



Bureau of Ocean Energy
Management

Gulf of Mexico Wind Lease Sale (GOMW-2)

Response to Comments

August 2024

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1. Introduction

The Bureau of Ocean Energy Management's (BOEM) mission, as well as its governing statute, the Outer Continental Shelf Lands Act (OCSLA), calls for expeditious and orderly development of the OCS, while also safeguarding the environment and its existing uses. On March 19, 2024, BOEM published the Proposed Sale Notice for Commercial Leasing for Wind Power Development on the Outer Continental Shelf in the Gulf of Mexico (PSN). The PSN public comment period closed on May 20, 2024. BOEM received a total of 25 public comment submissions. The comments were received from a variety of governments and stakeholders and represent a wide range of views and perspectives, which were very informative to BOEM's decision-making process. BOEM appreciates the time and energy put into the comment development and has afforded careful consideration of all comments received. Given the volume and density of the comments, BOEM has provided a summary of the comments received and associated responses.

2. General Comments on the PSN

Summary of Comments:

Many commenters provided general feedback in response to the PSN request for comment. Approximately 22 commenters expressed some degree of support for offshore wind development. Renewable energy companies, union representatives, and individual commenters requested a quick and efficient approval process for potential projects, citing the potential for carbon reduction, new jobs, and support for the local economy. Several commenters stated that offshore wind must be developed in a reasonable and responsible way to protect ocean resources. By contrast, other commenters expressed general opposition to offshore wind development.

BOEM Response:

BOEM appreciates the public's participation in our process and the fact that individual stakeholders took the time to express their opinions regarding decisions about offshore wind development. BOEM recognizes the important role that offshore wind can play in the effort to decrease carbon pollution and understands the need for efficient yet thorough vetting of these projects. In accordance with BOEM's renewable energy regulations, the submission (and BOEM's potential subsequent approval) of a Construction and Operations Plan (COP), which is a detailed plan for construction and operation of a wind energy facility on a lease, allows the lessee to construct and operate wind turbine generators and associated facilities for a specified term. If a lessee submits a COP, BOEM will prepare a National Environmental Policy Act (NEPA) analysis. This would most likely take the form of an environmental impact statement (EIS) and would further analyze cumulative impacts, pursuant to NEPA.

3. Number, Size, Orientation, and Location of the Proposed Lease Areas

Summary of Comments:

BOEM solicited comments in the PSN regarding the number, size, orientation, and location of the proposed lease areas and transit corridors. BOEM received some comments in response to this topic, and for the purposes of response development, we received comments only in the following category:

- Delineation of Lease Areas Offered

3.1 Delineation of Lease Areas

Summary of Comments:

BOEM received a comment concerning the potential impacts of the development of the proposed Lease Areas on commercial and recreational fisheries, as well as the habitat features that support the productivity of those fisheries. The comment included the request to remove or defer particular Lease Area blocks or to avoid particular habitat features, especially those used for shellfish fishing.

Specifically, the Southern Shrimp Alliance (SSA) requested that BOEM modify all four Lease Areas to remove specific blocks. SSA also requests that BOEM consider applying a 1 nm setback on Lease Area boundaries that are in closest proximity to high shrimp fishing activity immediately outside of the Lease Area boundaries.

BOEM Response:

BOEM worked closely with the SSA to ensure that shrimping areas remained outside of the Lease Areas. When prioritizing these areas, they were assigned values dependent on how often they were used for shrimping. The areas that SSA is now requesting to be removed received a low priority in modeling and that is why they remain in the Lease Areas.

4. Transit Corridors

Summary of Comments:

One commenter provided feedback on transit corridors.

The SSA requests that BOEM review the NOAA and U.S. Coast Guard AIS data such as is set forth in BOEM's report, "A WIND ENERGY AREA SITING ANALYSIS FOR THE GULF OF MEXICO CALL AREA", along with any other available shrimp vessel location tracking data to

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determine the extent to which such transiting by federally permitted shrimp vessels and their navigational safety will be impacted. Based on the analysis of that data, SSA further requests BOEM, in consultation with USCG and NOAA, to determine if transit corridors are warranted for both fishing operational and safety reasons and should be included in the Final Sale Notice (FSN) for these proposed lease areas and if so, as stated in the PSN, “what would be the preferred placement and orientation (length, width, etc.) that would facilitate continuance of” shrimp vessel transiting through these areas.

BOEM Response:

Members of the fishing community have requested that offshore wind (OSW) energy facilities be designed in a manner that, among other things, provides for safe transit to fishing grounds where relevant. The information currently available does not indicate that transit corridors are warranted. However, at the COP stage, BOEM may nonetheless consider designating portions of the Lease Areas as areas of no surface occupancy to facilitate vessel transit and continuity of existing uses.

