Rear Admiral Kevin M. Smith  
Commander  
Fifth Coast Guard District  
431 Crawford Street  
Portsmouth, VA 23704  

Re: Docket USCG–2020–0172, Port Access Route Study: Seacoast of New Jersey Including Offshore Approaches to Delaware Bay, Delaware

Rear Admiral Smith:

In response to the Federal Register notice¹ published on May 5, 2020, the American Wind Energy Association² (AWEA) and the New York Offshore Wind Alliance³ (NYOWA) appreciate this opportunity to provide comments on the proposed Port Access Route Study (PARS) for the “Seacoast of New Jersey, including Offshore Approaches to the Delaware Bay, Delaware.” (NJPARS)

Navigation safety is a priority of the U.S. offshore wind industry. AWEA, NYOWA and our members strongly believe that offshore wind in the U.S. can be constructed and operated in ways that are compatible with mariner safety and safe vessel navigation. The ability to balance these interests, without sacrificing either, has been widely demonstrated globally and in the U.S. PARS are one of the tools available to ensure the balance of these important interests in the U.S and provides certainty to all stakeholders that safety is paramount to both mariners and the offshore wind industry.

Before addressing the specifics of the proposed NJPARS, AWEA and NYOWA want to raise concerns about the multiple and seemingly overlapping proceedings the U.S. Coast Guard has underway. AWEA raised a similar concern in our June 4, 2020, request for a public hearing on the NJPARS and requested clarification from the USCG to inform these comments. Specifically, it is unclear how the NJPARS relates to the June 2020 advance

² AWEA is the national trade association representing a broad range of entities with a common interest in encouraging the expansion and facilitation of wind energy resources in the United States, including offshore wind. AWEA’s more than 1,000 member companies include wind turbine manufacturers, component suppliers, project developers, project owners and operators, financiers, researchers, utilities, marketers, customers, and others. For more information, see: www.awea.org.
³ The New York Offshore Wind Alliance (NYOWA) is a diverse coalition of business, environmental, labor and community organizations with a shared interest in promoting the responsible development of offshore wind power for New York. NYOWA is a project of the Alliance for Clean Energy New York (ACE NY). For more information, see: www.nyowa.org
notice of proposed rulemaking for Atlantic Coast fairways,⁴ to the November 2019 notice of inquiry on anchorage grounds in the Delaware Bay and Atlantic Ocean,⁵ and to the November 2019 notice of study for a PARS for approaches to the Chesapeake Bay, Virginia.⁶ It can be difficult to think about these issues holistically and provide fully informed comments given the disparate proceedings without clearer direction from the USCG on how they relate to each other.

With respect to these comments specifically, AWEA and NYOWA provide evidence that given what we know about vessel traffic in the study area, the potential impacts from the offshore wind lease areas and call area within the NJPARS study area are very limited. In addition, AWEA and NYOWA provide evidence regarding the experience in Europe in ensuring safe vessel navigation even with the significant offshore wind deployment there in support of our recommended project-specific review and mitigation approach.

AWEA and NYOWA believe there is no basis for adopting new uniform vessel routing measures⁷ in the study area, nor to devalue the existing lease areas by imposing overly restrictive conditions within. Instead, the U.S. Coast Guard (USCG) should work with BOEM and project developers through the National Environmental Policy Act (NEPA) process and the construction and operations plan (COP) review of individual projects, which includes a navigation safety risk assessment (NSRA), during which USCG can propose project-specific measures to mitigate any potential impacts. A balanced, flexible, facility-specific approach to addressing potential impacts will ensure safe navigation while preserving the ability to grow the offshore wind industry in the U.S. and secure the many benefits that will result.

In addition, given the limited vessel frequency and density through the Southern New York Bight as shown in the vessel analysis included later in our comments, AWEA and NYOWA urge the Coast Guard to communicate support to BOEM for moving forward with finalizing lease areas within this call area.

**Balancing multiple uses of the ocean is supported by congressional and Trump Administration direction**

The Coast Guard can balance multiple uses of the ocean while still protecting navigation safety. Vessel routing measures that could render proposed offshore wind energy lease areas, or significant portions thereof, as uneconomic by unnecessarily restricting the use of

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⁷ AWEA and NYOWA refer here to the USCG definition of “vessel routing system” in the final Atlantic Coast Port Access Route Study, July 2015, which is defined as “any system of one or more routes or routing measures aimed at reducing the risk of casualties; it includes traffic separation schemes, two-way routes, recommended tracks, areas to be avoided, no anchoring areas, inshore traffic zones, roundabouts, precautionary areas, and deep-water routes.” Available at: https://www.navcen.uscg.gov/pdf/PARS/ACPARS_Final_Report_08Jul2015_Appendix_I.pdf
a portion of leased areas does not represent an adequate reconciling of the needs of a reasonable use of the area with safe navigation.

