Comments of the

World Shipping Council

Submitted to the

Bureau of Ocean Energy Management

In the matters of

Commercial Leasing for Wind Power on the Outer Continental Shelf Offshore North Carolina – Call for Information and Nominations
(Docket No. BOEM-2012-0088)

and

Commercial Wind Leasing and Site Assessment Activities on the Atlantic Outer Continental Shelf (OCS) Offshore North Carolina – Notice of Intent to Prepare an Environmental Assessment
(Docket No. BOEM-2012-0090)

January 28, 2013
The World Shipping Council (WSC) is a non-profit trade association that represents over twenty-nine liner shipping\(^1\) companies that carry approximately 90% of U.S. international containerized trade. WSC files these comments with the Bureau of Ocean Energy Management (BOEM) in response to two Federal Register notices (77 Fed. Reg. 74204 and 77 Fed. Reg. 74218, both published on December 13, 2012) which respectively invite public comment on the call for information and the completion of an Environmental Assessment (EA) for the construction of wind energy projects on the Outer Continental Shelf (OCS) off the coast of North Carolina.

WSC has filed previous comments to BOEM on the leasing process for wind farms on the OCS. Those comments will not be restated here and may be found in BOEM docket numbers BOEM-2010-0077, BOEM-2010-0063, BOEM-2010-0038, and BOEM-2011-0005 and on the WSC website at [http://www.worldshipping.org/public-statements/regulatory-comments/united-states](http://www.worldshipping.org/public-statements/regulatory-comments/united-states).

While WSC appreciates the desire to develop renewable energy sources, such as wind power, on the Atlantic OCS, wind energy projects should not be sited in or near commercial shipping corridors or risk the safe navigation of vessels carrying America’s waterborne commerce.

We offer the following comments on the North Carolina call for information and EA.

1. **Comments on Call Area “Kitty Hawk”**

   Call Area Kitty Hawk (formerly referred to as “Area 5” in the North Carolina wind farm planning process), extends approximately 40 nautical miles (nm) off the North Carolina coast and runs approximately 45 nm from north to south. This Call Area is comprised of 138 full OCS blocks and 36 partial OCS blocks that cover more than 1,000 square nm of ocean. The northern boundary of Call Area Kitty Hawk sits less than 20 nm south of the southern terminus of the Traffic Separation Scheme (TSS) for the deep water southern approach to the Chesapeake Bay.

   Vessel automated information system (AIS) data demonstrate that Call Area Kitty Hawk lies on top of multiple high density maritime transit corridors, through which thousands of large oceangoing cargo vessels pass each year. The AIS image below shows that deep-draft oceangoing cargo vessels departing the Chesapeake Bay for southern U.S. ports exit the Chesapeake Bay TSS on a southeasterly course and then turn further south passing through the center of Call Area Kitty Hawk. Correspondingly, oceangoing vessels destined from southern U.S. ports to ports in the Chesapeake Bay pass through the center of Call Area Kitty Hawk. It is important to note that the AIS chart below depicts only oceangoing cargo vessels. Thousands of other vessels types that use these waters, including tankers, barges, tug boats, commercial fishing boats and recreational vessels, are not shown on this chart.

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\(^1\) Liner vessels operate on fixed schedules among pre-determined ports. The Council’s member lines operate containerships, roll-on/roll-off, and car carrier vessels. A list of the Council’s members may be found at [www.worldshipping.org](http://www.worldshipping.org).
While we appreciate the opportunity to comment on a proposal such as this call for information, we do not think maritime expertise is needed to see that inviting wind farm proposals in high density maritime traffic areas, as is being proposed in Call Area Kitty Hawk, is dangerous and imprudent. A quick look at the AIS data on the above chart demonstrates that wind turbine installations in Call Area Kitty Hawk would pose an obvious threat to commercial vessels operating in that area.

Positioning fixed wind turbines in close proximity to maritime transportation corridors and in the pathway of oceangoing ships should simply not be allowed to be contemplated. The
environmental damage and costs of a single allision between a ship and a wind turbine, as well as the potential loss of life and property, could easily exceed any benefits of siting such turbines in the area. Safety of navigation dictates that there should be no circumstance where a lease should be invited in or near commercial shipping routes that are established by practice or are formally designated through the TSS process.