The USCG announced on March 10, 2023, that it is conducting a Port Access Route Study (PARS) to evaluate the adequacy of existing vessel routing measures and determine whether additional vessel routing measures are necessary for port approaches to Galveston Bay and Sabine Pass, Texas; Calcasieu Pass, Louisiana; and international and domestic transit areas in the Eighth Coast Guard District area of responsibility (AOR). BOEM is coordinating closely with the USCG to address potential maritime impacts from any future OSW development in the Lease Areas, including lessees’ development of a Navigation Safety Risk Assessment (NSRA) to satisfy the COP information requirements of 30 CFR 585.627(a)(8). BOEM defers to the USCG’s authority and expertise regarding vessel transit and navigation safety and is not prescribing vessel routing measures at the leasing stage.

BOEM has not included buffers, setbacks, or areas of no surface occupancy in the final Lease Areas or lease stipulations to maintain the size of the Lease Areas offered and to preserve flexibility for lessees to design appropriate layouts at the COP stage. The COP stage is the point at which survey and site assessment data are available to inform the design, coordination between neighboring lessees and among stakeholders may be undertaken, and NSRAs may be developed. At the COP stage, BOEM may consider designating portions of the Lease Areas as areas of no surface occupancy to facilitate vessel transit and continuity of existing uses. The lease stipulations requiring engagement and an Agency Communications Plan (ACP), Fisheries Communications Plan (FCP), and Native American Tribes Communications Plan (NATCP) will ensure that discussions with important constituencies continues, and facilitate the lessees’ design and implementation of projects that minimize, mitigate, and/or redress the projects’ adverse effects.

5. **Benefits to Underserved Communities**

Summary of Comments:

A few commenters provided feedback on lease stipulations that would benefit underserved communities. Commenters generally supported BOEM's goals to benefit underserved communities, programs that deliver environmental justice, and minority- and women-owned-businesses.

One commenter encouraged BOEM to mandate that the eventual leaseholder identify and specify the preferential hiring of former foster children, others who have experienced Adverse Childhood Experiences (ACE), and minorities. It is particularly important that BOEM specify that those who have had involvement with the child welfare system are to be included as many forget that they are a historically forgotten and marginalized group.

Another commenter continues to assert that BOEM must apply to the Gulf shrimp fishery President Biden's policies regarding Equity and Environmental Justice as set forth in his various Executive Orders. Historically, the Gulf shrimp fishery community has in many ways been forced to bear a disproportionate burden of meeting this Nation's energy needs through the development and operation of the offshore oil and gas industry in the Gulf.

BOEM Response:

BOEM cannot mandate specific hiring practices beyond those already required by law.

BOEM considers and adheres to pertinent environmental justice-related policies and guidance. As part of this, communities that meet the definitions of environmental justice and/or underserved communities are considered as such in agency environmental analyses and decision making. Additionally, BOEM proposes a lease stipulation requiring a Fisheries Communication Plan to minimize conflicts with the fishing community, as well as bidding credits for the Fisheries Compensatory Mitigation Fund, which is intended to mitigate potential negative impacts to commercial and for-hire recreational fisheries.

6. **Bidding Credits**

BOEM solicited comments in the PSN regarding the proposed bidding credits. BOEM received numerous comments on bidding credits and for the purposes of response development, they have been broken down into sub-categories in this section.

General comments

Multiple commenters expressed support for “the multi-factor bidding structure” and for BOEM’s proposal to use two bidding credits. Some commenters request that BOEM consider increasing the total amount of bidding credits beyond 25 percent of the cash bid. Two commenters urged BOEM to make bidder’s conceptual strategies available to the public.

Other commenters urged BOEM to add additional bidding credits. These included community benefit agreements, environmental justice compensation funds, potential unavoidable impacts to migratory birds, and conservation-related bidding credits.

BOEM Response:

BOEM received many comments expressing support for a variety of bidding credits, including conservation bidding credits. BOEM will continue to consider comments received and will identify any actions needed to consider such credits in future lease sales.

BOEM will continue to limit the multiple-factor component of the bid to 25 percent. This limit has applied to previous BOEM lease sales and represents a balance between advancing goals of OCSLA and providing a fair return to the Government for rights granted. Previous versions of bidding credits were calculated using a percentage of the cash bid. For GOMW-2, bidding credits have been proposed to be calculated as a percentage of the total bid. This adjustment to the calculation results in a marginally higher actual, or effective, bidding credit share.

A bidder’s Conceptual Strategy may contain proprietary or confidential information and BOEM will continue to protect that confidentiality.

