

November 11, 2023

By E-Mail

National Marine Fisheries Service,
Office of Protected Resources
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Re: 60-Day Notice of Intent to Sue Over Biological Opinion for the Construction, Operation, and Decommissioning of the Coastal Virginia Offshore Wind Commercial Project (Lease OCS-A-0483)—Issue Date September 18, 2023

Dear Director Damon-Randall:

This firm represents the Committee for a Constructive Tomorrow (CFACT) and The Heartland Institute (“Heartland”) on matters relating to offshore wind energy development and its impacts on the human and natural environment. We have reviewed the Biological Opinion (“BiOp”) that the National Marine Fisheries Service (NMFS) prepared for the construction, operation, and decommissioning of the Coastal Virginia Offshore Wind (CVOW) project – also known as “Dominion Wind”. As explained below, the BiOp suffers from a host analytical defects that render it unreliable and unusable as the basis for authorizing incidental take of listed species, most notably the North Atlantic right whale (NARW). In short, the BiOp fails to meet the minimum requirements imposed by the Endangered Species Act (ESA). By issuing it, NMFS has violated the Act. By accepting it, the Bureau of Ocean Energy Management (BOEM) has likewise violated the Act.

We provide this letter in hopes that NMFS and BOEM will rescind the current BiOp, correct the deficiencies described below, and adjust the incidental take authorization to more accurately reflect the CVOW’s real impact on NARW and other listed species. Should NMFS and BOEM not take these steps, CFACT and Heartland will wait the required 60 days and then file suit challenging the legal adequacy of the BiOp.

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1. The BiOp Fails to Analyze the CVOW Project’s Cumulative Impacts on NARWs, Most of Which Will be Adversely Affected by Every Offshore Wind Project Currently Contemplated for the Atlantic Coast.

The CVOW BiOp constrains its analysis to the CVOW project and “project area”. See BiOp p. 214. It does not assess or otherwise take into account the other offshore wind projects currently slated for development along the eastern seaboard of the United States. This results in a gross underreporting of impacts on individual NARWs and on the species as a whole. In their draft “North Atlantic Right Whale and Offshore Wind Strategy” (October 2022), BOEM and NOAA made the following statements about the potentially dangerous interface between offshore wind development and NARW critical life behaviors. The following quotations from the “strategy” are indicative:

- “NOAA Fisheries’ *North Atlantic Right Whale Priority Action Plan for 2021-2025* identifies the need to improve our knowledge of factors that may limit NARW recovery, such as OSW development (NOAA Fisheries 2021). The plan identifies the need for a robust and comprehensive analysis of temporary and long-term direct and indirect impacts of OSW development from construction through decommissioning. (NARW and OSW Strategy, p. 7.)
- “Within the areas proposed for OSW development in the U.S., NARW engage in migration, foraging, socializing, reproductive, calving, and resting behaviors critical to their survival. The overlap between OSW development (planned, leased, permitted) and NARW habitat extends to corridors outside the immediate development sites, where vessel traffic between ports and offshore sites would further overlap with distribution of NARWs.” (*Ibid.*)
- “Noise and ecosystem-level changes resulting from OSW development that may impact NARW are also likely to extend beyond the immediate OSW lease areas.” (*Ibid.*)
- “Effects to NARWs could result from exposure to a single project and may be compounded by exposure to multiple projects. It is important to recognize that NARWs migrating along the U.S. Atlantic Coast travel through or nearby every proposed OSW development. (*Id.*, at p. 11.)

This last statement requires a closer examination, as it speaks to a fundamental flaw in the BiOp for the CVOW project. It is clear from the quoted language that NMFS and BOEM know that each migrating NARW individual (of which there are approximately 300 in existence) will pass through or near every approved or proposed OSW project now being processed by BOEM. It is also clear that NMFS and BOEM know that an individual NARW will receive impacts from each and every one of these OSW projects, resulting in cumulative and compound damage to the animal in

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question. The BiOp, however, neither acknowledges this fact nor analyzes the compound impacts that are sure to result.

