



Bureau of Ocean Energy  
Management

**Carolina Long Bay Area**

**Atlantic Wind Lease Sale 9 (ATLW-9)**

**Final Sale Notice (FSN)**

**Response to Comments**

**March 2022**

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## **1 Introduction**

The Bureau of Ocean Energy Management's (BOEM's) mission—as stated in the Outer Continental Shelf Lands Act (OCSLA)—calls for expeditious and orderly development of the Outer Continental Shelf (OCS), while safeguarding the environment and existing uses of the OCS.

On November 1, 2021, BOEM published the *Atlantic Wind Lease Sale 9 (ATLW-9) for Commercial Leasing for Wind Power on the Outer Continental Shelf in the Carolina Long Bay Area—Proposed Sale Notice*. In the Proposed Sale Notice (PSN), BOEM gave stakeholders the opportunity to comment and provide feedback on a number of topics relating to proposed lease sales in the Wilmington East (WE) Wind Energy Area (WEA) within the Carolina Long Bay (CLB) area.

BOEM received 60 comments representing a wide range of views and perspectives. Comments are grouped below by topic, and summaries of comments draw on responses across all stakeholders. The intent of the summaries is to capture the key takeaways and the general breadth of comments. Full text of the comments received is available at [www.regulations.gov/document/BOEM-2021-0078-0001/comment](http://www.regulations.gov/document/BOEM-2021-0078-0001/comment).

The comments received were informative for BOEM's decision-making process, and BOEM's responses to comments are provided below.

## **2 Number, Size, Orientation, and Location of the Proposed Lease Areas**

The area available for sale was proposed to be auctioned as a single lease, Lease OCS-A 0545. The proposed lease area of 127,865 acres included the majority of the WE WEA. BOEM requested input on potentially subdividing the proposed single lease area into as many as three lease areas. BOEM requested comment on the number of leases that should be offered within the proposed lease area, the size and orientation of the lease area(s), as well as any portions of the lease area that should be prioritized for inclusion or exclusion from this lease sale or future lease sales.

### **Comment Summary**

Regarding the number of leases, some commenters responded that dividing the lease area into two leases could result in more competition and economic benefits, while others said that one lease area with one lessee may provide fewer economic benefits but could result in more continuity, increased accountability, and easier communication between stakeholders and the developer. Several respondents requested BOEM divide the lease into two equitable areas with at least 800 megawatts (MW) of capacity each to create market competition, and that BOEM only allow one lease per lessee. BOEM also received feedback with concerns that if lease areas are too small, they might not be viable, and if the leases are split into east and west sections, one section would be in deeper water, farther from shore and less accessible than the other.

Commenters made recommendations that (1) BOEM orient the WE to take advantage of prevailing winds; (2) any delineation of the lease into two or more areas consider impacts of wake effects throughout the areas and making the impacts equitable; and (3) BOEM orient the WE to have equitable distances to shore if the lease is divided into two equitable lease areas.

### **BOEM Response**

The FSN includes 110,091 acres available for lease, which is a 14 percent reduction from the area included in the PSN. The final lease area has the potential to generate more than 1.5 gigawatts of offshore wind energy, which could power over half a million homes and potentially support thousands of new jobs.

Based on commercial interest from 16 developers who submitted qualifications packages, the Federal and State goals for a competitive process, and the comments received in the FSN, BOEM offers two leases: Lease OCS-A 0545 and Lease OCS-A 0546. The delineation of the two lease areas in the FSN represent a balance of existing and future uses with the need for expeditious and orderly development of renewable energy. The delineation of the two areas takes into consideration stakeholder comments while ensuring sufficient area to meet Federal and State renewable energy goals. BOEM has delineated the two lease areas such that both lease areas have similar acreages, distances to shore, resource potential and potential wake effects.

BOEM believes the two lease areas could support either two separate commercially viable areas or one larger commercial project. Therefore, BOEM is also allowing bidders to win one or both areas in the auction to allow for a balance between competitive and economic benefits, and the desire to utilize economies of scale.

The issuance of any lease resulting from this sale would not constitute an approval of project-specific plans to develop offshore wind energy. Such plans, if submitted by the lessee, would be subject to subsequent environmental, technical, and public reviews prior to a decision on whether the proposed development should be authorized. BOEM recognizes that potential conflicts may exist with the lease areas, and new user conflicts may arise as the areas are offered for sale and projects are proposed.