6.1 **Bidding Credit for Fisheries Compensatory Mitigation Fund**

BOEM solicited comments in the PSN regarding general questions relevant to the Bidding Credit for Fisheries Compensatory Mitigation Fund.

One commenter noted with disappointment that the PSN issued for GOMW-1 included the following permissible use of the funds that does not appear in this GOMW-2 PSN: “Promote research into the coexistence of multiple ocean industries.” Another commenter recommended that BOEM research and monitoring be included as an allowable expense under this bidding credit. Allowing for mitigation of upstream and downstream shoreside impacts, as well as

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reviewing a Technical Memorandum of Offshore Wind Impacts published by NOAA were also urged by a commentors.

Another commenter strongly supports BOEM's continued use of the multi-factor auction format with bidding credits for workforce and supply chain development and a fisheries compensation fund. The commenter recommended that BOEM maintain maximum flexibility regarding potential uses of the fisheries bidding credit funds in the Gulf of Mexico region, and not limit or prioritize their initial use solely to gear loss or damage and income loss.

Another commentator feels that BOEM should ensure that the bidding credit language allows for the flexibility for proceeds from each bidding credit to be pooled into a fund that covers the entire Gulf region. This would allow a regional fund to create administrative efficiencies that relieve burdens from federal and state regulators, lessees, and fishermen; and would make it easier to incorporate bidding credits from future Gulf lease sales. This commenter also strongly encourages BOEM to increase the bidding for fisheries compensation from 8% to 13%. An increase in credit is essential to ensure that the fund is established with sufficient resources to cover claims.

BOEM Response:

While the Fund's priority is to compensate fishers for gear loss or damage and income loss, funds that have been determined to be in excess of meeting that need can be used to promote participation of fishers and fishing communities in the OSW project development process or other programs that better enable fishing and OSW industries to coexist or to offset the cost of gear and navigational aid upgrades and other transitions for operating within a wind farm. The allowed funding for engagement or participation activities and gear or navigational upgrades is intended to provide flexibility to fund administrators. While income and gear loss are the fund's priority, if there are excess funds, other fishing needs directly related to GOM OSW impacts may be addressed.

The Fisheries Compensatory Mitigation Fund bidding credit and associated requirements are intended to assure fishing stakeholders that impacts to fisheries from lease development will be mitigated, and are only one of many methods by which BOEM can require impact mitigation. It is not the intent of the bidding credit to cover research, living resource surveys and monitoring that may be affected by lease development. If BOEM identifies a need during project plan and EIS reviews for monitoring or other data gathering, it will be addressed in the terms and conditions of COP approval or other agreement.

The Fund must cover the impacts of each stage of OSW development and must provide compensation for lost or damaged fishing gear as well as lost income resulting from impacts on OSW projects that are built on OCS wind energy leases and easements in the GOM. These impacts can occur during preconstruction, construction, operation, and decommissioning. While the Fund's priority is to compensate fishers for gear loss or damage and income loss, funds that have been determined to be in excess of meeting that need may be used to promote participation of fishers and fishing communities in the OSW project development process or other programs

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that better enable fishing and OSW industries to coexist and to offset the cost of gear and navigational aid upgrades and other transitions for operating within a wind farm. The allowed funding for engagement or participation activities and gear or navigational upgrades is intended to provide greater flexibility to fund administrators.

BOEM acknowledges potential impacts to shoreside services from the development of offshore wind leases. BOEM's draft Guidelines for Mitigating Impacts to Commercial and Recreational Fisheries on the Outer Continental Shelf address shoreside impacts and these potential impacts will be addressed in the terms and conditions of COP approval.

BOEM reviewed the NOAA technical memorandum, "Fisheries and Offshore Wind Interactions: Synthesis of Science." The memorandum, in Chapter 2.2 Fisheries Economic Impacts, provides a synthesis of potential and possible economic impacts to fisheries by OSW development. The memorandum also acknowledges there are local and regional differences and stakeholder engagement on the economic impacts to fisheries is critical. The bidding credit for the Fisheries Compensatory Mitigation Fund recognizes these differences and is encouraging a regional GOM fund that will provide equitable compensatory mitigation for GOM fisheries impacts caused by OSW development.

This Fund must compensate for losses "incurred as a result of project development under this lease." BOEM encourages the use of a regional GOM fund, as the proposed lease states that "Lessees are encouraged to coordinate with other lessees to establish or contribute to a regional fund mitigating impacts from multiple offshore wind leases in the GOM." A regional fund will pool resources and provide administrative efficiency. Lessees can support all impacted groups through one fund and key stakeholders, including lessees and fishers, would be included in a uniform governance structure. BOEM expects a regional fund would be a vehicle that is most likely to adjudicate all claims equitably without disparate treatment of varied fishing interests or claims against different lessees. BOEM will continue to evaluate the potential funding needs for compensating fishing impacts from OSW activities and can adjust bidding credits for a fisheries' compensatory mitigation fund in future GOM lease sales.

