No. 23-1501

UNITED STATES COURT OF APPEALS
FOR THE FIRST CIRCUIT

NANTUCKET RESIDENTS AGAINST TURBINES; VALLORIE OLIVER,

Plaintiffs - Appellants,

v.

U.S. BUREAU OF OCEAN ENERGY MANAGEMENT; NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION; NATIONAL MARINE FISHERIES SERVICE; DEBRA HAALAND, Secretary of the Interior; GINA M. RAIMONDO, Secretary of Commerce; VINEYARD WIND 1, LLC,

Defendants - Appellees.

On Appeal from the United States District Court for the District of Massachusetts, No. 1:21-cv-11390-IT – Hon. Indira Talwani

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OPENING BRIEF OF APPELLANTS, NANTUCKET RESIDENTS AGAINST TURBINES, ET AL.

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CORPORATE DISCLOSURE STATEMENT

Pursuant to Fed. R. App. P. 26(1), Appellants submit the following Corporate Disclosure Statement. Appellant Nantucket Residents Against Turbines is a 501(c)(3) non-profit, non-governmental corporation that has no parent corporation, nor is there any publicly held corporation that owns 10% or more of this party's stock.

Dated: September 23, 2023 *<u>/s/ Thomas Stavola Jr. Esq.</u>*

Thomas Stavola Jr. Esq.

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ORAL ARGUMENT REQUEST

Because this appeal raises important issues, and oral argument may aid the Court's consideration, ACK RATs respectfully requests that the Court schedule an oral argument.

STATEMENT OF JURISDICTION

The U.S. District Court for the District of Massachusetts had jurisdiction over this action pursuant to 16 U.S.C. § 1540(g) (Endangered Species Act, citizen suit provision); 28 U.S.C. § 1331 (federal questions), 28 U.S.C. § 1346 (United States as defendant), 28 U.S.C. § 2201 (declaratory judgment), and 28 U.S.C. § 2202 (injunctive relief); 42 U.S.C. §4321 et seq. (National Environmental Policy Act), and 5 U.S.C. § 701 through 706 (Administrative Procedures Act).

Venue was proper in the district court under 28 U.S.C. § 1391(e). The district court's order of May 17, 2023 denied Plaintiffs' Motion for Summary Judgement. Plaintiffs timely filed a notice of appeal on June 13, 2023. This Court has jurisdiction over this appeal of a final decision of the District Court, pursuant to 28 U.S.C. §1291.

STATEMENT OF THE ISSUES PRESENTED FOR REVIEW

The pertinent issues are whether:

1. The National Marine Fisheries Service ("NMFS") in issuing the 2021 Biological Opinion ("BiOp"), failed to adequately consider the Vineyard Wind Project's ("Project") impact on the North Atlantic Right Whale ("NARW") and instead concluding that the Project would not jeopardize

the species in violation of Section 7(a)(2) of the Endangered Species Act ("ESA");

2. The NMFS and the Bureau of Ocean Energy Management ("BOEM") violated and continue to violate Section 7(a)(2) of the ESA by failing to ensure through consultation that BOEM's approval of impacts of the Project will not jeopardize the NARW;
3. BOEM violated the National Environmental Policy Act ("NEPA") by failing to take the required hard look at the environmental consequences to the NARWs and issuing a final environmental impact statement ("EIS") that parroted the flawed analysis of the BiOp.

STATEMENT OF THE CASE

This appeal concerns Plaintiff Nantucket Residents Against Turbines ("ACK RATS") challenge of the approval of the Vineyard Wind I offshore wind energy project. ACK RATs filed their complaint in the District Court on August 25, 2021, and thereupon their amended complaint on February 10, 2022. The amended complaint sought orders vacating and setting aside the October 18, 2021 BiOp, the Record of Decision ("ROD") and attendant final EIS for the Vineyard Wind Project, as well as orders obviating BOEM and NMFS from issuing any permit, approval or other action in the Vineyard Wind area of potential effect ("APE") (or elsewhere that

could adversely affect federally-listed species) until an adequate BiOp is completed, and enjoining BOEM from issuing any permit, approval or other action that might adversely affect the human or natural environment until an adequate EIS is completed.

The factual basis of the case is the imperiled NARW, with fewer than 350 whales remaining in population, a population subject to interminable threats from vessel strikes, entanglement in fishing gear, and other anthropogenic threats, eventuating in heightened mortality rates and decreased reproduction rates for the NARW. Plaintiff Vallorie Oliver of ACK RATs is a resident of Nantucket, has observed NARW in the past and maintains concrete plans to observe same in the future. ADD.000025-000026. As such, her concrete and particularized legally protected interest has been harmed, and therefore, ACK RATs the organization has been injured as well , as conceded in the District Court Order. *Id.*

ACK RATs contends the Project's environmental review documents prepared by BOEM and NMFS were highly deficient in innumerable ways, in contravention of both the ESA and NEPA. Pertinent to the case at bar, the environmental review process initiated with BOEM publishing the Draft EIS on December 7, 2018. ADD.000004. Thereafter, on June 12, 2020, BOEM prepared a Supplemental DEIS in consideration of comments received during the NEPA process. ADD.000005-000006. BOEM's final EIS became available on March 12, 2021. ADD.000006.

ACK RATs was entirely unsatisfied with the amended environmental impact statements, as they continued to exhibit the same deficiencies regarding inadequacy of risk assessment to NARWs, inter alia. The BiOp was initially issued by NMFS on September 11, 2020, and following reinstatement of biological consultation with BOEM and NMFS, a new BiOp eventuated on November 1, 2021. ADD.000007-000009.

The reinstated 2021 BiOp and the FEIS documents served as the fulcrum of the District Court case, and accordingly, this appeal, as such documents deviate from the statutorily prescribed stipulations of both the ESA and NEPA. ACK RATs and Defendants submitted cross-motions for summary judgements, replies associated therewith, and a Joint Appendix comprising over 13,000 pages. Appendix (ECF 117). Thereupon, the critical issues in dispute were argued at a Motion Hearing on January 24, 2023. ADD.000053.