### **3 Transit Corridors**

BOEM requested comments on the potential need for including defined transit corridors within the proposed lease area and the degree to which such corridors might meet potential users' needs. If transit corridors are warranted, what would be the preferred placement and orientation (length, width, etc.) that would facilitate continuance of existing uses? BOEM asked commenters to submit technical and scientific data in support of their comments. Additionally, BOEM sought further comments about whether the Bureau should consider prescribing uniform and aligned turbine layouts in the lease area, and specifically whether the establishment of uniform turbine layouts would negate the need for established transit corridors.

### **Comment Summary**

Comments on transit lanes or no-build lanes in U.S. Coast Guard (USCG) Atlantic Coast Port Access Route Study (ACPARS) include concerns that the proposed transit lanes may not be compatible with potential maritime or fishing operations. Commenters suggested using a different term than “transit corridor” and made requests for more information about transit lanes in other WEAs. BOEM also received recommendations to provide unique layouts across the WEA for greatest development potential.

### **BOEM Response**

***Concerning designating areas within leases as “no surface occupancy” to facilitate marine vessel transit through offshore wind installations:*** This option is generally less preferred by BOEM and the USCG, as it could complicate vessel movement through offshore wind leases, by placing arbitrary lanes that may not reflect area vessel movement. This option could also concentrate competing uses (e.g., fishing and transiting) in these “no surface occupancy” areas rather than encourage dispersal of activities throughout the leased areas, leading to increased potential for vessel collision. Ultimately, if multiple areas are leased in the WEA, BOEM may require lessees to collaborate with their neighbors to design facility layouts with consistent lines of orientation or require each lessee to adopt a setback from the mutual lease boundary. BOEM will avoid using the term “transit corridor,” as the Bureau has neither the authority nor the expertise to designate areas of the OCS for marine navigation. As USCG guidelines already request that structures be oriented along two lines of orientation for an individual facility design. This type of orientation is understood to make offshore wind installations accessible to any vessels that would continue to enter those facilities (e.g. com fishing and recreation vessels), as those vessels could set a straight line course and travel unimpeded. USCG has recommended that when two or more leaseholders cannot align their layouts, layouts should incorporate a mutual setback from the straight line average boundary between those two leases, to provide vessel and USCG helicopter pilots with a visual cue that they need to adjust their course and the sea/air space to perform that course correction (See NYB FSN language, Ocean Wind and ASOW DEIS Alternatives). Accordingly, discussion of NSO areas for transit is often coupled with discussions of aligned layouts and mutual boundary setbacks.

***Concerning nearby coastal Shipping Safety Fairways as proposed by the USCG for rulemaking:*** The only comment letter received concerning navigation did not focus specifically on the feedback requested in the PSN but addressed navigation more broadly. American Waterways Operators (AWO) commented on the potential overlap with future USCG Shipping Safety Fairways. These lanes were developed as a result of ACPARS in 2017 and the subsequent Advanced Notice of Proposed Rulemaking in 2020 to formalize these lanes. Afterwards, in 2020, the USCG issued a Notice of Study indicating its intention to supplement ACPARS with a specific investigation, the North Carolina Port Access Route Study (NCPARS), to investigate any needed updates to the ACPARS Shipping Safety Fairways. As of January 2022, USCG has yet to publish a draft or final NCPARS report, though USCG has indicated that publication is imminent. Currently, there is a slight conflict between a Shipping Safety Fairway and the eastern portion of the PSN areas, as discussed in the Draft Supplemental Environmental Assessment (SEA). Regarding AWO’s request for buffers outside of the designated Shipping Safety Fairways, USCG has confirmed that there

would be no need for additional buffers. The 9-nautical mile (nm) fairway width discussed in AWO's letter is a recommendation from AWO to the USCG that USCG referenced in the ACPARS Final Report but did not specifically adopt. The final lease area defined in the FSN does not include the areas that overlap the Shipping Safety Fairways.