BOEM agrees that it is impossible to know if a Fisheries Compensatory Mitigation Fund would adequately compensate for impacts. The fund would support fisheries compensatory mitigation efforts. A COP approval would describe fisheries compensatory mitigation and other lessee obligations for the construction stage and beyond, consistent with project specific NEPA analysis. If compensatory mitigation is greater than the available bidding credit funds, the lessee will propose a method to adequately compensate fisheries impacts.

6.2 Bidding Credit for Workforce Training and/or Domestic Supply Chain Development

Most commenters were supportive of this bidding credit, although many offered feedback on ways to improve its efficacy. Some commenters urged BOEM to require a reasonable amount of domestic content be utilized, or to specifically require that Justice40 initiatives are promoted through the bidding credit.

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One commenter requested that BOEM include green hydrogen production work programs. Another commenter requested that the supply chain development eligibility be expanded to include additional types of investment in port infrastructure.

BOEM Response:

OCSLA does not authorize BOEM to prescribe labor provisions, domestic content, manufacturing, or assembly for offshore wind components used to construct OCS offshore wind projects. The supply chain bidding credit is being offered to assist the development of the domestic offshore wind industry through incentivizing investments that may not otherwise occur. BOEM encourages union apprenticeships and labor management training partnerships but cannot require specific programs.

BOEM finds that there is a significant need for specialized training for the offshore wind workforce. Lessees can work with states and stakeholders in making workforce and supply chain investments to determine those that will provide the greatest value for advancing the domestic offshore wind industry. The best use of workforce training bidding credits is for offshore wind, rather than hydrogen production.

BOEM's leasing program is not a Justice40 covered program and BOEM cannot stipulate that lessees adhere to the Justice40 initiative. In an effort to support environmental justice goals, BOEM has explored many avenues for enhancing benefits to disadvantaged communities. BOEM lacks the authority to direct lessees to invest in, or hire, specific parties, and has limited authority to "encourage" investments towards underserved communities. BOEM has included lease stipulations requesting lessees to "identify and engage with underserved communities, including environmental justice communities that may be disproportionately impacted by a project's OCS activities, in order to avoid, minimize, and mitigate potential adverse effects by, for example, investing in these communities". BOEM included "workforce diversity, training, and development, including within underserved communities and with Tribes" as well as "ensuring equal access to contracting opportunities, including to disadvantaged businesses and wholly owned Tribal businesses" in the required supply chain Statement of Goals of each lease in this sale. The Domestic Supply Chain bidding credit gives the lessees an opportunity to qualify for the bidding credit by committing to "establishing a new or existing bonding support reserve or revolving fund available to all businesses providing goods and services to offshore wind energy companies, including disadvantaged businesses, and/or wholly owned Tribal corporations." BOEM cannot use bidding credits to incentivize programs in environmental justice or other underserved communities that are not directly impacted by OSW activities. BOEM is not offering a bidding credit for entering into a Community Benefit Agreement, but has proposed to offer a bidding credit for a committing to contribute to a fisheries compensatory mitigation fund.

With regard to port infrastructure, the Domestic Supply Chain Bidding Credit is limited to offshore wind component manufacturing and preparation of quayside manufacturing and assembly areas for the construction and deployment of foundations or other components of offshore wind turbines.

7. **Project Labor Agreements**

Summary of Comments:

There were some comments of support for BOEM to include a stipulation for Project Labor Agreements (PLAs) for construction activities. One commenter felt that BOEM must stipulate that lessees and their subcontractors enter into Labor Project Agreements (LPAs) with applicable unions for work involving the operations and maintenance of offshore wind projects on the OCS. Another commenter fully supports the inclusion of PLAs. Another comment stated that must stipulate that lessees and their subcontractors enter into LPAs with applicable unions for work involving the operations and maintenance of offshore wind projects on the OCS. Requiring PLAs and LPAs for offshore wind projects is an ideal means of implementing President Biden’s directive to “secure environmental justice and spur economic opportunity for disadvantaged communities that have been historically marginalized and overburdened by pollution and underinvestment in housing, transportation, water and wastewater infrastructure, and health care,” because it will help these workers have a voice on the job to advocate for better working conditions, thus raising standards for the industry and region. This is especially vital in Texas, where workers face lower unionization rates, lower wages, lack of benefits, rising income inequality, and a higher proportion of immigrant workers and workers of color than in comparable states in the Midwest and Northeast.