The USCG has already determined that the construction and operation of renewable energy facilities in the Atlantic Ocean falls into the category of a reasonable use of waterways.\(^8\) Therefore, when analyzing the need for safe access for navigation, the NJPARS needs to also consider the potential negative impacts any new vessel routing measures could have on offshore wind development, in conjunction with navigation safety, and attempt to reconcile these—not just pick one to the exclusion of the other in the area.

Doing so is also consistent with congressional direction to balance ocean uses. Congress determined in the Energy Policy Act of 2005\(^9\) (EPAct05) that leases for offshore wind, as well as other uses, should be granted. In Section 388 of EPAct05, Congress authorized the Secretary of Interior to grant leases, easements or rights-of-way for the purpose of supporting “production, transportation, or transmission of energy from sources other than oil and gas.”\(^10\)

Finally, the Trump Administration has taken important steps to advance offshore wind consistent with the President's push for U.S. energy dominance\(^11\). For example, the Administration auctioned leases off the coasts of Massachusetts and Rhode Island\(^12\), published a call for information and nominations off the coast of California\(^13\), provided a roadmap for additional wind energy area designations and auctions\(^14\), and most recently, published a supplemental draft environmental impact statement for Vineyard Wind and is planning to make a final decision on the project by the end of this year.\(^15\) BOEM is currently managing 16 active leases across the outer-continental shelf (OCS) in the Atlantic.\(^16\)

AWEA and NYOWA strongly believe that robust deployment of offshore wind is entirely compatible with safe vessel navigation and urges the Coast Guard to find a reasonable balance as directed by statute and consistent with congressional and Administration efforts.

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\(^8\) Atlantic Coast Port Access Route Study (“ACPARS”). Final Report. U.S. Coast Guard ACPARS Working Group. July 8, 2015. Page 2. “A primary purpose of this coordination is, to the extent practicable, to reconcile the need for safe access routes with other reasonable waterway uses such as construction and operation of renewable energy facilities and other uses of the Atlantic Ocean in the study area.” Similar language was also used in the Federal Register notice announcing the NJPARS.


\(^10\) Id.


\(^14\) Available at: [https://www.boem.gov/newsroom/notes-stakeholders/message-boems-acting-director-path-forward-offshore-wind-leasing-outer#:~:text=BOEM%20is%20uniquely%20positioned%20to,OCS%20(83%20FR%2014881)](https://www.boem.gov/newsroom/notes-stakeholders/message-boems-acting-director-path-forward-offshore-wind-leasing-outer#:~:text=BOEM%20is%20uniquely%20positioned%20to,OCS%20(83%20FR%2014881))

\(^15\) Available at: [https://www.boem.gov/vineyard-wind](https://www.boem.gov/vineyard-wind)

\(^16\) For additional information see: [https://www.boem.gov/Lease-and-Grant-Information/](https://www.boem.gov/Lease-and-Grant-Information/)
Vessel navigation was considered in establishing the New York Bight WEA and lease areas in the NJ PARS study area

AWEA and NYOWA do not believe significant new routing measures should be necessary given vessel navigation was considered when establishing the original WEAs, including the scaling back of those WEAs to smaller lease areas, as well as the variety of mitigation measures that can reduce the limited impacts of offshore wind deployment in this study area (mitigation measures are discussed in a later section of these comments).

Pursuant to the 2011 memorandum of understanding\textsuperscript{17} between the USCG and BOEM, USCG's expertise on maritime safety, security, mobility, national defense, and protection of the marine environment is utilized by BOEM in establishing WEAs and lease areas therein.\textsuperscript{18} The USCG is encouraged to participate at the earliest possible time, including during the NEPA scoping process, and “during the development of any Request for Interest (RFI), Call for Information and Nominations (Call), other planning notices,” which are prepared by BOEM, or through BOEM’s review of any unsolicited lease or grant requests. The MOU also specifically considers how navigation safety issues are to be deliberated.\textsuperscript{19}

The USCG's expertise has already been influential in BOEM's consideration of WEAs and leases related to offshore wind in the study area. In its Final Environmental Assessment for Commercial Wind Lease Issuance and Site Assessment Activities on the Atlantic Outer Continental Shelf Offshore New Jersey, Delaware, Maryland and Virginia,\textsuperscript{20} BOEM acknowledges how their plans changed as a result of USCG input, including eliminating certainty USCG category areas from leasing and changing the agency's proposed action and preferred alternative.