Of greatest significance to the instant appeal is the NMFS' and BOEM's abdication of their statutorily imposed duties to consider the best scientific evidence available and ensure the NARWs would not be jeopardized by the Project, and NMFS' and BOEM's derelictions in their failure to analyze several, salient risks posed to the NARW. Moreover, as discussed *infra*, NMFS and BOEM assign far too much risk reduction efficacy to the putative suite of mitigation protocols. The District Court explained that such measures cannot be examined in a vacuum

(ADD.000046), but even when assessed synergistically, those protocols are grossly inadequate in terms of countervailing the risks presented by vessel strikes, pile driving noise, soft starts, and entanglements.

Rather than objectively examine all the relevant evidence before them, the NMFS and BOEM arbitrarily and capriciously predicated their BiOp and FEIS on insufficient data, neglecting to adequately analyze integral aspects of the problem, including baseline data, entanglement risk, pile driving noise, operational turbine noise, and vessel strikes. The District Court erred in its determination that agency deference applied in all the hitherto mentioned aspects of the analysis. While the jurisprudential doctrine of agency deference creates a rebuttable presumption of accuracy, it is not a vehicle whereby agency determinations should automatically be greenlighted without proper regard to critical aspects of the issue. Absent an order from this Court reversing the District Court summary judgement denial, the Project, which is now in the inchoate stages of construction, will be permitted to continue, sending the already highly endangered NARW careening further down the road toward extinction.

SUMMARY OF THE ARGUMENT

BOEM and NMFS acted arbitrarily and capriciously in their environmental review of the Vineyard Wind Project. NMFS violated the ESA by issuing a legally deficient BiOp that incorrectly concluded that the Project's impact would not jeopardize the NARW. BOEM contravened NEPA by issuing a legally deficient final EIS that mirrored the BiOp's flawed conclusions. BOEM and NMFS violated the ESA by their dual failure to ensure through consultation that BOEM's approval of the impacts of the Project would not jeopardize the NARW. The NARW, an already highly endangered species, will be sent careening further on its peregrination toward extinction due to the NMFS' and BOEM's arbitrary and capricious environmental review of the Project. As the BiOp explicitly admits regarding the NARW:

> "Given the above information. North Atlantic right whales' resilience to future perturbations is expected to be very low (Hayes et al. 2018a) . . . Consistent with this, recent modelling efforts indicate that the species may decline towards extinction if prey conditions worsen and anthropogenic mortalities are not reduced." ADD.000339.

As such, the BiOp itself acknowledges that the NARW will continue declining toward extinction if anthropogenic mortalities are not reduced, yet, the BiOp and FEIS arbitrarily and capriciously greenlighted the Project's impacts, with little focus on the very real and substantial risks posed by the Project.

First, NMFS and BOEM violated the ESA through their failure to rely on the best scientific and commercial data available. ACK RATs adduced numerous scientific studies in their Summary Judgement briefs attesting to the significantly enhanced risk that the Project would pose to NARW. The agencies were aware of these studies, but refrained from genuinely considering their data and importing same into the environmental review and attendant conclusions of the BiOp and FEIS. For example, the studies demonstrate that the vast, vast majority of the NARW population is present in, and relies heavily on, the RI/MA wind energy area, within which the Project is located. Over 90% of the NARW population relies on this relatively small region. The NARW has experienced a significant amount of mortality in recent years (nigh 5% loss in total population), as discussed *infra*, and offshore wind projects catalyze various pernicious perturbations such as habitat changes, water column stratification, increased vessel noise, and increased vessel traffic and risk of collisions with whales. The BiOp and FEIS did not delve deeply into these issues.

Another critical omission from the BiOp and FEIS is discussion on the increasing, and overall high prevalence of NARW in the critical Project area during the June 1-October 31 period. In fact, the Quintana-Rizzo study found that the month of August featured the second highest NARW sighting rate of the calendar year, contrary to Defendants' assertions that NARWs are low during the June-November

1 window.[1] This is the period during which the pile driving activities are set to occur. But the BiOp and FEIS assume low numbers of NARW during this period. Many of the other studies ACK RATs cited demonstrate the high amount of commercial fishing in the area surrounding the Project and its attendant threat to NARW; that the calving interval is disturbingly low 7.6 years; that the NARW deaths outnumber births by 3:2; and that the potential biological removal level is such that the NARW cannot absorb even one human induced death per year and maintain its already very low population. The District Court simply deferred to the agencies determinations as to which scientific information to employ or discard, incorrectly relying on the agency deference doctrine when the agencies abrogated their statutorily imposed duties to consider the biological data before them.

Second, the District Court erroneously deferred to the agencies in their conclusions that the Project's suite of mitigation protocols would adequately obviate NARWs from suffering serious injury or death by way of vessel strike and pile driving noise. The District Court - in its opinion denying ACK RAT's summary judgement motion - averred that ACK RATs cannot challenge the procedures in a vacuum. But as per the available data and case precedent citing to passages from the

[1] ADD.000460, ADD.000314, ADD.000315, ADD.000317.

NMFS' rule itself, it is ostensible that the putative suite of mitigation techniques is ineffectual even when considered synergistically.

In fact, the efficacy of the acclaimed protected species observer is only a 9% detection probability, and the efficacy of the passive acoustic monitoring only 25% detection probability. Importantly, the protected species observers only have the ability to "see" NARW out to 1.5 km from the pile driving site, and the passive acoustic monitoring is only employed 3.2-5 km from the pile driving site. Meanwhile, the ensonified zone of Level A harassment noise extends to 7.5 km from the construction site. So, the highly ineffective mitigation protocols will only be employed in a part of the ensonified area, and within the ensonified zone overlaid with the putative mitigation measures, most NARWs will not be successfully detected.

Third, the agencies greatly underestimated the risk of entanglement posed by commercial fishing operations in the area surrounding the Project. The District Court incorrectly deferred to the agencies in their conclusion that the risk of entanglement was so low such that it could not be meaningfully measured. The data belies this assumption.

Fourth, the agencies abdicated their duty to properly consider operational turbine noise impacts; they adopted an older study rather than a more recent study

that considered the same turbines Vineyard Wind seeks to construct. This appears to be a form of confirmation bias, namely, the data endorsed was ostensibly more auspicious for the Project. This is not an objective consideration of all the relevant biological information available, pursuant to statutory and regulatory mandate.

And fifth, the agencies failed to properly consider the degraded baseline condition of the NARW in their recovery analyses. If one does not assess the starting point veraciously, then it will be nigh impossible to accurately determine the influence of ensuing Project impacts.