***Concerning Buffers in the Marine Planning Guideline (MPGs):*** In addition to the Shipping Safety Fairways, ACPARS also recommended that BOEM and any lessees adopt a buffer or setback from Traffic Separations Schemes (TSSs), which are formal and internationally recognized vessel lanes, generally used around the world for approaches to ports. These buffers are specific to TSSs. The recommended MPG buffers are a 2-nm setback from the edges of any TSS, and a 5-nm setback from the TSS entryways or exits. USCG has repeatedly stated that the MPGs are a guideline, not absolute. Any deviation should be based on the specific use of an area and analysis showing that MPG buffers are comparatively less necessary. Furthermore, USCG does not specify prohibiting leasing in these areas, but instead recommends that the areas are designated for "no surface occupancy," i.e., these areas could still be leased, and wind installations could be designed to have inter-array or export cables pass through the area.

BOEM removed any aliquots conflicting with the 2-nm MPG buffer, as this buffer is necessary to allow vessels to perform emergency maneuvers. BOEM is providing notification in the FSN pertaining to the aliquots that conflict with the 2-nm MPG buffer.

Aliquots that conflict with the 5-nm MPG buffer were not removed. BOEM determined that removal was not necessary based on analysis of the level of traffic, vessel sizes, and vessel routes. The data reflects a somewhat bimodal on approach to and departure from the TSS, with vessels taking routes that are south-southwest and east-southeast. The vessels approaching from and departing to the more easterly route will not be supported by the 5 NM buffer, as those vessels would need to move their routes further south regardless to avoid the lease areas remaining after removal of the areas conflicting with the 5 NM buffer.

#### **4 Bidding Credits**

As authorized under 30 CFR 585.220(a)(4) and 585.221(a)(6), BOEM proposed using a multiple-factor auction format and bidding system for this lease sale. Under this system, BOEM would consider a combination of a monetary bid and bidding credits in determining the outcome of the auction. The proposed bidding credit would allow bidders to receive a credit of up to 20 percent off their winning bid in exchange for financial commitments to a workforce training program or to development of a domestic supply chain. To qualify, the winning bidder would be required to financially commit at least 80 percent of the bidding credit value toward a workforce training program or development of a domestic supply chain. BOEM would appoint a panel of BOEM employees to review the non-monetary component and to verify the results of the lease sale. BOEM would reserve the right to change the composition of this panel at any time. BOEM invited comments on the proposed bidding system and on the appropriate mechanisms, evaluation metrics, recipient program examples, and relative value of bidding credits for workforce training and supply chain development.

### **Comment Summary**

Commenters generally supported BOEM's multifactor bidding proposal. Many commenters requested larger benefits to underserved communities and more stringent domestic supply chain requirements. A handful of commenters requested specific "Buy America" or domestic content lease stipulations with specific metrics. Other commenters requested bidding credits greater than 20 percent to encourage additional commitments or good corporate citizenship. A few commenters suggested additional penalties for bidders who did not meet their required commitments beyond the underpayment penalty, while others suggested that BOEM allow for partial paybacks where commitments were partially met. Commentors also requested clear guidance on which commitments would be eligible, seeking much certainty and flexibility as possible for developers. A few commenters commented that the Facility Design Report (FDR) stage may be the best benchmark for when lessees must demonstrate to BOEM that their commitments have been met and the most appropriate time for BOEM to determine whether or not the commitments meet the bidding credit requirement. A handful of commenters were concerned that the bidding credit and commitment would have such a low impact that few developers would choose not to qualify for the offered bidding credit. One commenter suggested combining the proposed bidding credits with additional operating fee credits or considering additional factors. Another commenter requested a cash-only, single-factor auction and stated that the regional market could not absorb the commitment BOEM required for the bidding credit.

Specific to underserved communities, commenters were concerned that a bidding credit would risk duplication between State and Congressional initiatives, and BOEM's bidding credit. Other commenters highlighted potential nexuses to OCSLA and discussed mechanisms to achieve benefits to underserved communities.

### **BOEM Response**

In an effort to support environmental justice goals, BOEM has explored many avenues for enhancing benefits to disadvantaged communities. However, BOEM has limited authority in "encouraging" investments towards underserved communities.