BOEM Response:

BOEM has added a lease stipulation requiring lessees to make every reasonable effort to enter into a PLA covering the construction stage of any project proposed for the leased area. PLA conditions typically include prevailing wages, no-strike clauses, dispute resolution procedures, and safety and training provisions. If used, the PLAs would require all contractors working on a project to adhere to collectively bargained terms and conditions of employment, whether the contractors are union or nonunion contractors. BOEM’s stipulation complements state initiatives for a trained offshore wind workforce, promotes the standardization of training and safety protocols and will contribute to the timely construction of offshore wind projects.

8. **Native American Tribes, Ocean User, and Stakeholder Engagement and Coordination**

Summary of Comments:

Four commenters provided feedback on engagement with Native American Tribes, ocean users and stakeholders. Commenters were generally supportive of BOEM’s intention to include a progress reporting requirement for lessee engagement activities; however, there

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were several recommendations on how to ensure that such a reporting requirement achieved its intended purpose. One commenter would like BOEM to mandate the creation and maintenance of a website by the leaseholder or their designee with a failure to be the responsibility of the leaseholder. The Nature Conservancy recommends BOEM consider opportunities to support a regional science collaborative in the Gulf of Mexico similar to the Regional Wildlife Science Collaborative for Offshore Wind (RWSC) as a pathway to foster collaborative engagement among lessees, federally recognized tribes, and other stakeholders responsible and rapid offshore energy transition to renewables.

Two commenters support the communication plans but note that the 120-day requirement is not sufficient to draft three comprehensive engagement plans, host meetings, respond to feedback on draft plans, and finalize the plans so that they serve the interests of stakeholders, Tribes/Tribal Nations, and agencies during project development. Communications plans are living documents that are periodically reviewed and updated; however, having more time to develop a robust initial version of each plan helps create a strong foundation for collaboration with all of the intended beneficiaries. RWE appreciates BOEM's willingness to work with leaseholders and allow for extensions, and recommends continuing that practice, but requests that BOEM extend the initial 120-day requirement to reduce burdens for stakeholders, Tribes/Tribal Nations, and Lessees and to support thoughtful plan development in the first instance.

A lessee commenter recommends that fisheries and agency communications plans be submitted within 180 days after lease execution and that Native American Tribes Communications Plans be submitted within one year after lease execution. This update would better reflect overall project timelines while still upholding a responsibility to maintain thoughtful, consistent communication with fisheries, Tribes and Tribal Nations, and government agencies. Updating this timeframe for submission also would better align with BOEM's new Renewable Energy Modernization Rule. Given that leaseholders are no longer required to submit a Site Assessment Plan (SAP) within one year of lease execution but are instead only required to submit a Construction and Operations Plan (COP) within five years of lease execution, extending timelines for communications plans would have no negative impact on overall engagement during the project's multi-year development period. Relatedly, RWE requests clarification on when Lessees are required to submit progress reports once the communications plans have been finalized since there has been confusion in other regions.

BOEM Response:

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

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In response to comments, BOEM is building upon a previously used lease stipulation to require a semi-annual progress report. Within the progress report, lessees will identify Tribes and parties potentially affected by proposed activities and provide updates on engagement activities. The report will document potential adverse effects from the lessee's project to the interests of Tribes and parties. The report will 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, alteration/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 will continue to explore options to build upon and improve its own engagement practices with affected Tribes and other parties.

9. Green Hydrogen

Summary of Comments:

Several comments were received on Green Hydrogen. Most commenters were concerned that the Environmental Assessment (EA) conducted in 2023 did not cover site assessment and characterization activities for hydrogen production. Instead, it was exclusively focused on the analysis of offshore wind. All uses of the lease must be rigorously reviewed under the National Environmental Policy Act (NEPA).

USFWS also requests that BOEM collaborate with us regarding potential hydrogen production as a new component of offshore wind facilities. Depending on the layout and design, additional build-out from hydrogen infrastructure may equate to greater impacts to migratory birds via the creation of additional perching sites, increased lighting, human and vessel traffic, and overall displacement of habitat.

GNOwind members are encouraged to see BOEM's revisions to the lease to explicitly include the production of hydrogen or other energy products using wind turbine generators on the lease.

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Although this is a great first step in reducing uncertainty for developers that may be considering these projects for GOM lease areas, it is also crucial for BOEM to explore what additional analysis and procedure may be required to implement the appropriate scheme and support mechanisms for these new projects. With H2-OSW projects offering immense potential to support decarbonization targets nationally, and community impact locally, planning should be prioritized appropriately. GNOwind members encourage BOEM to coordinate with the DOE, NREL, industry, environmental interests, potentially impacted communities, and local research institutions to explore the most prudent analysis and research required to inform planning for H2-OSW projects in the GOM.