The Final EA notes the New Jersey's Wind Energy Areas were specifically designed to avoid shipping lanes and traffic separation schemes. The EA indicates, "Based on recommendations by the USCG, and considering the lack of information currently available

\textsuperscript{17} Available at: \url{https://www.boem.gov/MOA-USCG-BOEMRE/}
\textsuperscript{18} Provision 2(a): “BOEMRE will utilize the USCG’s expertise during the NEPA process and invite the USCG to be a cooperating agency during the preparation of NEPA documentation. The USCG will participate in the NEPA process as a subject matter expert for maritime safety, maritime security, maritime mobility (management of maritime traffic, commerce, and navigation), national defense, and protection of the marine environment. During BOEMRE’s preparation of NEPA documentation, the USCG should participate at the earliest possible time, particularly during the scoping process (see 40 CFR 1501.7).”
\textsuperscript{19} Section 2(c): “The USCG and BOEMRE recognize the important role that risk management strategies play in ensuring the safe, secure, and environmentally responsible construction and operation of a renewable energy facility. Vessel, facility, and waterway navigational safety and security assessments are a key component of the risk management process. Accordingly, the USCG and BOEMRE have agreed to collaborate in assessing the navigational risks that may be posed by renewable energy development. This includes collaboration on the use of navigational safety risk assessments for evaluating renewable energy development activities on the OCS. Such assessments may provide useful information for assessing navigation and maritime concerns associated with renewable energy development on the OCS.”
\textsuperscript{20} Available at: \url{https://www.boem.gov/sites/default/files/uploadedFiles/BOEM/Renewable_Energy_Program/Smart_from_the_Start/Mid-Atlantic_Final_EA_012012.pdf}
to assess vessel traffic types, densities and routing direction of vessels leaving the TSS, BOEM determined that OCS blocks within and directly south of the TSS were not included in the WEA. OCS blocks within one nm of an identified traditional tug and barge transit route were also removed from consideration."21

It is also worth quoting from the Final EA at length with respect to how the USCG feedback was incorporated into designation of the final Maryland lease areas:

“Since the announcement of the WEA, BOEM requested that the USCG identify those blocks that, should wind energy installations be placed on them, would present navigational safety issues. The USCG identified those OCS blocks or portions of the OCS blocks that it believes should not be developed because of existing and possible future increase in vessel traffic density. The USCG also identified OCS blocks or portions of OCS blocks that it believes require further study, including analysis of existing traffic usage and patterns, as well as projected future traffic increases. Additionally, the USCG identified blocks or portions of OCS blocks where the installation of wind energy structures appear to pose minimal or no detrimental impact on navigational safety. The USCG is studying these areas further to determine if their development would have any impact to navigational safety (USCG, communication, 2011). See Category C on Figure 1.3. In response to the input of the USCG, BOEM refined the Maryland WEA since the publication of the NOI to include only the latter two categories of OCS blocks.”22

BOEM’s accommodation of previously expressed USCG concerns are demonstrated in the graphic below prepared by AWEA using data from the Mid-Atlantic Ocean Data Portal23, the lease areas BOEM selected that are within the NJPARS study area are outside of major vessel traffic routes and traffic separation schemes and the vessel frequency and density traveling into or through the lease and call areas are limited (AWEA’s full vessel data analysis appears later in these comments):

Figure 1. All Vessels Traffic

21 Ibid. Page 6.
22 Ibid. Page 8.
23 Available at: http://portal.midatlanticocean.org/
Ports and Waterways Safety Act protects rights granted under leases and permits

It is important to keep in mind that the Ports and Waterways Safety Act (PWSA) states that the Secretary may “not deprive any person of the effective exercise of a right granted by a lease or permit.” Consistent with this statutory requirement and the fact that USCG input is already considered by BOEM in establishing the WEAs and lease areas considered in this study area, the USCG should very carefully consider whether any vessel routing measures that would cut through existing lease areas are truly necessary to ensure navigational safety. In particular, the USCG should consider whether corridors that differ from illustrative corridors that were in final sale notices, and thus available prior to developers bidding, are consistent with its statutory obligations.

Benefits of U.S. offshore wind and state procurement goals need to be considered when addressing vessel navigation needs

The U.S. offshore wind industry is on the verge of significant growth. A balanced, flexible, project-specific approach to mitigating potential impacts can also better balance the need to ensure safe navigation with state demand for offshore wind and the economic and environmental benefits that will result.

There are 26,000 megawatts of offshore wind potential in the lease areas BOEM has auctioned in the Northeast and Mid-Atlantic. This includes 13 offshore wind projects that have secured commitments for buying electricity from those facilities totaling more than

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9,000 megawatts of capacity by 2026. In just 2019 alone, states cumulatively increased their targets for offshore wind by more than 16,000 megawatts. State targets total more than 29,000 megawatts by 2035.  

The USCG should not put at-risk the ability of states in this area, as well as others, to achieve their public policy goals by putting in place broad, unnecessarily restrictive vessel routing measures.

Building on the initial 30 MW deployment of offshore wind in the U.S. will provide a variety of economic, employment, infrastructure, manufacturing, and environmental benefits. Harnessing America’s offshore wind resources will create tens of thousands of highly skilled, well-paying U.S. jobs, revitalize ports and coastal communities, improve national security, and deliver vast amounts of reliable energy to America’s biggest population centers. A March 2020 study published by AWEA finds that deploying up to 14,000 MW of offshore wind over the next five years will result in up to 45,000 jobs and up to $14.2 billion of annual economic output with nearly double that by 2030. A study by the Workforce Development Institute found that 74 different occupations, including electricians, ironworkers, and welders are needed during the various stages of planning, development and operations of offshore wind farms. The offshore wind industry will also support many jobs for U.S. mariners, including on environmental, geotechnical and geophysical survey vessels, supply vessels, crew transfer vessels, tugboats, and cable laying vessels, among others.