BOEM has limited the bidding credit factors to no more than 25 percent of the bid.<sup>1</sup> This is also typically the approach of other State and Federal programs.<sup>2</sup> BOEM considers a 20 percent bidding credit for workforce and supply chain development appropriate as it balances an incentive sufficient to drive lessees to seek domestic solutions with the need to ensure the receipt of a fair return. The 20 percent bid credit for this sale is less than the maximum 25 percent and is anticipated to provide a meaningful boost to domestic offshore wind workforce training and supply chain development. A bidding credits or factors greater than 25 percent may be more likely to favor certain developers or result in less efficient allocations of capital. BOEM has decided to maintain the bidding credit for workforce and supply chain development at a 20 percent credit. A 20 percent bidding credit for the CLB

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<sup>1</sup> Ausubel, Lawrence M. and Peter Cramton (2011) "Multiple Factor Auction Design for Wind Rights," Report to Bureau of Ocean Energy Management, Regulation and Enforcement (p.25).

[https://www.boem.gov/sites/default/files/uploadedFiles/BOEM/Renewable\\_Energy\\_Program/Regulatory\\_Information/AusubelCramtonPaper2.pdf](https://www.boem.gov/sites/default/files/uploadedFiles/BOEM/Renewable_Energy_Program/Regulatory_Information/AusubelCramtonPaper2.pdf)

<sup>2</sup> Ibid.

auction will help develop the domestic supply chain and a well-trained workforce without allocating more money to these purposes than can be efficiently spent.

BOEM will offer the bidding credit without a “cap.” Large investment commitments in Massachusetts, New York, New Jersey, Maryland, and California by States, developers, and other investors have shown there is significant need for investments in ports, the domestic supply chain, and workforce training. The regional market should be able to absorb the CLB workforce and supply chain investments by the time of the developer’s first FDR submission. The greatest opportunity for supply chain development in the region is for tier-2 and tier-3 suppliers, although tier-1 supply chain investments would also be eligible for the supply chain credit which can be found in the FSN and BFF Addendum.

BOEM will not permit lessees to retain an equity investment in return for bidding credit supply chain investments. The intent of the credit is to benefit the entire offshore domestic supply chain, rather than project-specific supply chain components.

BOEM will not be making changes to the bidding credit enforcement provisions. Penalties beyond credit repayment with underpayment interest exceed the Bureau’s authority. A partial credit or contribution will not be accepted. BOEM has determined the 20 percent credit in the CLB auction is both the maximum and minimum credit that should be awarded to maintain fair return and allow for fair competition.

BOEM is offering a bidding credit for workforce training and supply chain development for this lease sale and will not offer an operating fee credit. The bidding credit will allow lessees to determine the most impactful initiatives to train workers and develop the domestic offshore wind supply chain. BOEM believes it is most effective to incentivize these initiatives with a bidding credit rather than an operating fee credit due to the flexibility, timing and sum available.

BOEM did not include a “Buy America” or similar provision but is offering a bidding credit to encourage an efficient allocation of capital to the domestic offshore wind supply chain. The bidding credit will incentivize domestic content while recognizing the current state of the domestic offshore wind supply chain. BOEM, along with its state, federal and industry partners is continuing to explore additional incentives to strengthen the domestic offshore wind supply chain.

## **5 Project Labor Agreements (PLAs)**

BOEM proposed a lease stipulation that would require the lessee to make every reasonable effort to enter into a PLA covering the construction stage of any project proposed for the leased area. The proposed stipulation is responsive to Executive Order 14008 and would support BOEM’s achievement of OCSLA policies to promote expeditious and orderly development, safe operations conducted by well-trained personnel, and the carrying out of all activities in a safe manner.



### **Comment Summary**

Most commenters were supportive of the proposed PLA requirement. Many highlighted the benefits of apprenticeship programs and the resulting likelihood of improved safety measures and timelines. However, a few commenters requested the ability to negotiate PLAs on a State-by-State or project-by-project basis.

### **BOEM Response**

BOEM has decided to retain the PLA provision, with consideration of the right-to-work status of North Carolina and South Carolina, which specifies that any PLA provisions for the construction phase of a project apply to all contractors.

## **6 Stakeholder Engagement**

In an effort to require early and regular lessee engagement with affected stakeholders, BOEM requested comments on its proposal for lease stipulations that would require lessees to prepare communication plans and provide semi-annual (i.e., every 6 months) progress reports summarizing engagement with Native American Tribes and ocean users potentially affected by proposed activities on the lease or proposed project easement. The progress reports would identify and describe the following: all existing users; the lessee's engagement with those users; efforts to avoid, minimize, or mitigate any conflict between the existing users and the lessee; disproportionate impacts to environmental justice communities; and planned next steps to engage those users and address identified conflicts. BOEM sought comment on this concept generally, as well as comment on the contents and timing of such reports.

