold is up to 8.3 miles away from the detonation

⁸ Page 41.

site.⁹ An 8.3 mile radius is a large area to monitor for every UXO detonation, and it is unclear how this could be monitored by protected species observers or methods other than passive acoustic monitoring (PAM) which does not work for NARW mother/calf pairs, as discussed below. However, a temporary hearing threshold shift for North Atlantic right whales could easily make these whales vulnerable to vessel strikes and other hazards while impaired.

Also noteworthy (and discussed below with regards to peer reviewed data) is the fact that the above distances of 2.65 miles and 8.3 miles detailed by BOEM's chart in the Revolution Wind DEIS as distances from detonation site for peak and cumulative permanent and temporary hearing threshold shift (PTS and TTS) for marine mammals are calculated solely by a document paid for and prepared by the developer, entitled "Underwater Acoustic Modeling of Detonations of Unexploded Ordnance (UXO) for Orsted Wind Farm Construction, US East Coast."¹⁰ BOEM did not use NOAA standards of cumulative threshold distances for NARW impact in the Revolution Wind DEIS, and instead relegated these distances to a mere footnote in deference to developer created data/spreadsheets, despite the fact that NOAA is a cooperating agency and the only federal agency with expertise in NARW analysis. The footnote of NOAA data reads, "NOAA uses the larger cumulative threshold distance to assess potential PTS and TTS exposure resulting from UXO detonation...PTS injury and TTS exposure acreages could occur within a 46,139 to 567,221- acre zone of potential exposure within and around the maximum work area for the RWF and RWEC, varying by hearing group and type of exposure."¹¹ According to NOAA, the cumulative threshold distance for PTS and TTS from the UXO detonation site is up to 886 square miles (567,221 acres). This would be virtually impossible to monitor using current methods. We request that BOEM incorporate NOAA data rather than allowing developer data to determine impact analysis for NARW and that BOEM explain in the Draft Strategy how it proposes to protect NARW in an 886 square mile when detonating UXO, as many current and upcoming DEIS plan to conduct such detonation. BOEM cannot continue to take the lead on NARW impacts and must allow the agency with expertise to drive the bus, particularly in the "joint" Draft Strategy.

BOEM has also omitted any analysis on non-auditory NARW impacts. Not all UXO detonation injuries or potential UXO-induced mortality is related to marine mammal hearing. The Revolution Wind DEIS states, "UXO detonation may also result in non-auditory injury (i.e. lung and gastrointestinal tract compression injuries)."¹² These impacts must be treated differently than hearing threshold impacts and contain detailed analysis, both in the Draft Strategy and in DEIS review, particularly for critically endangered NARW. The Revolution Wind DEIS, following this single sentence regarding lung and intestinal tract compression injuries, merely notes, "A detailed discussion of noise impacts on marine mammals is provided in Vineyard Wind final EIS Section 3.4.1.1.1 (BOEM 2021b)."¹³ However, neither the Vineyard Wind Final EIS Section 3.4.1.1.1, "Marine Mammals", nor anywhere else in the Final EIS mentions UXO detonation. A word search of the Vineyard Wind Final EIS for the term "UXO" yields the result, "No matches were found". Therefore, the Vineyard Wind FEIS did not analyze UXO detonation at all- a major flaw, as the developer has already uncovered UXO in the project area during surveys. No

⁹ Revolution Wind DEIS, p. 3.15-27; the chart states 14,009 feet and 44,291 feet, which are 2.65 and 8.3 miles, respectively.

¹⁰ Hannay, D., and M. Zykov. 2021. *Underwater Acoustic Modeling of Detonations of Unexploded Ordnance (UXO) for Ørsted Wind Farm Construction, US East Coast*. Silver Spring, Maryland: JASCO Applied Sciences.

¹¹ Revolution Wind DEIS, p. 3.15-27, footnote #.

¹² Revolution Wind DEIS, p. 3.15-28.

¹³ Revolution Wind DEIS, p. 3.15-28.

analysis on these impacts exist at the BOEM level, and such an omission must be immediately addressed, including reopening the ESA Section 7 consultation for Vineyard Wind. BOEM cannot continue to aspire to attain the lofty future Draft Strategy objectives of “Periodically review”, “Work to ensure”, “Advance”, “Develop”, “Promote...Consider”, “Support”, “Develop approaches”, “Understand”, “Explore” while allowing NARW internal organs to implode in the meantime due to detonation of 1,000 lb. UXOs. It cannot issue permits that allow this to occur, and absent independent analysis and effective mitigation measures, it most likely will occur, leading to NARW deaths.

BOEM’s Draft Strategy relies heavily on passive acoustic monitoring (PAM) as a mitigation measure in various applications, including various Action items, to downplay construction and vessel strike impacts on marine mammals, as well as UXO impacts. However, specific to North Atlantic Right whales, this also falls short of necessary protections. According to peer reviewed scientific data, North Atlantic Right whale mother and calves in particular exhibit “acoustic crypsis”, i.e. they exhibit reduced calling rates and reduced call amplitude compared to other whales as a way to minimize the attention of predators.¹⁴ PAM will therefore be an ineffective means of identifying and avoiding mothers and calves in an area slated for either UXO detonation or construction. We request that BOEM specify effective alternatives to this method of NARW detection, including over the 886 square mile impact zone for UXO detonation, in response to this peer reviewed science.