This piecemeal consideration of each individual wind project is invalid as a matter of law. *Wild Fish Conservancy v. Salazar*, 628 F. 3rd 513 (9th. Cir. 2010); *Strahan v. Roughead*, 910 F. Supp. 2d. 358 (D. Mass. 2012); *Thomas v. Peterson*, 753 F.2d 754 (9th Cir. 1985). The CVOW project is an integral part of a larger enterprise which involves multiple leases for federal offshore property stretching from Massachusetts to Virginia. This is the "action" which should be analyzed by the federal agencies in determining the impact of the East Coast offshore wind program on endangered species, such as the NARW. This necessitates an assessment of the cumulative impact of all the industrial wind projects contained in the plan, during the proposal stage, with permitting and construction only beginning after a comprehensive EIS is completed is public notice. The only comprehensive EIS of the offshore wind program was published in Oct. 2007 (The Final Programmatic Environmental Impact Statement), which explicitly stated that it was limited to current information and, for the future, only to "possible activities that may be initiated in the foreseeable future 5-7 Years (2007-2011)". A BiOp issued in 2023, based on an outdated and inapposite EIS, is invalid as a matter of law, and injunctive relief is the proper remedy. An example of the case law:

"A listed species could be gradually destroyed, so long as each step on its path to destruction is sufficiently modest. This type of slow slide into oblivion is one of the very ills the ESA seeks to prevent". *Wild Fish Conservancy v. Salazar*, *supra*, 628 F.3d at p. 524.

2. The BiOp Fails to Use "Best Scientific Information Available" Because the Standards for Noise Tolerance of the NARW Were Based On Information that Was "Almost Non-Existent" at the Time.

BOEM has admitted that when the noise regulations for the NARW were promulgated, the noise parameters for baleen whales were "virtually unknown" and "almost non-existent." To rectify this admitted "knowledge gap," BOEM commissioned a complex program of additional investigation, as described in the "North Atlantic Right Whale and Offshore Wind Strategy", and one additional study co-funded with the US Navy, known as the "Auditory Weighting Function for Low-Frequency Whales" (Feb. 2021). The first document recommended numerous studies of baleen whale hearing capabilities, all of which are ongoing. The second document – the Auditory Weighting Function for Low-Frequency Whales – consists of three studies which are ongoing and not due for completion until 2025. Because BOEM admitted that it based its regulations on outdated and incomplete data, without satisfying this "number one information need," the BiOp's conclusion that "[n]o mortality or permanent injury (auditory or other) is expected from exposure to any aspect of the proposed action" (p. 216) is arbitrary and capricious.

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3. The BiOp Fails to Analyze Cumulative Impact on NARW from Multiple Level B Noise Take Authorizations

The developers of eleven offshore wind projects located off the coast of Massachusetts, New York, Connecticut, New Jersey, Maryland, Delaware, and Virginia all requested authorization to "take" NARWs and other marine mammals while performing site evaluation activities from April 2022 to November 2023. NMFS issued 163 "level B take" permits for the NARW to these developers. Level B take is defined as "the potential to disturb marine mammal stock by causing disruption of behavioral patterns, including migration, breathing, nursing, breeding, feeding or sheltering." The 163 Level B takes affects more than 50% of the entire estimated NARW population of 350 animals. In addition, the 163 takes does not take into account the Level B harassment authorizations for *construction-related noise* from the 20-plus offshore wind projects to be located up and down the Atlantic coast. In short, the BiOp fails to assess the cumulative load of these Level B takes on the affected NARWs, resulting in a violation of the ESA.

4. The BiOp Violates the ESA Because it Authorizes Loss of NARW in Excess of its Potential Biological Removal Rate.

The Potential Biological Removal Rate established by the NMFS - the number of human caused whale mortalities that can occur each year if the species is to survive - is objective, not subjective. That number is .07, which means there can be *zero human caused deaths per year*. For the CVOW project alone, NOAA anticipates eight human caused deaths per year for the next five years. (See Notice of Proposed Rulemaking, May 4, 2023, Ex. 7.) It is arbitrary and capricious for an agency to issue a regulation which claims to result in one outcome - zero deaths - while at the same time anticipating an opposite result - eight human caused dead whales per year. *American Rivers v. US Army Corps of Engineers*, 272 F.Supp.2d 230 (Dist. Ct. DC 2003) (BiOp is arbitrary and capricious where outcome predicted is not likely to occur).