Additionally, BOEM sought comments on coordinated engagement and methods to improve coordination and engagement among lessees, federally recognized Tribes, and other stakeholders. Specifically, BOEM solicited input on how to improve the frequency, duration, and sustainability of collaborative engagement among these parties, as well as the preferred form it should take (in-person, webinar, facilitated meeting, etc.). BOEM recognizes its responsibility under Executive Order 13175 to conduct government-to-government consultations with Tribal governments. Coordinated engagement between federally recognized Tribes and lessees that may be required in a future lease would be in addition to BOEM's responsibilities. To illustrate the intent of this question, one possible lease term could be to require lessees to hold coordination meetings at regular intervals throughout the year (i.e., quarterly, biannually, annually, etc.). During these meetings, lessees would share information and updates about their activities with federally recognized Tribes and other stakeholders and solicit feedback and input about lessee activities. Such meetings would not substitute for government-to-government meetings between Tribes and Federal agencies, including BOEM.

### **Comment Summary**

Multiple commenters recommended that BOEM require lessees to engage in meaningful outreach with ocean stakeholders and the public throughout the life of the project and not just in the planning stages.

BOEM received comments on the importance of collaboration and communication with Federal partners and stakeholders. Commenters generally encouraged BOEM to work closely with other Federal agencies (e.g., the National Oceanic and Atmospheric Administration and the U.S. Fish and Wildlife Service) and representatives of the commercial fishing industry to ensure that decisions incorporate the most accurate and up-to-date information. Additionally, several comments were received recommending that, both prior to the leasing of areas and after their development, BOEM conduct further consultation with affected fisheries to understand the projects' cumulative impacts on the entire Southeast Shelf Regional Ecosystem.

BOEM received comments suggesting that the Bureau incorporate an adaptive management plan for the stakeholder engagement process, without creating prescriptive stipulations that are difficult to measure. Additionally, stakeholder engagement should not be included as lease stipulations but rather as guidance or a Notice to Lessees in order to provide a programmatic interpretation for consistency across all of BOEM's leases.

BOEM received criticism of its outreach done to date to inform the decision to advance leasing in 2022. This feedback included a perceived lack of meaningful community engagement and discontent over BOEM's ability to adequately address concerns that have been raised in previous engagement. Commenters also expressed concern over whether future stakeholder engagement would adequately address social and economic impacts from offshore wind development.

### **BOEM Response**

BOEM recognizes the need for and importance of early, consistent, transparent, and meaningful engagement between lessees and Tribes, ocean users, underserved communities, and other stakeholders potentially affected by lessees' project activities on the OCS ("Tribes and parties").

In response to comments, BOEM will expand the previously used lease stipulation to require semi-annual progress reporting. The requirement to provide progress reports will now extend beyond the end of the site assessment term and continue until approval any Construction and Operations Plan(s) (COP) submitted on the lease. Incorporation of any additional engagement requirements through the project's construction, operation, and decommissioning may be considered as conditions of COP approval.

Within the progress reports, lessees should identify Tribes and parties potentially affected by proposed activities and provide updates on engagement activities. The reports should document potential adverse effects from the lessee's project to the interests of Tribes and parties. The reports should also describe how a project has been informed or altered to address those potential effects and any planned engagement activities during the next reporting period. BOEM will review progress reports and provide a feedback mechanism for Tribes and parties to comment on the reports. Where appropriate, BOEM will pass comments along to the lessee to be addressed. Should the lessee not address the comments provided by BOEM in a timely and adequate manner, BOEM reserves the right to require specific mitigation (e.g., third party verification or mediation at the lessee's expense or alteration and/or adjustment of the required reporting frequency).

In acknowledgment of the existing and growing consultation burden placed on many affected Tribes and other parties, the stipulation also requires, to the maximum extent practicable, that lessees coordinate with one another on engagement activities. It is BOEM's intention that this requirement to coordinate engagement apply not only to meetings proposed by lessees, but also to reasonable requests to coordinate engagement requested by Tribes and parties. In addition, the progress report incorporates communication plans for fisheries (Fisheries Communication Plan [FCP]), Tribes (Native American Tribes Communication Plan [NATCP]), and agencies (Agency Communication Plan [ACP]), which serve to guide engagement activities with those groups.