BOEM Response:

Any proposed offshore site assessment and site characterization activities that are not addressed in the GOM Wind Lease EA, including those for the purpose of developing and producing hydrogen, will need to be reviewed as they are proposed on a case-by-case basis by BOEM. Additional environmental reviews and consultations may be necessary. Lessees should coordinate with BOEM's Gulf of Mexico Regional Office before developing any survey plan.

BOEM is committed to collaborating with the USFWS moving forward to better consider the potential environmental effects of coupled offshore wind and green hydrogen projects, including the co-development of mitigations (e.g., project design elements) designed to avoid or minimize impacts to migratory birds.

10. Auction Format

Summary of Comments:

Commenters were generally supportive of the auction format.

One commenter provided feedback regarding the maximum number of lease areas per bidder. The commenter addressed whether BOEM should limit the number of leases awarded to a bidder to one or allow winning bids in two or more areas. The commenter recommends that BOEM carry forward the same rules as the first Gulf of Mexico auction and limit each bidder to one lease area. The feedback given was that requiring one lease per bidder will ensure that leases sell for market value and extend competition into the development phase of the projects.

An industry group recommended that BOEM use an initial capacity factor of 30 percent to calculate the operating fee for leases in the GOM.

BOEM Response:

The proposed approach supports a competitive market for clean energy in the Gulf coast and

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presents opportunities for economies of scale. BOEM has often used a one-per-customer rule to increase competition among lessees for state clean energy offtake procurements. The rationale for allowing bidders to win multiple lease areas in GOMW-2 is supported by the absence of statutory or enforceable offshore wind targets in neighboring GOM states and the possibility that electricity will be sold through offtake agreements directly to industrial users. With four proposed lease areas, BOEM finds that this auction provision is most likely to facilitate expeditious and orderly development of OCS resources.

BOEM proposed a 30 percent initial capacity factor in the GOMW-2 PSN and agrees with the commenter that this rate is appropriate at this time. Using publicly available data from NREL, BOEM agrees that actual capacity factors in the GOM will likely be lower than in other wind energy areas. Typically, BOEM has set the initial capacity factor at 40 percent for lease sales outside of the GOM and finds that a lower capacity factor of 30 percent more closely approximates average GOM wind resources. As proposed, the first capacity factor adjustment occurs after the seventh year of commercial operations and is adjusted for the 8th payment using capacity factor data from lease years two through six.

11. Other Comments

11.1 Marine Mammals

Summary of Comments:

BOEM received three comments regarding impacts on marine mammals, including the Rice's Whale. One commenter is concerned with the potential future conflicts with the Rice's Whale's critical habitat in the GOM.

NMFS requests BOEM to include, as a lease stipulation, that BOEM and developers follow the guidelines provided in our Recommendations for Mapping Fish to ensure data sufficiency. We recommend BOEM include lease stipulations that would require baseline monitoring for protected species during the site characterization and site assessment phase. Continuous archival Passive Acoustic Monitoring (PAM) and acoustic telemetry monitoring should be conducted in the proposed lease areas to collect baseline information on the presence, distribution, and seasonality of protected species, other marine mammals, and acoustically tagged species (e.g., highly migratory species, sturgeon, sea turtles). Additionally, both archival and real-time PAM should be used to collect baseline information on the presence, distribution, and seasonality of marine mammals along anticipated transit routes. Archival PAM should also be used to establish baseline noise levels in the proposed lease areas and surrounding waters. A coordinated regional PAM approach should be taken following the recommendations of Van Paris et al. 2021 and the Regional Wildlife Science Collective (RWSC) Science Plan, which suggests a minimum of 3 to 5 years of monitoring using continuous PAM archival recorders immediately prior to construction.

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NWF urges BOEM to adopt the “mitigation hierarchy” within the FSN to clarify expectations that lessees first avoid, then minimize and mitigate, potential environmental impacts from all stages of offshore wind development and note that the monitoring stipulations will be a critical part of informing the implementation of this hierarchy. It is important that BOEM and the consulting agencies including USFWS and NMFS update analyses such as Environmental Assessments and associated Endangered Species Act Consultations to incorporate new data. Applying the NMFS and USFWS consultations over the span of 10 years will potentially overlook new scientific data and evolving understanding of wildlife interactions with offshore wind activities without regular review.

BOEM Response:

The proposed critical habitat and the core distribution area for Rice's whale were considered and avoided in the siting of the potential lease areas.