5. Presidential Order 14008 violates the APA, the MMPA, and the ESA by removing the BOEM's discretion to adopt the No Action Alternative and to exercise its duty to properly protect endangered species.

Presidential Order 14008 requires that all federal agencies implement the programmatic East Coast offshore wind program. The MMPA and ESA, however, require federal agencies to protect endangered species. The federal agencies admit that they "do not know" what the impact of the industrialization of federal waters with thousands of offshore wind towers will be on the endangered North Atlantic Right Whale, but they authorize the program anyway because of the Presidential Order's directive, and then hide behind "mitigation" measures. See "Auditory Function." Thus, the BiOp violates the ESA mandate to "ensure" that the Virginia offshore wind program, and the related East Coast wind projects, will not result in the extinction of the North Atlantic Right Whale as a species, as required by ESA.

6. The Proposed Mitigation Measures Will Not Adequately Protect NARW from Project-Related Vessel Strikes.

The BiOp acknowledges that vessel strikes on NARW are a major cause of species mortality and a significant contributor to NARW population declines. The BiOp also acknowledges that the CVOW project will require hundreds of vessel trips, consisting of thousands of vessel miles, all through habitat used by NARW. These facts establish a clear potential for project-related vessel strikes on NARW and corresponding impacts to species survival and recovery.

To mitigate this impact, BOEM and Dominion have proposed two measures. First, they intend to staff project vessels with Protected Species Observers (PSOs), who would be trained to scan the ocean's surface looking for signs of NARW. If a PSO sees one, he or she is to report the sighting to the vessel captain who, presumably, will then take evasive action. The problem, however, is that PSOs – even under calm conditions – cannot detect NARW more than a few feet under the water's surface. During medium to high-swell conditions, the PSOs won't be able to consistently detect NARW when they come up to breathe or socialize. Because NARW spend most of their time underwater at depth, the PSOs will be largely unable to detect them. Consequently, PSOs provide little protection against vessel strikes.

The second proposed “vessel strike” mitigation measure is a 10 knot per hour speed limit for all project-related vessels. This speed limit, however, only applies for half the year (November through April). Vessels traveling to and from the project area during the remainder of the year (May through October) can travel as fast as they like. It is well established that when a vessel traveling in excess of 15 knots per hour collides with a whale, mortality is virtually 100 percent assured. The proposed mitigation measure does not address this issue and, in fact, would seem to place NARW in jeopardy of being struck and killed by project vessels. The BiOp, however, does not critically assess the vessel speed/whale collision issue; nor does it question why the 10 knot per hour speed applies only half the year. It accepts without discussion or analysis BOEM's assertion that NARW do not migrate through the project area between May and October. The evidence, however, is to the contrary. NARW *do* migrate through the project area during those months, though perhaps in smaller numbers. Given that the NARW has a potential biological removal (PBR) rate of less than 1.0 (i.e., 0.7, as noted above), even a single death due to vessel collision will push the species toward extinction.

Simply put, neither the PSOs nor the vessel speed limit, even when working in tandem, will be enough to protect NARW from potentially deadly collisions with project-related vessels. The BiOp's reliance on these measures to safeguard NARW is misplaced and without adequate scientific foundation.

7. Project Construction Activities, Including “Soft Start” Pile Driving, Will Force NARW Out of Their Preferred Habitat and Into Areas of Increased Threats – an Impact Not Studied in the BiOp.