BOEM appears in the Notice to recognize that most of these particular blocks off North Carolina will have to be modified to address significant navigational restrictions and presumably cannot be appropriate locations for wind farms, yet BOEM nevertheless has included these areas in the call for information. The Notice acknowledges that the Coast Guard completed a “Red-Yellow-Green” (R-Y-G) assessment that evaluated the risks of placing wind farm lease areas off North Carolina various distances from AIS-documented maritime traffic routes and vessel usage areas. According to BOEM’s website, the Coast Guard presented this R-Y-G assessment to BOEM and the North Carolina State Task Force in October of 2011. The Coast Guard assessment of Call Area Kitty Hawk (depicted below) concluded that virtually all of Call Area Kitty Hawk should be deemed “red” and excluded from consideration because wind farm development in these areas would pose “very high” to “high” risk.

We concur with the Coast Guard’s R-Y-G analysis and urge BOEM to exclude from further consideration any full or partial OCS blocks that the Coast Guard deemed “red” in that analysis. We also see no reason why BOEM failed to incorporate the Coast Guard’s R-Y-G assessment findings into the proposed Call Area before it was published in the Federal Register. For the future, a more deliberate process that fully integrates the expertise, analysis, and advice of the
U.S. Coast Guard before publishing a call for information on a specific Call Area would be advisable.

2. **Comments on Call Areas “Wilmington East” and “Wilmington West”**

Call Areas Wilmington East and West (formerly referred to respectively as “Area 2” and “Area 1” in the North Carolina wind farm planning process) comprise approximately 57 full OCS blocks and 24 partial OCS blocks that cover more than 400 square nm of ocean. The Coast Guard’s R-Y-G analysis mentioned earlier in these comments included Call Areas Wilmington East and West and concluded that approximately half of the blocks in Call Area Wilmington East and less than one block of Call Area Wilmington West should be deemed “red” and excluded from consideration because wind farm development in these areas would pose “very high” to “high” risk.

We concur with the Coast Guard’s R-Y-G analysis and urge BOEM to exclude from further consideration any full or partial OCS blocks that the Coast Guard deemed “red” in that analysis.

3. **Adequate Buffer Zones Are Needed Between Commercial Vessels and Wind Farm Lease Areas**

Appropriate buffer zones from the edge of a maritime traffic route (including traffic separation schemes and undesignated high-density routes) to the edge of the boundary of a wind farm lease area are essential to the safe navigation of vessels. Buffer zones provide an
area of open water to which transiting ships can divert if the ship loses power, loses steering, or suffers some other engineering casualty that forces the vessel to quickly depart the maritime route and conduct an emergency anchoring. The size and limited maneuverability of oceangoing commercial ships provide some indication of how wide buffer zones should be. For example, containerships that call at U.S. ports often range from 800 feet to more than 1,000 feet long and require many lengths of the ship to come to a complete stop or to alter course. Once at anchor, such ships have the potential to swing in a wide circle around the anchor and chain that has been released to secure the vessel to the ocean bottom.

The Notice and the Coast Guard’s R-Y-G methodology make reference to the United Kingdom’s Maritime and Coast Guard Agency’s “Marine Guidance Note” (MGN) number 371\(^2\), which contains guidance on how wide buffer zones between wind turbines and maritime shipping routes should be. We note that the chart on page 13 of the MGN indicates that buffer zones less than 1 nm would present a “high” to “very high” level of navigational safety risk, buffer zones between 1 and 2 nm in width would present a “medium” level of navigational safety risk, and that buffer zones greater than 2 nm would present a “low” level of navigational safety risk. Given the potential economic damage and costs that would result from an allision between a fixed wind turbine and an oceangoing commercial vessel, we would assume that BOEM and the Coast Guard would agree that the objective should be to achieve a “low” navigational safety risk.

We canvassed our Member companies to obtain vessel masters’ views regarding liner vessel maneuvering characteristics and how wide buffer zones should be. The responses were provided from masters of large liner vessels that are up to 1,000 feet long and displace more than 100,000 tons fully loaded. These vessels make regularly scheduled calls at multiple U.S. ports during each voyage to the United States and frequently transit the coast of North Carolina. The majority of vessel masters stated that 2 nautical miles should be the minimum buffer zone between commercial vessels and wind farm lease areas. Vessel masters indicated that a 2 nm buffer would provide satisfactory maneuvering room to address the most likely contingencies -- loss of steering or propulsion -- and would provide sufficient space for the vessel to anchor in an emergency. Vessel masters also commented that buffer zones should generally increase in width as vessel operating speeds increase to allow for the additional space required for the vessel to maneuver. While liner vessels operating near to shore at speeds between 10 and 15 knots may require a 2 nm buffer zone, vessels operating offshore at speeds in excess of 20 knots (which would be commonly attained by liner vessels transiting along the North Carolina coast), may require a buffer zone of 3 nm or more.