In all of the above, the District Court deferred to the agencies' conclusions and incorrectly determined that they complied with both the ESA and NEPA. In reality, this was an archetypal case of arbitrary and capricious environmental review, as the agencies failed to utilize the best scientific and commercial data available, and failed to adequately consider a number of important, significant risks to the NARW induced by the Project, and incorrectly found that the suite of mitigation measures would adequately obviate NARW injury and death. The District Court's denial of ACK RAT's summary judgement should be reversed, and the BiOp, FEIS, and attendant record of decision for Vineyard Wind project should be set aside.

ARGUMENT

I. STANDARD OF REVIEW

When examining a grant of summary judgement, the Court undertakes a "de novo" review. *Defenders of Wildlife v. Zinke*, 856 F.3d 1246, 1248 (9th Cir. 2017).

Agency determinations under the ESA and NEPA are reviewed pursuant to the APA, which requires that an agency action be "upheld unless it is found to be 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.'" *Id.* at 1247 (citing *Pac. Coast Fed'n of Fishermen's Ass'ns, Inc. v. Nat'l Marine Fisheries Serv.*, 265 F.3d 1028, 1034 (9th Cir. 2001). However, the parlance in *Conservation Cong. v. United States Forest Serv.*, 720 F.3d 1048 (9th Cir. 2013) is more pertinent and salutary to the analysis herein, namely, that an agency action is arbitrary and capricious if it, "relied on factors Congress did not intend it to consider, entirely **failed to consider an important aspect of the problem**, or **offered an explanation that runs counter to the evidence before the agency** or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise (emphasis added)." *Id.* at 1054.

The APA serves as the vehicle for ACK RATs' NEPA and ESA challenges,[2] and notwithstanding the deferential nature of the arbitrary and capricious standard, the agency is required to "articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.'" *Audubon Soc'y of Portland v. Haaland*, 40 F.4th 917 (9th Cir. 2022) (citing *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962))).

Pursuant to the ESA's stipulations in 16 USCS § 1536(a)(2), agencies must utilize the "best scientific and commercial data available" in determining that an agency action will not jeopardize the continued existence of any endangered species or threatened species. This "best data available" stipulation obviates an agency from "disregarding available scientific evidence that is in some way better than the evidence [it] relies on." *Kern Cty. Farm Bureau v. Allen*, 450 F.3d 1072, 1080 (9th Cir. 2006). The agency must "not ignore available biological information." *Id.* at 1080-81 (quoting *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1988). Moreover, a BiOp is arbitrary and capricious in contravention of the ESA if it "fails to consider the relevant factors and articulate a rational connection between the facts found and

[2] "We review an agency's compliance with the ESA . . . and NEPA under the 'arbitrary and capricious' standard of the APA." *Defs. of Wildlife v. Zinke*, 856 F.3d 1248, 1256-57 (9th Cir. 2017).

the choice made." *Ctr. for Biological Diversity v. United States BLM*, 698 F.3d 1101, 1121 (9th Cir. 2012) (citing *Pac. Coast Fed'n of Fishermen's Ass'ns*, 265 F.3d at 1034 (9th Cir. 2001) (quoting *Natural Res. Def. Council v. U.S. Dep't of the Interior,* 113 F.3d 1121, 1124 (9th Cir. 1997))).

Concordantly, NEPA challenges are analyzed through the lens of the APA's arbitrary, capricious and abuse of discretion standard, and where courts are charged with reviewing the adequacy of an EIS under NEPA, "a rule of reason" analysis is employed, "to determine whether the discussion of the environmental consequences included in the EIS is sufficiently thorough." *Ctr. for Biological Diversity v. Bernhardt*, 982 F.3d 723, 734 (9th Cir. 2020) (quoting *Kern v. United States BLM*, 284 F.3d 1062, 1071 (9th Cir. 2002)).

In view of the fact that ACK RATs' surviving noticed claim under NEPA is that the final EIS "parrots the flawed analysis and conclusions set forth in the BiOp," the argument, *infra*, is structured by way of consideration of EIS (NEPA) and ESA (BiOp) violations together (as was undertaken by the District Court).

II. BOEM VIOLATED NEPA BY ISSUING A LEGALLY DEFICIENT EIS, NMFS VIOLATED ESA THROUGH ITS LEGALLY INADEQUATE BIOP WHICH CONCLUDED NO JEOPARDY, AND BOTH BOEM AND NMFS CONTRAVENED THE ESA BY THEIR FAILURE TO ENSURE THROUH CONSULTATION THAT THE PROJECT'S IMPACTS WOULD NOT JEOPARDIZE THE NARW

A. NMFS and BOEM violated the ESA through their failure to rely on the best scientific and commercial data available

Pursuant to the ESA, 16 USCS § 1536(a)(2), and its implementing regulations, 50 CFR 402.14(g)(8), agencies must employ the best scientific and commercial data available in their ascertainment of jeopardy, and the NMFS and BOEM have abdicated that duty through their promulgation and reliance on the 2021 BiOp. The District Court cites *Miccosukee Tribe of Indians v. United States*, 566 F.3d 1257, 1265 (11th Cir. 2009) in defending its assertion that the decision of which studies are the 'best available' is "itself a scientific determination deserving deference." ADD.000039. However, the *Miccosukee* court explained that the species should be accorded the benefit of the doubt in the absence of abundant data, "[t]he Conner opinion does not suggest that there is any presumption in favor of the species **if, as in this case, there is abundant data** [emphasis added]." *Id.* at 1267.