**Offshore wind energy around the world has been compatible with navigation safety**

Fortunately, our nation does not need to trade-off the deployment of offshore wind and its associated benefits with navigation safety. We can have both. The global experience proves it.

According to the Global Wind Energy Council (GWEC), 6,145 MWs of offshore wind was installed in 2019, bringing the cumulative installations to 29,136 MWs (Figure 2). Following

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26 The nation’s first commercial offshore wind project the Block Island Wind Farm, came online in December 2016. Developed by Deepwater Wind, now Ørsted US Offshore Wind, the Block Island Wind Farm is a 30 MW project with five turbines located three miles off the coast of Block Island, Rhode Island.


28 By 2030, the benefits will jump to up to 83,000 jobs and $25 billion in annual economic output.

is a chart from GWEC that details installations in 2018 and 2019 along with a cumulative total for each country that has deployed offshore wind.\textsuperscript{30}

\textbf{Figure 2: Global offshore wind installed capacity}

<table>
<thead>
<tr>
<th>MW, offshore</th>
<th>New installations 2018</th>
<th>Total installations 2018</th>
<th>New installations 2019</th>
<th>Total installations 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total offshore</td>
<td>4,348</td>
<td>22,997</td>
<td>6,145</td>
<td>29,136</td>
</tr>
<tr>
<td>Europe</td>
<td>2,658</td>
<td>18,280</td>
<td>3,627</td>
<td>21,903</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>1,312</td>
<td>7,963</td>
<td>1,764</td>
<td>9,723</td>
</tr>
<tr>
<td>Germany</td>
<td>969</td>
<td>6,382</td>
<td>1,111</td>
<td>7,493</td>
</tr>
<tr>
<td>Belgium</td>
<td>309</td>
<td>1,186</td>
<td>370</td>
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<td>Denmark</td>
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<td>374</td>
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<tr>
<td>Other Europe</td>
<td>7</td>
<td>302</td>
<td>8</td>
<td>310</td>
</tr>
<tr>
<td>Asia-Pacific</td>
<td>1,690</td>
<td>4,687</td>
<td>2,518</td>
<td>7,204</td>
</tr>
<tr>
<td>China</td>
<td>1,655</td>
<td>4,443</td>
<td>2,395</td>
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<tr>
<td>South Korea</td>
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</tr>
<tr>
<td>USA</td>
<td>0</td>
<td>30</td>
<td>0</td>
<td>30</td>
</tr>
</tbody>
</table>

These existing installations have been done in ways that are compatible with safe navigation. In fact, the USCG looked into the one incident that commenters on the draft Massachusetts and Rhode Island Port Access Route Study (MARIPARS) recommended the Coast Guard consider of a reported allision between a vessel navigating through a European wind farm and a wind turbine and found the captain was to blame. It is worth quoting the USCG’s findings in the final MARIPARS report\textsuperscript{31} regarding this incident in full (footnotes were in the original, but with different numbering consistent with footnote sequencing in that report):

"Comments requested the USCG review a report on an allision between a vessel navigating within a European wind farm and an unlit wind turbine.

(a) In March 2019, marineinsight.com\textsuperscript{32} reported a 2012 incident wherein a vessel's captain 'as was the practice once inside the wind farm, had put the radar into standby mode' because 'trials have demonstrated that, at close range, a wind farm may produce multiple reflected and side lobe echoes that can mask real targets. Employing radar within a wind farm is not reliable; therefore, the decision by the captain not to employ the radar while transiting the wind farm was understandable.'

(b) A closer investigation by the United Kingdom’s Maritime and Coast Guard Agency (MCA) Marine Accident Investigation Board (MAIB) found the vessel's master at fault due to


\textsuperscript{31} Final Report the Areas Offshore of Massachusetts and Rhode Island Port Access Route Study, USCG, May 2020. Available at: \url{https://www.regulations.gov/contentStreamer?documentId=USCG-2019-0131-0101&contentTypeId=pdf}

\textsuperscript{32} \url{https://www.marineinsight.com/case-studies/wind-farm-vessel-collides-with-turbine-tower/}
several contributing factors: operating in 30-knot winds, in heavy seas, driving rain, at night, with excessive speed, and all without a proper lookout.

(c) Ultimately, the Board found the master relied too heavily on his own visual monitoring as the sole method of detection, made insufficient use of a proper lookout and available navigation equipment, and failed to adequately monitor the vessel’s passage in light of the prevailing circumstances.\textsuperscript{33}

In other words, there was not an inherent challenge with the wind farm, spacing within the wind farm or other mitigation measures that may have been deployed, it was captain error that led to the incident. AWEA is not aware of any similar incidents at operating offshore wind farms.