BOEM appreciates commenters' recommendation that engagement be adaptive and, for the sake of consistency, available as guidance to all BOEM's active leases. The lease stipulation is intended to create an adaptive, cyclical process that would be responsive to comments provided by Tribes and parties through engagement efforts and refined during each reporting period. BOEM is considering the development of progress reporting implementation guidance that would be made available to all existing lessees.

BOEM will continue to explore options to build upon and improve its own engagement practices with affected Tribes and parties, including affected fisheries and coastal communities. BOEM appreciates the public's participation in the Bureau's decision-making process and the fact that individual stakeholders expressed their opinions regarding decisions about offshore wind development. If a COP is submitted, BOEM will prepare National Environmental Policy Act (NEPA) analyses. The analyses would most likely take the form of an environmental impact statement (EIS) and include additional public comment and analyses of cumulative activities, including other offshore wind development, pursuant to NEPA.

## **7 Rent**

BOEM proposed simplifying the calculation for rental fees once commercial operations have begun. The simplification would divide the leased area into "generating" and "non-generating" acreages and would use the "non-generating" acreage as the basis for the rental calculation. BOEM requested comments on the proposed rental calculation changes.

### **Comment Summary**

Only one commenter responded regarding the rental rate. This commenter was generally supportive of the proposed simplification; however, they requested that BOEM reconsider rental fees on portions of the lease where development has been restricted as a condition of COP approval.

### **BOEM Response**

BOEM is moving forward with the rental rate simplification as described in the FSN. Regarding areas where development may be restricted as a condition of COP approval, a Lessee may apply at any time to relinquish all or a portion of its lease in accordance with 30 CFR 585.435, subject to BOEM's approval.

## **8 Industry Standards for Environmental Protection**

BOEM requested input on whether there are new industry standards (e.g., technology standards, vessel standards, etc.) for environmental protection for any phase of development for BOEM to consider.

### **Comment Summary**

Several letters from union organizations—including the American Federation of Labor and Congress of Industrial Organizations, the International Brotherhood of Electrical Workers, and others—were submitted in support of the development and encouraged use of skilled labor, such as is available within the context of a labor union.

Commenters recommended that BOEM maintain flexibility for environmental protection and impact mitigation efforts taken in different lease areas, which can be variable. Given the rapid advancements in technologies and a growing supply chain, the implementation of prescriptive standards too early in the process may interfere with a project's development timeline, create unnecessary delays and inefficiencies, and impact the ability of BOEM and consulting agencies to advance projects through the Federal permitting process. Any changes to environmental standards should not be addressed through lease stipulations, but rather handled during the permitting process as issues arise.

BOEM received comments to adopt a mitigation hierarchy within the lease area and FSN for all phases of development and operations to clarify expectations that lessees first avoid, then minimize and mitigate, potential environmental impacts from all stages of offshore wind development, and that monitoring stipulations be a critical part of informing the implementation of this hierarchy

Additional comments recommended that the FSN incentivize developers to evaluate and, if feasible, adopt “quiet” fixed foundations. Environmental stipulations and incentives should be based on the best available scientific information, and as detailed in the SEA Scoping Comments and recent comments to the Notices of Intent to prepare an EIS for the Avangrid Kitty Hawk and Dominion Coastal Virginia Offshore Wind Commercial Projects.

### **BOEM Response**

BOEM appreciates the suggestions provided by the commenters and considered them in the context of the current decision as documented in the SEA and will continue to consider these comments at the appropriate times in future decisions. In order for BOEM to evaluate environmental impacts from offshore wind development, BOEM requires a lessee's SAP or COP to demonstrate measures for avoiding, minimizing, reducing, eliminating, and monitoring environmental impacts. Specific details of a proposed project—such as turbine sizes, foundation types, layout, distances to shore—are not available until BOEM receives a COP. After BOEM receives a COP, the Bureau will review the proposed project's potential impacts on other ocean uses as part of BOEM's environmental and project review process, which would be a separate NEPA analysis from the SEA. This analysis could result in the identification of potential mitigation measures and/or terms and conditions as part of any potential project approval.

## **9 General Input**

BOEM encouraged stakeholders to comment on any matters related to this lease sale that are of interest or concern to them.