In *Conner v. Burford*, 848 F.2d 1441 (9th Cir. 1988), the court therein found that the Fish and Wildlife Service's BiOp was not predicated upon abundant data, as

it failed to consider certain biological information, which rendered its determination discordant with the "best science" standard.[3]

As is the case here, NMFS and BOEM failed to consider certain salient information. First, the Quintana-Rizzo 2021 ("QR") study,[4] which ACK RATs discussed in both their Motion for Summary Judgement Memorandum (ECF 89), and Reply in Support of their Summary Judgement (ECF 105), epitomizes the "best available scientific data" standard. It expounds upon multifarious critical facts that should have been considered in the BiOp. For example, it discusses the recent shifts in right whale distribution and foraging behavior, namely that NARWs are becoming more reliant on the southern New England region for survival, and that the "enormous development [offshore wind energy leases] could have a local impact on right whales at a critical time when they are becoming more reliant on the region." APPX.000450. The BiOp does not discuss the critical importance of this region for the NARW survival. *Id.*

ACK RATs described numerous other compelling points from the study; first, is the fact that offshore wind projects catalyze various perturbations such as habitat

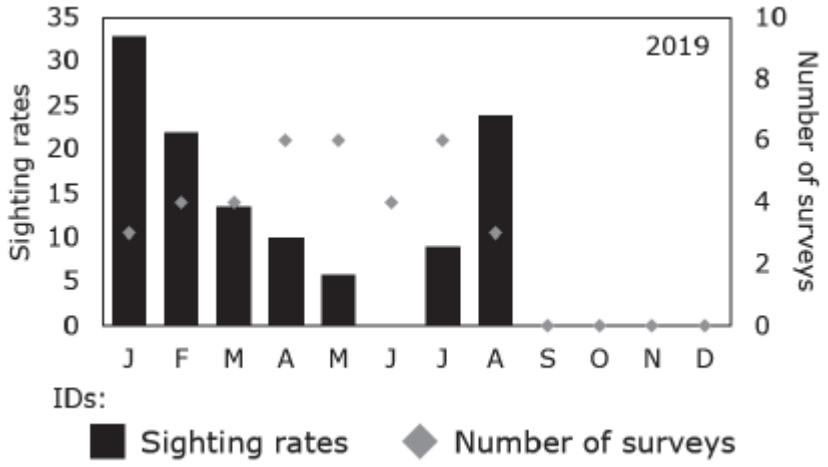
[3] "…[T]he FWS **cannot ignore available biological information** or fail to develop projections of oil and gas activities which may indicate potential conflicts between development and the preservation of protected species [emphasis added]." *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1988) (holding that FWS violated the ESA through failure to consider the best information).
[4] APPX. 000449 – 000466.

changes, water column stratification, increased vessel noise, increased vessel traffic and risk of collisions with whales, "Collectively, these perturbations could affect the use of this region by right whales as well as influence their migratory movement throughout the mid-Atlantic region (Schick et al. 2009)." APPX.000451. The BiOp does not assess the influence of these perturbations on the NARW's use of the RI/MA wind energy area ("WEA") or its migration through the mid-Atlantic. *Id.*

Next, the QR study identified 327 unique NARW[5] in the RI/MA WEA, **comprising 93% of their total** remaining population [emphasis added].[6] The BiOp entirely omits this critical fact. Nearly all of the remaining NARW utilize this diminutive region as a feeding area; the NARW are not merely nomads passing through it. *Id.* The study further explains that 16 of 327 NARW had died[7] as of December 2020, a nearly 5% loss in their population. This should have been discussed in baseline condition analysis (see, *infra*). Another salient finding of QR was that NARW **sighting rates were high during the summer months** [emphasis added], in particular August, notwithstanding the climax of activity in January. APPX.000456. In fact, sighting rates of NARWs were at their second highest rates

[5] APPX.000455.
[6] "The North Atlantic right whale is one of the world's most endangered large whale species; the latest preliminary estimate suggests there are fewer than 350 remaining." See: https://www.fisheries.noaa.gov/species/north-atlantic-right-whale.
[7] APPX.000455.

of the year in the month of August – second only to the month of January. This runs contrary to Defendants assertions of low NARW prevalence during the June 1-October 31 period. Approximately 25 NARWs were sighted in August in 2019,[8] which is significant given the diminutive total population:



Defendants attempted, ineffectively, to contest this, "Vineyard Wind showed that pile driving would take place at a time when very few, if any, right whales would be near the Project Area." ECF 115, Vineyard Reply in Support of Motion for Summary Judgement, p. 8.

But defendants misconceive the reality of the situation: while comparatively, numbers are higher in the winter (January), NARW presence is still high during the time of year wherein pile driving is set to (and is) occurring. In the BiOp's discussion of mitigation measures, it, too, suggests that NARW numbers are low during June

[8] APPX.000456.

through November 1, "Right whale occurrence in the [wind development area] WDA is lowest during the May 15-October 31, period (Roberts et al. 2020)." ADD.000460. But the QR study belies that conventional wisdom. The QR study underscores that the increasing NARW presence in summer and autumn, "deserves special attention since this **will overlap with the current schedule for pile driving for turbine foundations in the next few years, the phase of construction considered to have the greatest impact [emphasis added].**" APPX.000462. The QR study explicitly characterizes the Project area as a NARW "hotspot" yet the BiOp provides no evaluation of this. APPX.000452–000453, APPX.000457. Moreover, the unremitting and increasing presence of NARWs in the Project area is highly redolent of the fact that the area is rich in copepods and is a preferred feeding ground for the whale. APPX.000450 – 000463.

The second study NMFS and BOEM fail to consider is the Atlantic Large Whale Take Reduction Team Key Outcomes Memorandum ("TRT") which examines the shift of NARW feeding patterns into "Area 537" that surrounds the Project area. This "Area 537" is replete with commercial fishing operations which pose a risk to NARWs, including "approximately 987 to 2,650 vertical [buoy] lines" in the water at a given time, with the highest number, 1,717 to 2,650 lines, fixed in place May-October, a time period congruous with Project pile driving. ADD.000314 - ADD.000316, ADD.000309, ADD.000583. The BiOp cites these buoy line data but

only discusses it in the context of impacts to lobster, crab, and black sea bass. ADD.000581-000584. The BiOp does not discuss the potential for pile driving to compel NARW into this Area 537 wherein the density of fishing gear and vessel use is high.

The third and fourth key studies BOEM and NMFS fail to consider - in violation of the statutory stipulation to utilize the best science available - are "The North Atlantic Right Whale Consortium 2020 Annual Report Card" and "NOAA Technical Memorandum NMFS-NE-271, The US Atlantic and Gulf of Mexico Marine Mammal Stock Assessments 2020," which provide integral information about the NARW's population trends.[9] The calving interval for NARW is 7.6 years (which is defined as the time period from the birth of one calf to the next), and "detected mortalities outnumbered births 3:2." APPX.000144, APPX.000148 – table 2. Moreover, the NOAA Stock Assessment provides that NARW have shifted location and are "seen in large numbers in a region south of Martha's Vineyard and Nantucket Islands." NOAA Stock Assessment, p. 12. Furthermore, in view of the NARW's potential biological removal ("PBR") of 0.8[10] "human-caused mortality or serious injury for this stock must be considered significant." *Id.*, p 25.