As will be described in more detail in the next section, vessel routing and other safety measures have been developed around the world on a project-by-project basis and that process has been demonstrated to be adequate to protect navigation interests along with underlying regulations regarding safe vessel operation.

Experience in Europe provides lessons learned that should inform the USCG approach

In Europe, navigation regulations and guidance applied to offshore wind farms adopt internationally recognized laws such as the Safety of Life at Sea\textsuperscript{34} (SOLAS), International Maritime Organization (IMO) Convention and the IMO Convention on the International Regulations for Preventing Collisions at Sea (COLREG).\textsuperscript{35} This approach has kept maritime users safe, while allowing flexibility in the development of offshore wind farms based on a project-level Navigational Safety Risk Assessment (NSRA).

Guidance is provided on appropriate safety distances between projects and distances from designated shipping lanes or routes that reflect dominant transit patterns. The designation of specific transit lanes through a wind farm is not a requirement of any of these laws and regulations. European practice has adopted effective mitigation methods to minimize the potential impacts on navigation safety, including when transiting through wind farms. There same approach can work here.

Adherence to COLREGs acts, in a way, as a mitigation measure. Adherence to COLREGs (specifically, Rule 8) means vessel operators have an obligation to use all available means given prevailing conditions to determine if a collision risk exists and, if there is any doubt, take precautionary measures to avoid that risk, including maintaining a safe speed. A safe speed is determined considering visibility, traffic density, the state of the sea/currents, proximity of navigational hazards, and maneuverability and stopping distance for the vessel.

\textsuperscript{33} \url{https://assets.publishing.service.gov.uk/media/547c6f44e5274a429000001b/W9IPReport_Web.pdf}
\textsuperscript{34} Summary available at: \url{http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/International-Convention-for-the-Safety-of-Life-at-Sea-(SOLAS)-1974.aspx}
\textsuperscript{35} Summary available at: \url{http://www.imo.org/en/About/Conventions/ListOfConventions/Pages/COLREG.aspx}
In addition, as the USCG noted in the final MARIPARS report, “COLREGS Rule 5 requires that ‘every vessel shall at all times maintain a proper lookout by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and risk of collision.’ Combined, these rules suggest that proper use of a radar is required if the vessel is fitted with one.”

Consistent with COLREGS, the USCG also put part of the responsibility on mariners to ensure safe navigation via the following recommendation from the final MARIPARS report:

“Mariners transiting in or near the MA/RI WEA should use extra caution, ensure proper watch and assess all risk factors. Offshore renewable energy installations present new challenges to safe navigation, but proper voyage planning and access to relevant safety information should ensure that safety is not compromised.

In general, mariners transiting through this WEA should make a careful assessment of all factors associated with their voyage. These factors at a minimum should include;

1) The operator’s experience and condition with regard to fitness and rest.
2) The vessels characteristics, which should include the size, maneuverability, and sea keeping ability. The overall reliability and operational material condition of propulsion, steering, and navigational equipment.
3) Weather conditions – both current and predicted including sea state and visibility.
4) Voyage planning to include up-to-date information regarding the positions of completed wind towers or wind towers under construction and their associated construction vessels. A great deal of consideration should also be given to whether the transit will be conducted during day or night.”

While countries differ in the specifics of their approaches, only one country, Germany, requires a designated traffic separation scheme (TSS) before project-specific layouts are available. This is because Germany has extremely high commercial vessel volumes, which far exceeds those in the U.S. but are managed using International Maritime Organization (IMO) recognized TSSs.

In Europe, a site-specific NSRA is typically undertaken to fully evaluate the potential navigational risks posed by a specific offshore wind farm. Based on the findings of the NSRA, risks, if any, to navigation from a specific proposed wind farm can be evaluated and addressed, and potential mitigation measures implemented. In the U.S., an NSRA is also required during the project-specific construction and operations plan (COP) development and review process managed by BOEM and in which the USCG is a cooperating agency. 36

Further, in Europe, the mitigation measures are generally based on baseline data collection to obtain information on the vessel activities in the vicinity of the proposed project, comprising seasonal AIS data, radar data, visual surveys, desk-based information and

consultation with local stakeholders/experts. This allows the mitigation measures to be tailored to the specific projects and types of vessels in the area.

*Narrower distances between wind turbines and shipping lanes/transit routes than what the USCG recommends has been demonstrated to be safe for vessel navigation*

As shown in the graphic below prepared by the Renewables Consulting Group (RCG) for AWEA (Figure 3), the most common distance between a wind farm and shipping lane or transit route in Europe is approximately 1 nautical mile (nm).37 These measures were put in place via project-specific discussions and notably are less than the 2 nm setbacks recommended by the USCG with respect to traffic lanes (assuming 300-400 foot vessels).38

**Figure 3: Distance from shipping lane/transit route to wind farm (nautical miles)**

Source: RCG

*Spacing of 0.5 to 0.75 nm between turbines within a wind farm in Europe has been demonstrated to support safe vessel navigation*

With respect to navigation within wind farms in Europe, wind turbine spacing varies between projects; but it has generally been on the order of 0.5 nm to 0.75 nm (1.0 to 1.5 kilometers).39

The experience in Europe demonstrates that vessel navigation around and through a wind farm can be done safely via project-specific reviews and mitigation, and with measures

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37 The outlier here, the East Anglian Wind Farm has a large distance because the wind farm was located close to the Off Botney Ground Traffic Separation Scheme (TSS).


typically less onerous than those proposed by the Coast Guard, rather than designating vessel routing measures unilaterally.