Under BOEM’s regulations, a plan (SAP, COP, or GAP) must describe biological, social, and economic resources that could be affected by the activities proposed in the SAP, COP, or GAP (see SAP – 30 CFR 585.610(b)(5), 585.611(a),(b)(3), (5) and (7); COP – 30 CFR 585.626(a)(3), 585.627(a)(3), (5), and (7); and GAP – 30 CFR 585.645(a)(5), 585.646(b)(3)-(5). This includes a description of protected species. If and when a plan is submitted to BOEM for the actual construction, operation, and decommissioning of a wind farm, BOEM will conduct environmental analyses and consultations in accordance with applicable statutes to examine potential impacts to protected species. Based on the outcome of these analyses and consultations, conditions of COP approval may be included that require monitoring before, during and after construction.

As required under the ESA, reinitiation of consultation is required and shall be requested by BOEM if and when new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered in the existing programmatic consultation; the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not previously considered in this consultation; or if a new species is listed or critical habitat designated that may be affected by the action. Additional NEPA analyses would likewise be required if new information or circumstances relevant to environmental concerns and bearing on the proposed action or its impacts would result in significant environmental impacts not previously evaluated. BOEM will adhere to existing NEPA regulations and consult CEQ guidance when conducting NEPA analyses, including guidance on mitigation.

11.2 **Birds**

Summary of Comments:

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Four commenters have concerns about bird and bat mortality. The first commenter is concerned with introducing hundreds of wind turbines across 410,060 acres of ecologically-sensitive ocean is reckless and directly contradicts the Biden administration's recent position when leasing federal land in the Gulf of Mexico for oil and gas development. There is also great concern about the hundreds of bird species that migrate south through the Central and Mississippi Migratory Bird Flyways. Studies estimate that over a million birds are killed by wind turbines in the United States each year. BOEM's proposal to erect a gauntlet of wind turbines for the estimated two billion birds to migrate through each year risks dramatically increasing that number.

Another commenter recommends collaboration between developers and USFWS Division of Migratory Birds to deploy on-site surveillance equipment that enhances understanding of spatio-temporal activity patterns of birds and bats in wind energy lease areas at each stage of development. This includes cutting edge audio-visual equipment and Motus tracking antennas. Funding from conservation-related bid credits could be a tool to help address this information need.

USFWS encourages BOEM to collaborate with USFWS, state wildlife agencies, and researchers to gather acoustic and movement data for bats in both offshore and coastal environments in the Gulf to assess risks more accurately to migratory bats from offshore wind turbine operations.

NWF would like the FSN require lessees to adopt the measures detailed below to monitor, avoid, and minimize bird and bat collisions. There is significant concern for collision impacts during turbine operation as well as during site assessment and characterization activities. There is a need for much greater understanding of bat distributions in the lease areas, greater understanding of the risk of turbine strikes and bird and bat mortality, and identification of species most at risk. Nevertheless, our current understanding of offshore wind-avian interactions and avian at-sea distribution along the Gulf of Mexico OCS is sufficient to predict that potential impacts are likely to occur, and therefore it is important to integrate monitoring and protections for birds and bats into the FSN.

BOEM Response:

Before BOEM will approve the siting of a facility, structure, or cable proposed for a renewable energy project on the Outer Continental Shelf (OCS), an applicant must submit with its Construction and Operations Plan (COP) the results of its site characterization surveys and supporting data to BOEM. This includes surveys and/or supporting data regarding bird and bats.

BOEM will use the data from these surveys to evaluate the impact of construction, installation, and operation of meteorological towers, buoys, cables, wind turbines, and

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supporting structures on biological resources, including seabirds. The information will be used by BOEM, other Federal agencies, and potentially affected states in the preparation of NEPA documents, for consultations, and other regulatory requirements. The lessee may include some mitigative and monitoring measures for bird and bat resources in their COP. Through consultation with the FWS and other State and Federal partners during the environmental review of a COP, BOEM may identify additional, site-specific monitoring and mitigative measures to reduce or eliminate potential effects to birds and bats. BOEM is also conducting environmental studies on habitat use of seabirds in the Gulf of Mexico in relation to potential offshore wind development. The results of these studies will also inform the COP-stage consultations and mitigation development. BOEM encourages FWS to continue partnering with the Bureau and sharing environmental information and concerns. BOEM is open to collaborating on mitigation strategies.