[9] https://media.fisheries.noaa.gov/2021-07/Atlantic%202020%20SARs%20Final.pdf?null%09

[10] PBR is the maximum number of animals that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimal sustainable

The District Court averred that the hereinabove data from at least two of these studies were "used" and "considered" by BOEM and NMFS (ADD.000040), but the definition of "use" is "to put into action or service, avail oneself of, employ,"[11] and the definition of "consider" is "to think about carefully. . .such as. . . with regard to taking some action."[12] The agencies' passing mention of the data is not tantamount to "use" per the statutory and regulatory stipulations of the ESA. 50 CFR 402.14(g)(8). While the District Court cited to *Boston Redevelopment Auth. v. Nat'l Park Serv.*, 838 F.3d 42 (1st Cir. 2016) as support for its characterization of NMFS' analysis as "considered determinations" (ADD.000040), that very same case acknowledges that an agency action is arbitrary and capricious if it "**failed to consider pertinent aspects of the problem** [emphasis added]," which is very much the case here. *Boston Redevelopment Auth.*, 838 F.3d at 47.

Additionally, with respect to the NOAA 2020 Stock Assessment study, the District Court concedes that the BiOp does not rely on it, and explains that NFMS should be accorded deference in discounting it "because the information contained

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population size. Given a 0.8 (less than 1) PBR for NARWs, this – practically - means that the goal should be no human caused fatalities.

[11] https://www.merriam-webster.com/dictionary/use#:~:text=use%2C%20employ%2C%20utilize%20mean%20to,or%20instrument%20to%20an%20end.

[12] https://www.merriam-webster.com/dictionary/consider#:~:text=1,regard%20to%20taking%20some%20action.

in the Stock Assessment was from 2018, it was appropriate for NMFS to rely on more recent scientific studies." ADD.000042. If recency is a prominent touchstone against which a study's utility is measured, then why was the operational noise, Stober study,[13] published in 2021, rejected, in favor of Elliott, et al. (2019), a less recent study? ECF 100, Vineyard Wind Memorandum of Law in Support of Motion for Summary Judgement, p. 10. While Defendants asserted to the contrary, the fact is, the Stober study considered the proper turbines. Vineyard Wind suggested that the justification for NMFS' rejection of Stober was because it only assessed gearbox-driven turbines, not the quieter direct-drive turbines Vineyard Wind planned to install.[14] But that was and is counterfactual: even the BiOp concedes that Stober analyzed the direct-drive turbines. ADD.000435.

This type of unsubstantiated cherry-picking of studies exemplifies the arbitrary and capricious conduct of the NMFS and BOEM in their consideration of the available scientific information. The District Court excused this unsubstantiated study selectivity, for example, stating, "to the extent NMFS determined that it need not consider the TRT Key Outcomes Memorandum, that determination is entitled to deference, particularly where the Memorandum was the outcome of a meeting

[13] APPX. 000588 – 000593.
[14] Vineyard Wind Motion for Summary Judgement Memorandum of Law, ECF 100, p. 10.

NMFS convened. . .” ADD.000042. However, the agencies, in deciding which studies’ conclusions to adopt must “articulate a satisfactory explanation for its action including a ‘rational connection between the facts found and the choice made.’” *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (quoting *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962)). But no such satisfactory explanation was provided for the agencies’ lack of consideration of any of the hereinabove discussed studies. As such, BOEM and NMFS arbitrarily and capriciously failed to utilize the best available scientific and commercial data in their jeopardy analyses pursuant to the ESA.

B. NMFS and BOEM violated the ESA and NEPA by arbitrarily and capriciously finding that the suite of mitigation measures would sufficiently protect NARW from vessel strikes and pile driving noise

Both the BiOp and the final EIS failed to adequately assess the risk posed by vessel strikes and pile driving noise to NARWs. Defendants’ primary argument is that the “suite of mitigation measures” will obviate NARW serious injury or death. This argument is unsupportable for the ensuing reasons.

At the outset, the following is irrefragable: the Level A[15] harassment ensonified area extends out to 7.25 km from the pile driving site, as noted by the

[15] Noise that has the potential to injure a marine mammal.

BiOp,[16] under the 6 dB of attenuation condition via the bubble curtain (undisputed by Defendants).[17] From June 1 to October 31, the time period during which most pile driving is expected to occur, the BiOp requires Vineyard Wind to establish a NARW "clearance zone" using passive acoustic monitoring ("PAM"), and this clearance zone extends only 5 km from the pile driving site.[18] But this clearance zone distance is established before pile driving, and the clearance zone during pile driving (i.e., "shutdown" zone), for June 1 to October 31 is only 3.2 km.[19] This means that during active pile driving, "no shut-down order will be given unless a whale is detected within that 3.2-km zone. Whales swimming outside the 3.2-km shut-down zone but within the 7.25-km Level A noise contour will be exposed to Level A noise, and no shut-down order will be given to protect them." ECF 105, Plaintiffs' Reply in Support of Motion for Summary Judgement, p. 4.

The BiOp notes that construction of the Project will require circa 102 days of pile driving to install the wind turbines on the sea floor. ADD.000428-000429. It acknowledges that pile driving catalyzes repeated bursts of high intensity noise that

[16] ADD.000445, ADD.000456, ADD.000460.
[17] Federal Defendants' Reply in Support of Motion for Summary Judgement, ECF 114, p. 27; Motion Hearing Transcript, p. 60.
[18]ADD.000456. The PAM clearance zone before pile driving begins is 5 km for monopiles and 3.2 km for jacket piles. During pile driving, the shut-down zone is 3.2 km for all foundation types. ADD.000315.
[19] ADD.000456.

can inimically affect marine mammals, such as NARWs. ADD.000464. It further determined that the Project's 102 days of pile driving could expose 1.39 NARWs to Level A harassment noise (causes auditory injury and permanent hearing loss). ADD.000448 - Table 7.1.12, ADD.000453 - Table 7.1.16. This noise constitutes a "Take" under the ESA, yet the BiOp concludes that no takes will occur due to the mitigation measures. ADD.000663, ADD.000460. This is an incorrect conclusion as discussed below. Further, given the fact that the NARW cannot absorb even 1 human caused death and maintain their population (more in Section E *infra*), and the fact that a deaf whale is likely a dead whale, these pile driving procedures will likely push the NARW further toward extinction. Defendants Vineyard and the agencies rely upon mitigation measures as their putative fail-safe to obviate NARW Level A takes, injury, and death.