**Planning guidelines are adequate to inform designation of Wind Energy Areas (WEAs) and areas offered for leasing. Binding regulatory measures are more appropriately imposed during NEPA review of individual projects.**

The planning guidelines presented in the final ACPARS report are adequate for informing WEAs and areas offered for leasing by BOEM, including informing developer bids into BOEM auctions. As the USCG acknowledged in the final ACPARS report, “These guidelines are not regulatory. They do not impact the boundaries of any existing leases for site characterization and site assessment activities, but do inform suitability of siting structures within a lease area.” The report continued, “The goal of these guidelines is to minimize interference with shipping routes such that the safety of navigation is not compromised, while providing the flexibility to evaluate site specific conditions to maximize area considered for development.”

And as the USCG reiterated in the *Federal Register* notice announcing the finalization of the ACPARS report, “Our MP [marine planning] Guidelines are not standards, regulations or requirements of any type, but rather are guidance for developers to consider at the outset of a proposal.” The notice continued, “The Coast Guard will evaluate each proposed project based upon the actual risks identified in the Navigation Safety Risk Assessment, and not by rigidly applying recommended distances from the MP Guidelines or any other similar guidance.” With respect to the NJPARS, AWEA and NYOWA see no reason to change course away from the project-specific approach utilizing NSRAs to identify potential issues and available mitigations as suggested in the final ACPARS report.

In the U.S., as in Europe, an NSRA is required in which developers identify and evaluate potential mitigation measures. These site-specific risk assessments allow developers to work with local stakeholders to ensure mitigation measures are appropriate. This process includes consideration of navigational risks to all types of vessels in the area. It allows routing measures and mitigation to be tailored to the needs of the USCG, vessel operators in the areas and developers.

Among the types measures that can facilitate safe navigation and should be considered during project specific NSRAs and individual developer and stakeholder discussions with USCG are:

- Turbine spacing
- Turbine layout (pattern, orientation)
- Buffers from navigation lanes

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40 ACPARS. Page 1 and Page 3 of “Marine Planning Guidelines” enclosure.
41 *Federal Register*. Vol. 82, No. 64. April 5, 2017. Pages 16510-16512.
Communications plans – frequent notices to mariners, utilization of fisheries liaisons and local fisheries representatives based in regional ports to facilitate communication etc.

- Transit speeds
- Deployment of AIS technologies
- Marine navigation lighting and marking
- Establishment of safety zones during construction
- Adherence to COLREGs and general safe navigation operational practices
- Cable burial depth and shielding
- Proper marking of turbines and cable routes on NOAA nautical charts
- Remote monitoring and control of project operations

**Why a project-specific approach to addressing navigation concerns is important**

Offshore wind farm development is extremely complex. As lease areas are studied by lease holders during implementation of their site assessment plan, they are collecting data and analyzing various factors – wind speeds, other atmospheric and ocean data, wildlife (avian, marine mammals etc.) issues, vessel navigation (via NSRAs), Department of Defense activities, seabed characterization, commercial fisheries, etc. – that inform and may change multiple times how they are thinking about the lease area and the proposed project.

During the project design phase, lease holders periodically refine the turbine layout, total number of turbines etc. based on information acquired through studying the area and engaging with regulators and stakeholders. Given the rapidly advancing wind turbine technology and the years it takes to develop offshore wind farms, even the planned turbine size and model around which an offshore wind farm is being developed may change as the project moves forward. This has implications for wind turbine layout. Optimizing wind turbine layout and spacing is critical to maximizing energy production, which is central to keeping the cost of energy affordable and helps to provide a reasonable return to taxpayers.

The changes in turbine technology can also impact vessel navigation considerations. For example, larger rotor diameter turbines require more spacing between turbines to maximize output and for safety considerations. This fact alone may result in adequate spacing between turbines to ensure safe vessel transit, without the need to establish corridors or other measures that unnecessarily remove the flexibility of developers to maximize generation through optimizing wind turbine layout. Issues like this would become clearer through project-specific discussions and mitigation.

This complexity of development is recognized by BOEM in its draft project design envelope (PDE) guidance. In the guidance, BOEM acknowledges that not all final design parameters may be decided when a developer is ready to submit their construction and operations plan (COP) for NEPA review.