### **Department of Defense (DOD) Impacts: Comment Summary**

One commenter noted the potentials for conflicts with DOD operations and requested that BOEM not allow wind turbines to be built in the WE WEA, or, if wind turbines are installed, that the Bureau relocate the WEA to mitigate impacts to critical military training.

### **BOEM Response**

Since the beginning of this leasing effort, BOEM has coordinated extensively with the DOD Military Aviation and Installation Assurance Siting Clearinghouse (Clearinghouse) within the Office of the Assistant Secretary of Defense (Sustainment) and USCG to understand their activities and identify areas of least conflict. DOD's assessment of the broader planning areas, including the Wilmington East and West WEAs and Call Areas located offshore South Carolina, was completed on February 13, 2020. DOD's assessment identified potential conflicts in the broader planning area, particularly where planning areas overlapped activities occurring within DOD Warning Areas. The South Carolina Air National Guard's comments expressed concern with potential impact on training activities in the Warning Areas and on radar use within the area. The FSN lease areas do not fall within the DOD Warning Areas, and the Clearinghouse has subsequently confirmed that any potential conflict in the lease area is more appropriately addressed during the COP review stage, when specific project details are available, and avoidance and mitigations measures can be developed in response to any identified conflicts.

As a condition of project plan approval, when necessary, BOEM requires the lessee to enter into a Mitigation Agreement with the North American Aerospace Defense Command (NORAD). Under the terms of that agreement, the lessee must notify NORAD for Radar Adverse-impact Management (RAM) scheduling and contribute funds toward the execution of the RAM.

The Clearinghouse funded an effort proposed by Massachusetts Institute of Technology Lincoln Laboratory (MIT LL) to conduct an analysis of the feasibility of developing a multi-static receiver augmentation system to counter the effects of onshore wind turbine interference on air route surveillance radars (CARSR, ARSR-4, ASR-11, and DASR). Analysis indicates that the multi-static extension of ASR-11, CARSR, and ARSR-4 systems is feasible, and modeling indicates that substantial recovery of lost (radar) performance (except at very low altitudes) due to wind turbine interference is possible at many sites. The MIT LL team confirms that this technology is compatible with offshore wind turbines. Prior to full deployment, MIT LL must complete the algorithm development and multi-sensor analysis and perform a single site operational evaluation.

**Viewsheds: Comment Summary**

Commenters from local communities acknowledged that, though some communities experience economic and tourism benefits of WEAs close to shore, some communities do not want turbines to be visible from shore.

One commenter expressed concerns about negative impacts to home values and impacts to businesses in the Village of Bald Head Island (BHI), NC, and requested that BOEM review previous submissions from other concerned citizens and locally elected officials and that BOEM should revise the lease area within the WE WEA to exclude blocks closer than 24 nm from shore. The commenter indicated that this approach would be consistent with BOEM's original definition of the Kitty Hawk WEA in 2014, in which BOEM situated the WEA boundary 24 nm from shore in response to visual impact concerns raised by the National Park Service and the Village of Kitty Hawk. The commenter expressed disappointment over BOEM not following recommendations outlined by the Consensus Building Institute in the 2018 "North Carolina / South Carolina Offshore Wind Stakeholder Assessment" to engage in a substantive conversation with BHI and conduct additional public workshops to resolve visual impact concerns in advance of a lease sale; the commenter requested that BOEM follow through with this recommendation.

**BOEM Response**

In response to this feedback, BOEM removed 13,474 acres in the northern portion of the proposed lease area in the PSN. The FSN lease areas are now located approximately 20 statute miles from shore to reduce potential wind turbine visibility in future proposed projects. BOEM did not select a full 24-nm setback as requested by several commenters; BOEM believes its post-lease issuance process will allow for further minimization of potential impacts. Lease stipulations require lessees to engage potentially affected communities, and BOEM will continue to evaluate feedback and information on visual impacts during COP review, when specific details of a proposed project—including turbine sizes, layout, distance to shore, and visual impacts—will inform BOEM's decision on any projects proposed in the lease area(s). BOEM's analysis of the COP could result in the identification of potential mitigation measures and/or terms and conditions as part of any potential project approval.

**General Environmental: Comment Summary**

Commenters suggested that BOEM carefully consider stipulations and include stipulations that focus on preventing rather than mitigating negative environmental, ecological, and economic impacts. Commenters recommended that lease stipulations include strong monitoring programs to gather environmental data and information, especially data related to impacts to marine mammals, avian species, and viewsheds, before and during construction.