Defendants generally cite to three principal mitigation protocols in their putative suite of techniques which purportedly guard against injury or death to NARWs: PAM, protected species observers ("PSO"), and vessel speed restrictions. Regarding vessel speed restrictions, ACK RATs primary contentions are that the 10-knot speed restriction is inapplicable to crew transfer vessels[20] and that all vessels can disregard the 10-knot restriction when transiting from mainland Massachusetts

[20] ADD.000015; ADD.000307, ADD.000528. BiOp - BOEM 77304, 7752

to the Project.[21] It is incontrovertible, and conceded by the BiOp, that the optimal prophylactic protocol for vessel strikes is vessel speed restrictions of 10 knots or less.[22] Yet, the majority of the Project's anticipated vessel trips comprise crew transfer vessels, which average 90 feet in length and travel at 25 knots, which significantly supersedes the 15-knot threshold known to be 100% fatal to NARW.[23]

Defendants contend the PSOs and PAM will countermand the vessel strike risk and the pile-driving noise within the clearance zones. In *Native Village of Chickaloon v. Nat'l Marine Fisheries Serv.*, 947 F. Supp. 2d 1031 (D. Alaska 2013), the Court discussed defendant Apache Alaska Corporation's acknowledgement regarding the material limitations of acoustic monitoring:

> "Apache's application acoustic monitoring has limitations for detecting marine mammals because 'it requires that the animals produce sounds . . . [and] it requires those sounds to be of sufficient amplitude to be detected at the monitoring location.' The 'received levels of the biological sounds [also must] exceed background noise and other measurement noise. . .'" *Id.* at 1043-44.

As was thoroughly discussed by ACK RATs in their summary judgement filings, PAM requires that the NARW actively vocalize as a first condition, but even if they do vocalize, those vocalizations must still surmount background noise and

[21] ADD.000307.
[22] ADD.000522, ADD.000527.
[23] Plaintiffs' Reply in Support of Summary Judgement, ECF 105, p. 5-6, citing Vineyard Wind DEIS, BOEM 34746, 34861. See APPX.000100, APPX.000105.

other measurement noise, and furthermore, the vocalizations must exhibit sufficient magnitude to be received at the monitoring site.

Moreover, and importantly, in *NRDC v. Pritzker,* 62 F. Supp. 3d 969 (N.D. Cal. 2014), plaintiff environmental groups sought injunctive relief against federal officials to limit the Navy's use of low frequency sonar, which plaintiffs therein contended was harming marine mammals. The court discussed the efficacy of many of the same mitigation measures which are the fulcrum of this case, and it found, directly quoting a NMFS final rule, that **passive acoustic [monitoring] exhibits only a 25 percent detection probability, and visual monitoring exhibits an estimated 9 percent detection probability** [emphasis added]. *Id.* at 996, quoting 77 FR 50290.

Therefore, whales swimming beyond 3.2-5 km will be exposed to Level A noise pre-pile driving initiation, whales swimming beyond 3.2 km will be exposed to Level A noise during pile driving. As to whales within 3.2 km, PAM imparts only 25% detection efficacy. PSOs can only observe to 1.5 km,[24] and its efficacy is only 9%. So, at most, within the equal to or less than 1.5 km PSO/PAM overlap zone, there might be a combined PSO/PAM efficacy of 34% (25% + 9%), which is very

[24] ADD.00046, "At distances more than 1,500 m from the pile the observers' ability to detect whales is reduced and observations beyond this distance may be unreliable and incomplete (Roberts et al. 2016) . . ."

low, and certainly, too low to serve as sufficient countervailing mechanisms (as Defendants assert) to the risks posed by vessel strikes and pile driving noise. Thus, even within 1.5 km, most NARWs will be exposed to Level A harassment noise.

Finally, Vineyard and Federal Defendants characterize the "soft start" procedure[25] as another technique in the suite of mitigation measures.[26] While they allege the soft-start exhibits efficacy, the BiOp itself concedes there is no such evidence of efficacy:

> "However, we are not able to predict the extent to which the soft start will reduce the number of whales exposed to pile driving noise . . . we are not able to modify the estimated take numbers to account for any benefit provided by the soft start."[27]

As such, in reality, the BiOp underscores that confidence of "soft start" efficacy is far too low to result in an impact to the total take estimate of NARWs. In other words, there's no empirical evidence it works.

And as ACK RATs noted in its Summary Judgement Reply regarding the FEIS:

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[25] "Soft start procedure is designed to provide a warning to marine mammals or provide them with a chance to leave the area prior to the hammer operating at full capacity." ADD.000461.

[26] Federal Defendants Reply in Support of Motion for Summary Judgement, ECF 114, p. 23, "soft-start procedures are an integral part of pile driving intended to reduce impacts to right whales." Vineyard Wind Motion for Summary Judgement Memorandum, ECF 100, p. 15, "The "soft start" process is one of these "minimization measures."

[27] ADD.000461.

> "[the] EIS mixes its discussion of project impacts on right whales with its discussion of mitigation measures for those impacts. Thus, the quality and accuracy of the EIS's analysis of pile driving noise and vessel strikes on right whales is directly determined by the adequacy of the mitigation measures recommended to address those impacts."[28]

Accordingly, the BiOp's and FEIS' conclusions that the suite of mitigation measures will prevent jeopardy to NARWs is arbitrary and capricious, as even when considered synergistically and not in a "vacuum," the protocols exhibit very poor efficacy. Thus, the District Court erred in deferring to BOEM and NMFS.