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42 Available at: [https://www.boem.gov/Draft-Design-Envelope-Guidance/](https://www.boem.gov/Draft-Design-Envelope-Guidance/)
The PDE approach as practiced in other countries and as implemented by BOEM, allows a developer to propose a reasonable range of potential project design parameters for certain key components of a development, including: type and number of turbines; foundation type; location of the export cable route; location of an onshore substation; location of the grid connection point; and construction methods and timing, for purposes of the environmental review of the project. BOEM will then analyze the projects using the most impactful of the project ranges proposed by the developer.

According to BOEM, the PDE approach provides “appropriate flexibility to accommodate final design decisions in later stages of the process (e.g., micro-siting to optimize generation efficiency and address site constraints).” AWEA and NYOWA agree.

Establishing new vessel routing measures outside of the project specific NEPA review undermines the flexibility needed by developers to address other constraints that may arise during analysis and stakeholder engagements. By contrast, working with developers to design project specific conditions via NSRAs and the subsequent BOEM NEPA process will still ensure safe vessel navigation while not unnecessarily hindering needed flexibility for project proponents during development when the process is still very fluid and stakeholder interests and needs are being considered and balanced.

**Analysis of vessel traffic in the study area supports project-specific approach and leasing in the Southern New York Bight**

AWEA prepared a high-level analysis of vessel traffic in the study area using the 2019 automatic identification systems (AIS) data from the Mid-Atlantic Ocean Data Portal.\textsuperscript{43} AIS vessel records are reported as a series of points during transit or dwell-times when within range of a receiving station. The USCG requires all vessels 65 feet or greater in length or towing vessels of at least 26 feet in length, and all passenger ships to use AIS equipment to exchange information on vessel identity and location with other nearby ships.

For this AWEA analysis, individual vessel positions have been processed into tracks and then summarized at a 100 x 100-meter (10,000 m\textsuperscript{2}) cell resolution to characterize intensity of vessel use. A single transit is counted each time a vessel track passes through, starts, or stops within each grid cell. Frequency distribution tables were then calculated by summarizing the percent distribution of annual vessel counts within an offshore wind lease area or proposed wind energy area, using ArcGIS software.\textsuperscript{44}

AWEA presents consolidated information starting on page 16 of these comments for all vessels as well as disaggregated information for cargo, commercial fishing, tug and tow, passenger, and tanker vessels. In summary, there are a limited number of unique trips and limited vessel density through any of the lease areas or the Southern New York Bight Call Area (“Hudson South”).

\textsuperscript{43} Available at: \url{http://portal.midatlanticocean.org/}

\textsuperscript{44} Data file sizes and computer processing speed limitations prevented AWEA from doing more detailed analysis in the time provided.
The frequency distribution tables that follow each graphic represent the percent
distribution of the number of annual unique vessel trips through a lease or call area. This is
a useful proxy for considering the frequency of vessel use. For example, for lease area A,
when considering all traffic together, 80 percent of the trips are repeated only between 1-10
times per year, 19 percent are repeated 10-20 times. No vessel repeats a trip more than
20 times over the course of a year. When considering individual vessel types rather than
aggregated data, the vast majority of unique trips through a lease or call area are repeated
less than 10 times per year, with the balance less than 20 times per year.

This suggests it should be possible to finalize lease areas in the Southern New York Bight
and to develop mitigation measures and/or routing measures through individual project
navigation safety risk assessments and BOEM permit conditions requested by USCG for
individual projects with minimal impact to vessel navigation.

Further, as shown in the data on the following pages, the types of vessels that may utilize
one of the areas on occasion varies among the lease and call areas, with cargo and fishing
vessels being the most prominent depending on the lease area. This provides further
support for analyzing potential mitigation and routing measures on a project specific-basis
through NSRAs and USCG engagement with project developers, BOEM and others rather
than proposing one-size-fits all routing or other mitigation measures that would
significantly impede the development of existing lease areas.

(Maps and distribution tables follow below starting on page 16)
Figure 4. All Vessels Traffic (re-print of map in Figure 1)

<table>
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<th>Number of trips per year</th>
<th>Lease Area A</th>
<th>Lease Area B</th>
<th>Lease Area C</th>
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Figure 5. Cargo Vessel Traffic

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Figure 6. Fishing Vessel Traffic

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Figure 7. Tug n’ Tow Vessel Traffic

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### Figure 8. Passenger Vessel Traffic

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Figure 9. Tanker Vessel Traffic

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Potential radar related impacts are well-understood as are potential mitigation options

While some commenters in other USCG PARS proceedings have raised concerns about potential impacts from offshore wind facilities on marine radars, studies to date suggest the impacts are not significant, are well-understood and there are measures that can be implemented to reduce potential impacts.
The USCG’s final MARIPARS report accurately summarizes these issues. The final MARIPARS notes that various factors play a role in potential marine radar impacts noting, “The potential for interference with marine radar is site specific and depends on many factors including, but not limited to, turbine size, array layouts, number of turbines, construction material(s), and the vessel types.”