Dominion will begin each pile driving event with a “soft start” to encourage NARWs to leave the project area and thereby escape harm from pile driving noise. The BiOp accepts this as an adequate means of protecting NARW from noise-related damage (Level A and Level B). The BiOp, however, fails to acknowledge, much less assess, the impacts of pushing NARW out of the project area into waters with heavy vessel traffic and significant fishing activity. The proposed “soft start” procedure will force NARW out of their preferred travel corridors and foraging zones into areas where they could be struck by vessels and/or become entangled in fishing gear – the two most prominent causes of NARW mortality and population declines. By ignoring this impact, NMFS has issued BiOp that is fundamentally flawed and incomplete. Worse, NMFS has effectively sanctioned construction activities that will drive NARW into areas where they will be exposed to threats not studied or mitigated in the BiOp (or any other documents prepared by BOEM or NMFS). Note, too, that the problem does not go away once pile driving transitions from “soft start” to full-power hammering. To the contrary. Due to the intense noise it generates, full-power hammering ensures that NARW will be forced to stay out of the pile driving zone for at least three hours per pile drive event. And there is no guarantee the whales will come back soon or at all. This means that the NARW will be displaced for considerable periods of time, in waters not of their choosing, where threats to their physical wellbeing are significant and perhaps devastating. Again, the BiOp fails to analyze this impact or impose measures to avoid it.

8. The BiOp Fails to Analyze Whether and to What Extent Project Operations Will Cause NARW to Abandon Favored Migration Routes and Feeding Areas,

Nearly the entire BiOp is focused on the *construction-related* impacts of the CVOW project; the BiOp spends little time analyzing the project’s *operational* impacts. At this time, there is no scientific data showing that NARW (or any other species of whale) will continue to use migration routes or feeding areas that intersect or otherwise overlap with operational offshore wind arrays. The mere presence of hundreds of huge turbines, to say nothing of the noise they generate and the hydrological and oceanographic changes they make to the environment, may cause many NARW to avoid CVOW (and other offshore wind farms) even if it means abandoning their preferred travel corridors and foraging areas. Again, any time whales are forced out of their preferred areas, they are exposed to potential threats, including vessel collisions, fishing gear entanglement, unnecessary expenditure of energy, and malnutrition. The BiOp does not address this potential impact on individual NARW or on the species as a whole. And unlike construction-related impacts, which are at least short in duration, the Project’s operational impacts will be long-term, lasting decades. The BiOp should analyze, but does not, the longitudinal effect Project operations will have on the NARW.

9. The BiOp Fails to Analyze Project’s Potential to Alter Water Mixing Patterns and Dispersal of Zooplankton (Copepods).

In a letter to BOEM’s Lead Biologist (Brian Hooker), dated May 13, 2022, Sean Hayes, Ph.D., the Chief of Protected Species at NOAA (New England), stated that operational effects of offshore wind projects in New England could have population-scale impacts on NARW. Specifically, Dr. Hayes indicated that OSW-related oceanographic changes “may disrupt the distribution, abundance, and availability of typical right whale food (e.g., Dorrell et al 2022),” which in this context means zooplankton. Dr. Hayes then explained in detail how water mixing and stratification caused by wind turbine operations could make it difficult for NARWs to find and access the dense accumulations of zooplankton they need for survival:

Right whales need dense aggregations of prey to make foraging energetically worthwhile, and disruptions to prey aggregations in the only known winter foraging area for right whales could have significant energetic and population consequences (Baumgartner and Mate 2003, 2005, van der Hoop et al 2019, Kenny et al 2020). Without dense aggregations of prey, right whales will search elsewhere for food, potentially at an energetic loss, given the likely increased metabolic travel costs and that alternative energetically beneficial foraging grounds may not exist during the winter. In addition, searching for new areas may place them in harm’s way as occurred during their shift to Canadian waters sometime after 2010, resulting in 17 observed mortalities in 2017 and another 10 in 2019, and estimates of more than 200 total mortalities since (Davies & Brilliant 2019, Pace et al. 2021.)