BOEM seeks to partner with other entities, including Federal, State, and academic researchers studying avian and bat habitat use in the Gulf of Mexico. BOEM currently has three ongoing environmental studies focused on bird and bat movements in the Gulf of Mexico and how their habitat use may overlap with offshore wind development. FWS is involved in all of these projects. The results of these studies will also inform the COP-stage consultations and mitigation development. BOEM encourages FWS to continue partnering with the Bureau and sharing environmental information and concerns.

11.3 Fisheries

Summary of Comments:

Two commenters commented about fisheries. One commenter stated that the impact of wind turbines on fish species and local fishing communities as a whole are deeply troubling. BOEM itself was a co-participant in a study released just last month detailing numerous impacts that offshore wind power projects have on fish and marine mammals, including noise, vibration, electromagnetic fields, and heat transfer that could damage the marine environment. U.S. Department of Commerce concedes that the construction and operation of wind turbines: (1) displace fishermen from traditional fishing areas; (2) changes the distribution, abundance, and species composition of fish in an area; (3) causes economic loss to commercial, recreational, and tribal fishing; and (4) reduces safety at sea.

The other commenter provided a recommendation to avoid artificial reefs by a 1 nautical mile buffer. These artificial reef sites are developed through the state's Artificial Reef Program administered by the Texas Parks and Wildlife Department (TPWD). These efforts represent a large investment by state, federal, and private partners, and contain sensitive structural habitats that support unique fish and invertebrate communities, including corals, as well as recreational opportunities.

TPWD continues to have concern for the potential inability to access and utilize the Lease

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Areas for other uses (e.g., artificial reef site development, transit, fishing, recreation, monitoring, research, etc.) once they are leased. If artificial reef site development is restricted within Lease Areas, TPWD is concerned that large contiguous Lease Areas (>5 square miles) may prevent new artificial reef site development opportunities within proximity to the Houston-Galveston metropolitan area. TPWD also has concerns for potential access restrictions for recreational and commercial activities such as fishing, diving, boating, transit, as well as resource management monitoring programs and scientific surveys.

BOEM Response:

Before BOEM will approve the siting of a facility, structure, or cable proposed for a renewable energy project on the Outer Continental Shelf (OCS), an applicant must submit with its Construction and Operations Plan (COP) the results of its site characterization surveys and supporting data to BOEM. This includes surveys and/or supporting data regarding benthic habitats, protected species, and bird and bats. BOEM will use the data from these surveys to evaluate the impact of construction, installation, and operation of meteorological towers, buoys, cables, wind turbines, and supporting structures on biological resources. The information will be used by BOEM, other Federal agencies, and potentially affected states in the preparation of NEPA documents, for consultations, and other regulatory requirements. The lessee may include some mitigative and monitoring measures for species and their habitats in their COP. Through consultation with the FWS, National Marine Fisheries Service, and other State and Federal partners during the environmental review of a COP, BOEM may identify additional, site-specific monitoring and mitigative measures to reduce or eliminate potential effects to biological resources. BOEM is also conducting environmental studies in the Gulf of Mexico in relation to potential offshore wind development. The results of these studies will inform the COP-stage consultations and mitigation development. COP-stage NEPA analyses will also assess potential socioeconomic and navigational and safety effects to commercial and recreational fishing industries, existing research programs, and recreational activities (e.g., scuba diving). These analyses will inform mitigative measures (e.g., facility design components and/or compensatory mitigation) needed to avoid or reduce associated impacts. Although gear loss claims are prioritized for fisheries compensatory mitigation funding, funds can also be used to support updates to navigational equipment used on fishing vessels to increase safety at sea. BOEM is currently collaborating with the NOAA's Southeast Regional Office and the Southeast Fisheries Science Center to develop a joint strategy and program aimed at mitigating impacts to NOAA's federal survey program (both fisheries-independent and protected species surveys). This collaboration is working to ensure that NOAA's federal survey program continues to collect the information necessary to conserve protected species and support federal stock assessments (i.e., data that support the understanding of any changes to the distribution, abundance, and species composition of fish) used to inform fisheries regulations in federal waters.

BOEM's Gulf of Mexico Region also collaborated extensively with NOAA's National Centers for Coastal Ocean Science in the co-development of a spatial suitability model used to site and deconflict areas offered for offshore wind development. This effort was largely successful at avoiding areas highly utilized by commercial fishers and involved many individual meetings between BOEM and representatives of fishing industry to ensure their feedback was incorporated

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into the siting model. Please see BOEM and NOAA's WEA Modelling Report (<https://www.boem.gov/renewable-energy/state-activities/gom-wea-modeling-report-1>) for more details on the data used to inform offshore wind siting in the GOM. While a 1 nm buffer for artificial reefs was not explicitly included in the model, the proposed lease areas are all distanced further than 1 nm from any Texas artificial reef sites.