C. NMFS and BOEM violated the ESA and NEPA through inadequate consideration of entanglement risk

ACK RATs have asserted that neither the BiOp or FEIS adequately considered the risk of fishing gear entanglement posed by the Project, directly by way of Vineyard Wind's fishery studies or indirectly through Vineyard's "soft-start" procedures which can drive NARWs into high-risk zones.[29] NMFS alleges that entanglement risk is so diminutive it "cannot be meaningfully measured."[30] The District Court, again, expressed dismissiveness of ACK RAT's claims, and deferred

[28] ECF 105, Plaintiffs' Reply in Support of Motion for Summary Judgement, p. 60.
[29] ADD.000048.
[30] ADD.000584.

to the agencies. However, the agencies "failed to consider an important aspect of the problem." *Marasco & Nesselbush, LLP v. Collins*, 6 F.4th 150 (1st Cir. 2021).

As explicated in *Me. Lobstermen's Ass'n v. Nat'l Marine Fisheries Serv.*, 70 F.4th 582, 587 (D.C. Cir. 2023), "most NARWs die from vessel strikes or entanglement in fishing gear. Entanglement may also reduce calving rates." The court therein quotes data from the NMFS which indicates that two documented entanglement NARW deaths occurred 2010-18 in the U.S., but importantly, observed NARW deaths only account for 36% of actual deaths.[31] As per the data the court cited, there have been circa 48 documented NARW entanglement deaths 2010-18 (see below chart), which, when calibrating for the 36% of actual, yields 133 actual NARW deaths by entanglement for that 2010-18 period (and 133 is 38% of the 350 total population). In view of the fact that over 90% of the NARW population is active in the Rhode Island/Massachusetts wind energy area, how can entanglement risk possibly be adjudged as so small it "cannot meaningfully be measured"? It follows, a fortiori, that most of the NARW deaths ascribed to entanglements (which are significant) ultimately have their origin in the southern New England region. As

[31] *Id.* at 589, citing Richard M. Pace et al., *Cryptic Mortality of North Atlantic Right Whales*, 3 Conservation Sci. and Practice 1, 6 (2021), "We used an abundance estimation model to derive estimates of cryptic mortality for North Atlantic right whales and found that observed carcasses accounted for only **36% of all estimated death during 1990–2017 [emphasis added]**." Study commissioned by NMFS.

such, the BiOp and FEIS arbitrarily and capriciously failed to consider the more significant risk posed by entanglements in the Project area.

D. NMFS and BOEM failed to adequately consider risk of operational noise in violation of ESA and NEPA

Both the BiOp and FEIS failed to adequately consider the impacts of the Project's operational noise on NARW, due in large party to the agencies' lack of consideration of the Stober study.[32] Vineyard avers that Stober was discounted because it only "assessed gearbox-driven turbines, not the quieter 'direct-drive' turbines Vineyard Wind plans to install."[33] But this is apocryphal, as the Stober study **did assess** those turbines [emphasis added].[34] The BiOp acknowledges that Stober assessed the direct-drive turbines Vineyard plans to employ.[35] The fact is: Stober analyzed the underwater noise ramifications of turbines generating more than 10 MW of power, which is highly analogous to the Project's intended power capacity of 14 MW. Thus, the Stober analysis provides a veracious proxy for the Vineyard project. Stober's analysis, *inter alia*, cited the deleterious effect of low frequency sound emanated by operational turbines on baleen whales such as the NARW.[36]

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[32] APPX. 000588 – 000593.
[33] Vineyard Wind Memorandum of Law in Support of Motion for Summary Judgement, ECF 100, p. 10.
[34] APPX.000592.
[35] ADD.000435.
[36] APPX.000589-000593.

Rather than examine Stober, the BiOp relied upon "operational noise data from the Block Island Wind Farm (BIWF), which has just 5 WTGs, each with a power capacity of only 6 MW"[37] – the epitome of an inaccurate proxy.

Key findings from the Stober study include the following:

- "For impact pile driving, sound levels increase with pile diameter and thus with overall size and nominal power output. A similar relationship exists between operational noise and wind turbine size." APPX.000589.
- "Furthermore, it is important to consider that most of the energy of operational noise is in the lower frequency range (i.e., well below 1kHz). Many of the offshore wind farms planned beyond Europe overlap with essential habitats of baleen whales and fishes that are suspected to be sensitive at those frequencies." APPX.000589.
- "[I]mpact assessment for turbines larger than 6MW has not been performed. Thus, the potential impact of planned offshore wind farms on marine life is unknown." APPX.000589.
- "With the potentially larger impact ranges for larger wind turbines, impact zones will be more likely to overlap and form one impact area that might cover the whole wind farm." APPX.000592.

[37] ADD.000435, ADD.000467.

These findings are particularly pertinent in view of the fact that the Project exhibits a power capacity of 14 MW. And moreover, Stober underscores that larger turbines would yield larger impact ranges,[38] yet there's no evidence that the BiOp or FEIS carefully considered these risks. In fact, the BiOp, only makes a transient reference to the Stober study and does not actually use it to assess the Project's risk to NARWs. ADD.000435.

Therefore, BOEM and NMFS violated NEPA and the ESA respectively by arbitrarily and capriciously failing to adequately consider the operational noise in connection with the Project.

E. NMFS and BOEM failed to adequately consider baseline conditions and recovery of NARW in violation of ESA and NEPA

Agencies must conduct a baseline analysis under the ESA and NEPA, and here, NMFS and BOEM arbitrarily and capriciously derogated from that stipulation. The District Court contends that there is no statutory or regulatory requirement to conduct a baseline analysis, but that is counterfactual.[39] For example, *Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917 (9th Cir. 2008) held that – in the context of a BiOp pursuant to the ESA – the "jeopardy analysis also **failed to incorporate degraded baseline conditions** and failed to adequately consider the

[38] APPX.000592-000593.
[39] Order, Summary Judgement, p. 51.

proposed action's impacts on the listed species' chances of recovery [emphasis added].” And moreover, without knowing the starting point, how can an action’s impact be properly assessed? “The district court correctly held that NMFS inappropriately evaluated recovery impacts without knowing the in-river survival levels necessary to support recovery.” *Id.* at 936. And furthermore, baseline analysis is required under NEPA too:

> “Establishing appropriate baseline conditions is critical to any National Environmental Policy Act of 1969 (NEPA) analysis. **Without establishing the baseline conditions which exist before a project begins, there is simply no way to determine what effect the project will have on the environment** and, consequently, no way to comply with NEPA [emphasis added].” *Great Basin Res. Watch v. BLM*, 844 F.3d 1095, 1101 (9th Cir. 2016).