The presence of structures such as wind turbines are likely to result in both local and broader oceanographic effects, and may disrupt the dense aggregations and distribution of zooplankton prey through altering the strength of tidal currents and associated fronts, changes in stratification, primary production, the degree of mixing, and stratification in the water column (Chen et al. 2021, Johnson et al 2021, Christiansen et al 2022, Dorrell et al 2022). Modeling studies in this region have found changes in distribution patterns of planktonic larvae under offshore wind build-out scenarios (Johnson et al. 2021, Chen et al. 2021), suggesting similar impacts could occur with right whale’s zooplankton prey. The scale of impacts is difficult to predict and may vary from hundreds of meters for local individual turbine impacts (Schultze et al. 2020) to large-scale dipoles of surface elevation changes stretching hundreds of kilometers (Christiansen et al. 2022). Additionally, offshore

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substations pose an unknown risk related to water withdrawals and impingement/entrainment of zooplankton and other prey species.

(Sean Hayes, Ph.D., letter to Brian Hooker, May 13, 2022.)

Dr. Hayes' comments were focused on the NARW situation in New England, specifically the offshore wind projects slated for the southern coast of Nantucket, MA. His concerns regarding the long-term effects of offshore wind arrays on zooplankton abundance and density, however, apply to any location where NARW feed, including the coastal waters of Virginia (i.e., the site of the CVOW project). The BiOp makes passing reference to the potential oceanographic impacts of CVOW project, but stops short of analyzing them in terms of their ability to impede NARW nutritional and reproductive success. Worse, because the BiOp treats the issue in such an abstract way, the proper urgency of the matter – which is evident throughout Dr. Hayes' letter – is not conveyed or addressed. In fact, the BiOp utterly fails to heed the closing admonition from Dr. Hayes: “[I]t is critical to assess the range of impacts/threats and stressors to protected species and the degree to which they can be mitigated. This needs to include taking into consideration the chronic state of right whales and the importance of productive foraging habitats to these species. ***These impacts should be thoroughly analyzed in any EIS or other environmental reviews associated with offshore wind development.***” (Sean Hayes, Ph.D., letter to Brian Hooker, May 13, 2022, emphasis added.)

10. The BiOp's Analysis of Operational Noise Impacts Uses Unsubstantiated Assumptions Regarding Noise Propagation Loss Rates, Resulting in an Underreporting of Noise Impacts to NARW and Other Listed Species.

The BiOp's analysis of the Project's noise impacts – construction-related and operational – is flawed because it assumes noise propagation loss factors that are much higher than those typically applied to underwater sound sources. This problem was identified and brought to NOAA Fisheries' attention by Robert Stern, Ph.D., a former chief administrator for the U.S. Department of Energy. We refer specifically to Dr. Stern's letter of April 22, 2023, to Jolie Harrison, Chief of the Permits and Conservation Division, Office of Protected Resources, at NMFS. Dr. Stern wrote the letter to address impacts to NARW from site characterization studies proposed for offshore wind projects in New York and New Jersey, but his concerns apply to any offshore wind project whose noise impacts have been studied using incorrect/unsupported noise propagation loss factors. Dr. Stern's specific complaint is set forth on pages 15-22 of his April 22, 2023, letter. In his discussion of the topic, Dr. Stern shows that NMFS uses a 20 dB noise propagation loss factor when assessing offshore wind projects, whereas it uses a 15 dB loss factor when assessing other sound sources in coastal waters. This discrepancy is far from trivial. In fact, the 5 dB difference in noise propagation loss, when converted to distances from the noise source, extends the Level B noise impact contours for hundreds of meters underwater. For purposes of this 60-day Notice of Intent to Sue, we incorporate by reference the arguments and data set forth in Dr. Stern's letter of April 22, 2023, cited above.

11. The BiOp Fails to Acknowledge that the Individual NARWs Affected by the CVOW Project Are the Same NARWs that Will be Affected by Every Other Offshore Wind Project Along the Atlantic Coast.