BOEM also received comments requesting that studies specifically on Dynamic Management Areas (DMAs) be considered in areas adjacent to North Atlantic right whale (NARW) critical habitat.

**BOEM Response**

BOEM adheres to the standard mitigation hierarchy, which stipulates that impacts be wholly avoided where possible and mitigated to the full extent when it is not possible to avoid some level of impact. BOEM is working with the National Marine Fisheries Service (NMFS), the States of North Carolina and South Carolina, industry, and environmental non-governmental organizations (eNGO) to develop long term monitoring programs designed to enhance our understanding of impacts and appropriate mitigation measures to employ. Additionally, BOEM has a robust studies program and solicits study ideas annually. BOEM has supported and continues to support numerous studies focused on NARWs, including aerial and vessel-based surveys to gather data to help inform NARW movements and identification of critical habitat.

Unless otherwise authorized by BOEM, Lessee's OCS activities must comply with the standards in the Project Design Criteria and Best Management Practices which include DMA requirements and can be found in BOEM's notice (<https://www.boem.gov/sites/default/files/documents/PDCs%20and%20BMPs%20for%20Atlantic%20Data%20Collection%2011222021.pdf>) last revised on November 22, 2021.

The 2021 BA and letter of concurrence from which these measures were derived may be found here: (<https://www.boem.gov/renewable-energy/nmfs-esa-consultations>). At the Lessee's option, the Lessee, its operators, personnel, and contractors may satisfy this requirement by complying with the NMFS-approved measures to safeguard protected species that are most current at the time an activity is undertaken under this lease, including but not limited to new or updated versions of the 2021 BA or 2021 NMFS Letter of Concurrence, or through new or activity-specific consultations.

**Sound Propagation: Comment Summary**

In the PSN, BOEM proposed that the lease stipulations no longer specify exclusion zones for sound propagation from geophysical survey equipment, vessel strike avoidance measures, or protected species observer procedures. One commenter supported BOEM's proposal and agreed that mitigation measures developed through Endangered Species Act (ESA) consultations and NMFS-issued Incidental Harassment Authorizations (IHAs) are the proper avenue for determining exclusion zones on a site-specific basis.

**BOEM Response**

BOEM will stipulate in leases that lessees are required to follow reasonable and prudent measures developed with NMFS through the ESA consultation process, as well as measures developed through Marine Mammal Protection Act (MMPA) regulations and authorizations. This process would allow BOEM to update requirements based on best available information at that time without altering previous conditions of leases. This approach would also allow BOEM and developers working with NMFS to more easily update mitigation measures as new information becomes available.

**ESA: Comment Summary**

One commenter requested that BOEM include necessary mitigation measures with respect to NARWs in the FSN and lease stipulations directly. The commenter also noted that the documents BOEM has released regarding wind energy leases in the CLB are not based on the “most up-to-date science” and include measures that are under-protective of imperiled species. BOEM received the comment that lease stipulations in the FSN should require vessel strike reduction measures for large whales.

**BOEM Response**

Through lease stipulations, BOEM will require that lessees follow the reasonable and prudent measures of BOEM’s Section 7 ESA consultations with NMFS, as well as the terms and conditions of MMPA regulations and authorizations. This approach would more readily allow NMFS and BOEM to update best management practices as new information and new mitigation methods become available, ensuring that the best currently available science is being used. These measures include vessel strike avoidance measures, marine debris reduction measures, and measures to reduce disturbance to protected species .

**NEPA: Comment Summary**

BOEM received the comment that because these comments on the PSN are being submitted in advance of the Final SEA, commenters are also lacking the benefit of that analysis. This timeline makes it difficult to ensure that the analysis in the EA informs public comment and agency decision-making. The commenter encouraged BOEM to consider the public input it receives on the Draft SEA and PSN to improve both the Final SEA and the FSN.

**BOEM Response**

BOEM has considered the public input it received on the Draft SEA and PSN to improve both the Final SEA and the FSN. In addition to comments received on the PSN under Docket no. BOEM-2021-0078, BOEM received separate comments on the Draft SEA, under Docket no. BOEM-2021-0090. The Draft SEA was subsequently revised based on comments received during the comment period and public information meetings and provided responses to comments in Appendix B of the Final SEA.