As to the evidence that NMFS and BOEM abrogated those duties, ACK RATs demonstrated that the agencies failed to consider: the high prevalence (93%) of the NARW population now in the RI/MA wind energy area (see, *supra*, discussion of QR study), the recent increased deaths of NARW (16 of 323 unique NARW dead between 2011 and 2019),[40] the fact that the Project area is a hotspot of NARW (See *supra*), the NARW deaths outnumber births 3:2 (see *supra*), and the NARW’s potential biological removal level is now less than 1, which means the species cannot

[40] APPX.000455.

"absorb even one human-caused death per year and maintain its already disturbing low population?"[41]

Additionally, as ACK RATs explained in its Summary Judgement motion, the environmental review documents also failed to adequately consider existing vessel speeds, stratified by vessel size, in the waters surrounding the Project area. The relevance is that Vineyard Wind intends to compel NARWs out of the Project area during construction via pile driving, and keep them out of the area until turbine installation. As such, the NARW will be compelled to remain in the waters surrounding the Project area for protracted periods (as they will not be able to return to the waters of the Project area given the intense noise). These waters surrounding the Project area are replete with commercial fishing activity and vessel traffic (as discussed supra). Those vessels outside the Project area are not subject to agency regulations and thus are not restricted by the 10-knot speed limit. Moreover, although of little value, there will be no PSOs or PAM as mitigation tools in these surrounding waters.

In order to veraciously assess the impact of the Project on NARW, the agencies were required to acknowledge and understand the baseline predicament of the NARW, which they did not. Moreover, the BiOp entirely omits proper recovery

[41]Plaintiffs' Reply in Support of Motion for Summary Judgement (ECF 105), p. 60.

analysis, and merely "assumes the project's mitigation measures will be enough to prevent project-related impacts from impairing recovery."[42] The implementing regulations of the ESA are ostensible; the definition of "jeopardizing the continued existence" includes the impact an action has on a species survival and recovery:

> "**Jeopardize the continued existence** of means to engage in an action that reasonably would be expected, directly or **indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species** in the wild by reducing the reproduction, numbers, or distribution of that species [emphasis added]." 50 CFR 402.02(d).

The court in *Nat'l Wildlife Fed'n* v. Nat'l Marine Fisheries Serv., 524 F.3d 917 (9th Cir. 2008) concluded that:

> "the district court properly held that NMFS violated the ESA by failing to ensure that proposed FCRPS operations would not destroy or adversely modify critical habitat for any listed fish. Specifically, **the district court found inadequate NMFS's analysis of impacts on the recovery value of critical habitat** for Snake River Spring/Summer Chinook salmon, Snake River Fall Chinook salmon, and Snake River sockeye salmon, the only three listed species with designated critical habitat at the time the 2004 BiOp was issued [emphasis added]."

Moreover, a project's impacts may be sufficient to undermine the recovery of a species already in steep decline, especially where the project's effects contribute to known impediments of recovery. *Wild Fish Conservancy v. Salazar*, 628 F.3d 513 (9th Cir. 2010) ("Even before a population is extinguished, it may reach a point at

[42]Plaintiffs' Reply in Support of Motion for Summary Judgement, ECF 105, p. 7.

which it is no longer recoverable"); see also *Nat'l Wildlife Federation*, 524 F.3d at 931 (9th Cir. 2008) ("a species can cling to survival even when recovery is far out of reach").

How does the Project do this? The Project will eventuate in heightened risks of vessel strikes and entanglements, as discussed *supra*, by way of the ensonification of large region within which 90%+ of all remaining NARWs rely on. This ensonification zone, from pile driving noise, and later, from operational turbine noise, will drive NARWs away from the Project area, and as discussed, into the surrounding region which is heavily fished and poses significant entanglement risks. The putative mitigation protocols are highly ineffective, and will be incapable of detecting the vast majority of NARWs.

And congruently, the FEIS is also legally flawed "because it relies almost entirely on the flawed analysis set forth in the BiOp."[43] Accordingly, the NMFS and BOEM arbitrarily and capriciously failed to adequately analyze the NARW's baseline condition and attendant recovery, in the context of the Project's impacts.

[43] Plaintiffs Reply in Support of Motion for Summary Judgement, ECF 105, p. 58.

CONCLUSION

For the aforesaid reasons, the District Court's denial of Plaintiffs' Motion for Summary Judgement should be reversed, and Plaintiffs respectfully request the Court set aside the BiOp, FEIS, and Record of Decision for the Vineyard Wind project.

Date: September 23, 2023

Respectfully submitted,

/s/ Thomas Stavola Jr. Esq.

Thomas Stavola Jr. Esq.

CERTIFICATE OF COMPLIANCE

This document complies with the type-volume limitation of Federal Rule of Appellate Procedure 32(a)(7)(B) because, excluding the parts of the document exempted by Rule 32(f), it contains 7,938 words.

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Dated: September 23, 2023

/s/ Thomas Stavola Jr. Esq.
Thomas Stavola Jr. Esq.

CERTIFICATE OF SERVICE

I hereby certify that I electronically filed the foregoing with the Clerk of the Court for the United States Court of Appeals for the First Circuit by using the appellate CM/ECF system on September 23, 2023. I certify that all participants in the case are registered CM/ECF users, and that service will be accomplished by the appellate CM/ECF system.

/s/ Thomas Stavola Jr. Esq.
Thomas Stavola Jr. Esq.

No. 23-1501

UNITED STATES COURT OF APPEALS
FOR THE FIRST CIRCUIT

NANTUCKET RESIDENTS AGAINST TURBINES; VALLORIE OLIVER,

Plaintiffs - Appellants,

v.

U.S. BUREAU OF OCEAN ENERGY MANAGEMENT; NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION; NATIONAL MARINE FISHERIES SERVICE; DEBRA HAALAND, Secretary of the Interior; GINA M. RAIMONDO, Secretary of Commerce; VINEYARD WIND 1, LLC,

Defendants - Appellees.

On Appeal from the United States District Court for the District of Massachusetts, No. 1:21-cv-11390-IT – Hon. Indira Talwani

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ADDENDUM TO APPELLANTS' OPENING BRIEF

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