Further, the final MARIPARS summarizes potential impacts including radar clutter, radar saturation, and radar shadowing. The USCG notes however, that, “Vessels have different types of radar with varying capabilities. For example, radars that are off-center, or obstructed by railings, antennas, masts and the like are more likely to detect objects falsely. Additionally, radar operator proficiency plays an essential role in a radar system’s ability to properly detect targets in and around a wind farm.”

Importantly, the report concludes that, “The UK studies also show that additional mitigation measures, such as properly trained radar operators, properly installed and adjusted equipment, marked wind turbines and the use of AIS, enable safe navigation with minimal loss of radar detection.”

The final MARIPARS discussion on radar issues is also consistent with the USCG’s own conclusions regarding the 130 turbine Cape Wind project. Notably, with respect to Cape Wind, the maximum distance between the turbines was 0.54 NM, which is narrower spacing than the projects with larger turbines being constructed today are proposing. Yet, even with this narrower turbine spacing, the USCG found the impacts to marine radar were manageable and vessels could safely navigate within the vicinity of the wind farm. The Coast Guard position in 2009 applies just as well in 2020: “Affected waterways users may need to adjust somewhat to account for navigating within, and in the vicinity of, the proposed wind farm. Nevertheless, vessels operating within or near the proposed wind farm should be able to do so safely even in restricted visibility.”

**Uncharted and informal anchorage areas**

AWEA is concerned by the reference in the notice of study regarding “potential conflicts or disruptions in uncharted or informal anchorage areas.” As AWEA noted in our prior request for a public hearing, we cannot comment on unchartered or informal anchorage areas when we do not know how many exist, where they are, the standard for determining their location, and by whom such locations are determined. Insights on these questions would be appreciated and an explanation of how these can be considered in the study when there is not a formal opportunity for many stakeholders to be aware of and comment on them.

AWEA would be concerned if the USCG planned to take action to formalize such areas should they interfere with the value of existing lease areas when leaseholders had no

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45 Available at: [https://www.boem.gov/sites/default/files/renewable-energy-program/Studies/USCGRADARfindingsandrecommendationsFINAL.pdf](https://www.boem.gov/sites/default/files/renewable-energy-program/Studies/USCGRADARfindingsandrecommendationsFINAL.pdf)
awareness of their existence in BOEM auctions or during subsequent project and COP development since they are by definition uncharted and informal.

**Transmission corridors**

AWEA was surprised to see the inclusion of “planned or potential...transmission corridors” in the notice of study. As AWEA asked in our letter requesting a public hearing, does the Coast Guard routinely review transmission corridor proposals, or proposals for subsea cables in general, for impacts to port access? If so, what is the concern being analyzed? If not, why include them only with respect to offshore wind projects?

In general, AWEA’s view is that proper marking of cable paths on applicable navigation charts, as well as adherence to AWEA’s 2012 Offshore Compliance Recommended Practices (includes recommendations related to installation, protection, burial etc.; the document is currently being updated), BOEM commissioned reports on offshore cable burial (where appropriate) and cable spacing are adequate to address transmission compatibility with vessel navigation and safety. With respect to burial, BOEM recommends a minimum burial depth of 3.28 feet (1 meter) and at least a single layer for armor where there is the potential for damage from fishing vessel activity.

**Summary of AWEA recommendations**

(1) The Coast Guard must find a reasonable balance that facilitates the deployment of offshore wind while maintaining safe navigation as directed by statute and consistent with Administration, congressional, and state direction on offshore wind.

(2) The NJPARS should validate the status quo and conclude that no new general routing measures applicable throughout the study area are necessary, which the USCG acknowledges is one possible outcome of the study.

(3) The project specific NEPA process is the appropriate place for a more focused review of specific projects and the risks they pose to navigation safety given the specific vessels that otherwise navigate near or through the lease area. Therefore, any necessary project design or routing measures should be evaluated during this process using NSRAs, not as broadly applicable measures in the NJPARS.

(4) To the extent the USCG instead moves forward with designating broadly applicable routing measures, before doing so, the USCG needs to consider the potential negative impacts any such measures could have on offshore wind development in order to adequately reconcile both.

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46 See: [https://engage.awea.org/Shop/Product-Details?productid=%7b97B55D84-7CE7-8B11-80F9-000D3A011CEC%7d](https://engage.awea.org/Shop/Product-Details?productid=%7b97B55D84-7CE7-8B11-80F9-000D3A011CEC%7d)


48 See: [https://www.boem.gov/sites/default/files/renewable-energy-program/Studies/TAP/722AA.pdf](https://www.boem.gov/sites/default/files/renewable-energy-program/Studies/TAP/722AA.pdf)
(5) Given limited vessel frequency and density present in the Southern New York Bight, the USCG should signal to BOEM support for moving forward with finalizing lease areas within that call area.

Conclusion

Thank you for your consideration of the issues raised in these comments. Please do not hesitate to contact AWEA if we can provide additional information.

Sincerely,

Tom Vinson
Vice President,
Policy & Reg Affairs
AWEA

Laura Morton
Senior Director,
Offshore Wind
AWEA

Joe Martens
Director
NYOWA