The Draft Strategy, Appendix A and B, as well as most BOEM DEIS analysis, continually rely on bubble curtains as a mitigation measure for reducing pile-driving noise, as well as UXO noise, on NARW. For example, the Revolution Wind DEIS concludes that bubble curtains will be effective at minimizing effects to marine mammals and ESA listed species from UXO detonation on page 3.15-11. Appendix F, “Environmental Protection Measures, Mitigation and Monitoring” lists bubble curtains on pages F-7 and F-8 as the mitigation measure for marine mammals related to construction and installation’s impact and vibratory pile driving. However, BOEM already knows that bubble curtains do not protect North Atlantic right whales from impacts. Bubble curtains were designed to mitigate effects for high frequency marine mammals. At its Renewable Energy Program Update Briefing for the Mid Atlantic Fisheries Management Council on February 11, 2021, attached, BOEM’s presentation openly stated, “Low frequency sound (<200Hz) is not reduced by the bubble curtain”.¹⁵ Therefore, as low frequency species- and identified by BOEM as such- North Atlantic right whales will not benefit from bubble curtains. Right whales’ acoustic signals and acoustic sensitivity are below 200 Hz.¹⁶ As such, North Atlantic right whales are at a risk of hearing loss and other permanent impacts despite the use of bubble curtains during pile driving and UXO detonation activities. This is not acceptable, and we request that BOEM remove all references to bubble curtains as any kind of NARW mitigation measure in the Draft Strategy, as well as from any ongoing project NEPA review/NARW analysis. We request that mitigation measures specific to low frequency mammals be instead analyzed and incorporated into the Draft Strategy and BOEM NEPA analysis.

¹⁴ Parks et al., “Acoustic crypsis in communication by North Atlantic right whale mother-calf pairs on calving grounds”, *Biology Letters*, 16 September 2019, also attached with our comment.

¹⁵ See

https://static1.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/602d7bbd49ee2d06d9db12c4/1613593539206/05a_BOEM+Renewables+Program+Update+2021-02.pdf, p. 21 of 23. Also attached as part of this comment.

¹⁶ Quintana-Rizzo et al., “Residency, demographics, and movement patterns of North Atlantic right whales *Eubalaena glacialis* in an offshore wind energy development area in southern New England, USA”, *Endangered Species Research*, Vol. 45: 251-268, July 29, 2021, p. 253.

The Draft Strategy mentions a commitment to peer-reviewed publications, data, and peer review of science and even the Strategy itself in various places such as an objective under Goal 3,¹⁷ and an Action under Goal 2,¹⁸ and as an oversight for monitoring studies.¹⁹ However, BOEM is not using peer reviewed studies in its DEIS review and analysis now. In fact, it has not only omitted peer reviewed science from its DEIS analysis (when unfavorable to a developer), but it has actually relied solely on developer-created data for significant NARW analysis, in a clear conflict of interest. That is the opposite of independent peer review. The Draft Strategy is not consistent with actual BOEM process, and unless BOEM adjusts its process, is mostly meaningless.

For example, in the Revolution Wind DEIS, BOEM omitted any mention of the study “Residency, demographics, and movement patterns of North Atlantic right whales *Eubalaena glacialis* in an offshore wind energy development area in southern New England, USA” by Quintana-Rizzo et al, published July 29, 2021 in *Endangered Species Research*, as well as any other research showing high concentrations of NARW in the MA/RI WEA. This information was peer reviewed, yet its absence was deafening. The Revolution Wind DEIS did not include the NOAA NARW density model, which we highlighted in our comments. BOEM cited one source- the developer’s petition for an incidental take permit- as its only analysis for impacts to or takes of marine mammals as a result of UXO detonation as well as construction activities. It has not looked at any peer reviewed or NOAA data for these impacts. BOEM has clearly had no intention of using data other than that which promotes wind development. This needs to immediately be rectified, and we request that BOEM immediately incorporate the best available science, including peer reviewed NARW data and specialty NOAA data such as its NARW Density Model, explicitly into its analysis and this Strategy. We also request that the NARW Density Model results be included in all BiOps and reopened BiOps pursuant to 50 C.F.R. § 402.16(a)(ii) ESA consultation requirements.

Additionally, we note that BOEM studies are not peer reviewed and should not hold more weight in analysis than studies which are peer reviewed. Developer generated data should not be the sole source of analysis for any aspect of NEPA review or ESA review. In fact, it should not be a source of data at all, as it is a clear conflict of interest when analyzing the parameters of a project. We request that BOEM clearly differentiate between developer data and NOAA/peer reviewed data in all analysis/DEIS documents and remove agency reliance on developer generated impacts analysis to NARW.

Thank you for the opportunity to comment.

Sincerely,
Meghan Lapp
Fisheries Liaison
Seafreeze Shoreside, Seafreeze Ltd.

¹⁷ Pages 19-20.

¹⁸ Page 34.

¹⁹ Page 42.