BOEM made the strange decision to locate all of the Atlantic Coast wind energy areas (WEAs) in waters used by NARW for migration, foraging, reproduction, calving, socializing, and other life history behaviors. There are only 350 NARW individuals left. Of these, approximately 300 engage in yearly migrations up and down the Atlantic Coast. Once the various BOEM-approved offshore wind projects are operational, these 300 individual whales will be confronted with one offshore wind array after another, much the way salmon encounter multiple dams along the Columbia River and its tributaries. The combined impacts of these wind arrays on each individual NARW will be substantial. For example, once the full complement of offshore wind projects are constructed, a NARW migrating up and/or down the Atlantic Coast will experience Level B noise and/or be forced to use alternate travel routes 20 to 25 times during one migration period, resulting in substantial disruption of life history behaviors and significant wastes of energy, all of which tend to reduce NARW nutritional health, reproductive success, and general survivability. Yet the BiOp fails to discuss or analyze this cumulative impact.

12. BiOp's Reliance on Passive Acoustic Monitoring is Misplaced.

The BiOp acknowledges that project-related pile driving would result in Level A “take” of at least one NARW. The BiOp, however, does not authorize any Level A “take” of NARW and Dominion has not requested such authorization. Instead, Dominion and BOEM have proposed – and NMFS has accepted – a plan to mitigate the Project’s pile driving noise impacts to ensure no Level A “take” of NARW occurs. The key element of this mitigation plan is the use of passive acoustic monitoring (PAM) to detect whales when they swim into areas where pile driving is about to take place or is being conducted. The problem with this approach is that PAM can only detect whales that are actively vocalizing. Like many baleen whales, NARW are not especially vocal. They will go hours, sometimes days, without making a sound. Such whales cannot and will not be detected by PAM, which means they could easily enter the Level A “ensounded” zone and be exposed to damaging pile driving noise without anyone ever knowing it.

In addition, PAM has inherent limitations in terms of its ability to provide accurate and reliable data on marine mammal presence. A study published in August 2020, titled “PAMGuard Quality Assurance Module for Marine Mammal Detection Using Passive Acoustic Monitoring,” explains how PAM systems have a high “miss rate”.¹ For some applications, a high PAM miss rate may not result in mission-failure, but when it comes to protecting a critically endangered species like the

¹ The study was prepared by CSA Ocean Sciences, Inc., with assistance from scientists at the University of St. Andrews (Scotland) and the Scripps Institution of Oceanography, University of California, San Diego. The primary author of the study is Mary Jo Barkaszi of CSA Ocean Sciences, Inc.

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NARW, *any* miss rate is too high, especially when the BiOp has provided no authorization for Level A take of NARW. To comply with the BiOp and avoid violating the ESA, BOEM and Dominion must ensure that not one single NARW is exposed to Level A noise. Accordingly, Dominion's PAM system must bat 1000.00 every day, all day and never miss a whale. The data show, however, that PAM systems are not capable of such a task. And, by the way, the PSOs cannot make up for PAM's deficiencies, because the PSOs cannot detect NARW swimming under the water's surface. Thus, even when the PSOs and the PAM system are operating together, they will not be able to guarantee detection of any and all NARWs that may enter the pile driving zone and be exposed to Level A (or B) noise. The BiOp does not address the scientific data showing that PAM has significant limitations when it comes to detecting endangered whale species. Further, the BiOp does not demonstrate that its reliance on PAM for this purpose is founded on good science. Accordingly, the BiOp is deficient.

Conclusion

For the reasons set forth above, the BiOp for the CVOW project is defective as a matter of law. NMFS should not have issued it, and BOEM should not have accepted it. Both have operated in violation of the ESA. Therefore, we request that NMFS and BOEM withdraw the current BiOp and prepare a new one that corrects the deficiencies identified herein. Should NMFS and/or BOEM fail to do so, CFACT and the Heartland Institute will exercise its option to sue both agencies under ESA's citizen suit provision (16 U.S.C. § 1540(g).) Thank you for your consideration.

Very truly yours,



David P. Hubbard
of
Gatzke Dillon & Ballance LLP

DPH/rlf

cc: Committee for a Constructive Tomorrow
The Heartland Institute
United States Secretary of the Interior
United States Secretary of Commerce
U.S. Army Corps of Engineers
U.S. Coast Guard
U.S. Environmental Protection Agency
U.S. Bureau of Safety and Environmental Enforcement

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