4. **Navigational Safety Exclusions Can and Should Be Applied Before a Call Area is Published**

BOEM officials have stated that just because an area is part of a call for information or other Notice does not mean wind farm leases will be approved in that area. We believe a more reasoned approach would be to apply safety of navigation exclusions for potential lease areas

\(^2\) A copy of MGN 371 may be obtained at: [http://www.emec.org.uk/download/mgn371.pdf](http://www.emec.org.uk/download/mgn371.pdf)
before the proposed lease area is published in the Federal Register. We understand, for example, that BOEM has applied national security exclusions, communicated from the Department of Defense, to proposed lease areas before those areas were published. In the case of the North Carolina Call Areas, we have already noted that the Coast Guard communicated its navigational safety concerns to BOEM more than one year before BOEM published the Call Area. Surely one year provided BOEM with a sufficient amount of time to review and consider the Coast Guard’s concerns and to incorporate appropriate changes to the proposed lease areas to address navigational safety risks. This did not, however, occur for the North Carolina proposed lease areas.

In addition to putting the steps in the RFI development process in the correct logical order, incorporating navigational safety exclusions before soliciting statements of interest from the public is required by law. Regulations promulgated by the Council on Environmental Quality under the National Environmental Policy Act (NEPA) require that: “Agencies shall integrate the NEPA process with other planning at the earliest possible time to insure that planning and decisions reflect environmental values, to avoid delays later in the process, and to head off potential conflicts.” 40 C.F.R. § 1501.2. The rationale behind that requirement applies with particular force here, because safety of navigation and protection of the ocean and coastal environment dictate that traffic lanes must remain free of fixed obstructions. The sooner that is made clear, the more efficient the rest of the wind turbine siting process will be.

Dealing with navigational safety issues at the beginning of the process, rather than after seeking the level of interest in lease bids in an area, would be more logical and would also simplify and streamline the required environmental impact statement process. Finally, an added benefit of this approach – determining and applying safety of navigation exclusions before interest in lease proposals is invited – is that potential lease bidders will not waste their time considering bids for lease areas that will later be excluded for navigational safety reasons.

5. Coast Guard Port Access Route Study Findings Must Be Applied to Proposed Lease Areas

WSC has previously filed comments\(^3\) to BOEM that articulated the need for the Coast Guard to complete an Atlantic Coast Port Access Route Study (PARS) to evaluate existing vessel traffic flows and densities for vessels transiting along the coast and for vessels entering and leaving ports. According to the Coast Guard, the PARS will help identify where appropriate navigational safety exclusion areas should be applied, determine if any changes to existing navigation safety management measures are warranted, and quantify the sizes and locations of buffer zones between vessel traffic routes and wind farm lease areas.

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\(^3\) Those comments may be found in BOEMRE docket numbers BOEM-2011-0005, BOEM-2010-0077, BOEM-2010-0063, and BOEM-2010-0038 and on the WSC website at [http://www.worldshipping.org/public-statements/regulatory-comments/united-states](http://www.worldshipping.org/public-statements/regulatory-comments/united-states).
On July 13, 2012, the Coast Guard published the Interim Atlantic Coast PARS Report (Docket No. USCG-2011-0351), which contains the agency’s interim findings regarding what impact the siting, construction and operation of wind energy facilities might have on existing near coastal users and to preserve the safety of navigation along the OCS. The Interim PARS Report contains, among other things, the following findings and recommendations:

- Recommends that BOEM address navigational safety risks up front rather than at the end of the wind farm development process;
- Incorporates the R-Y-G risk assessment methodology into the PARS process and contains R-Y-G assessment results for all active Atlantic Coast wind farm development areas; and
- Finds that the placement of fixed wind turbines on the OCS not only increases risk of allision between a vessel and a fixed object, but also increases the risk of collision between vessels and increases the risk of individual vessel groundings.

Incorporation of the findings and recommendations in the Interim Atlantic Coast PARS Report (and final report, when completed) into this lease area development process and EA is essential, because wind farm lease areas are being rapidly and simultaneously considered in OCS waters off multiple Atlantic states. The existence of proposed lease areas and the measures intended to resolve navigational safety issues created by those areas can, in turn, create navigational safety issues in other areas and for vessels transiting along the coast. In fact, the most significant impact of lease areas and related navigational safety management measures may not be on the interaction between vessels and wind turbine towers, but rather on the interactions among vessels.

We recommend that BOEM incorporate the Interim Atlantic Coast PARS Report’s findings and recommendations into not only the North Carolina wind farm development process, but also into all other Atlantic OCS wind farm development areas.

6. Conclusion

The World Shipping Council appreciates the opportunity to provide comments to BOEM on its call for information and EA for establishing wind farms in the North Carolina OCS. The effort to site and deploy emerging, clean energy technologies on the OCS should not create risks to the safe transportation of America’s waterborne commerce.

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