



Pacific Fishery Management Council

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July 1, 2024

Mr. Doug Boren, Pacific Regional Director
Bureau of Ocean Energy Management
760 Paseo Camarillo, Suite 102
Camarillo, CA 93010

Re: Bureau of Ocean Energy Management's *Pacific Wind Lease Sale 2 (PACW-2) for Commercial Leasing for Wind Power on the Oregon Outer Continental Shelf — Proposed Sale Notice*

Dear Mr. Boren:

The Pacific Fishery Management Council (Council) appreciates the opportunity to comment on the Bureau of Ocean Energy Management's (BOEM) Pacific Wind Lease Sale 2 (PACW-2) for Commercial Leasing for Wind Power on the Oregon Outer Continental Shelf — Proposed Sale Notice (PSN). The Council offers the following comments which address concerns surrounding impacts to commercial and recreational fishing activities, fishing-dependent coastal communities, and vital marine habitats and species of the California Current Ecosystem (CCE). We provide some general comments followed by responses to some but not all of the specific questions posed in the PSN.

First, however, we wish to make clear that serious concerns about the process remain. One concern is that the process continues to move too quickly. It has outpaced the information needed for responsible decision-making, leaving the decision-making process so far under-informed at best. The community benefit agreement (CBA) concept included in the PSN provides one example. They may hold promise. At the same time, they are something the Council would take considerable time to develop, with at least a three-meeting process for considering alternatives, analysis, and public input. More fundamentally, there is concern that the focus on CBAs signals a shift in emphasis to compensating for fisheries losses instead of where it properly belongs—on avoiding and minimizing them. The right to fishing, and interpreting BOEM's mandates so as not to affect it, is embedded in the Outer Continental Shelf Lands Act's Congressional declaration of policy (43 U.S.C. § 1332(2)).

In addition, the sequence of decision-making and environmental impact analysis under BOEM's process remains of highest concern. The public does not have a detailed analysis on what developing these areas would mean for the marine ecosystem or fisheries. We understand the reasons for this and know that BOEM plans a more detailed analysis for later stages. However, when a more detailed analysis is conducted it may show that the impacts are unacceptable or that other areas also would be desirable and suitable for wind energy development and yet have lower impact to fisheries and the environment. The BOEM process should not foreclose that possibility.

The utilization of a spatial suitability model developed by National Oceanic and Atmospheric Administration's (NOAA) National Centers for Coastal Ocean Science (NCCOS) helped identify areas with less conflict within the boundaries of the Call Areas offshore Oregon but failed to take a holistic approach to determining if areas with even less conflicts existed outside those original Call Areas.

We continue to believe that a programmatic, region-wide, marine spatial planning approach would be preferable for a public process. BOEM recently published a Notice of Intent to Prepare a Programmatic Environmental Impact Statement for Future Floating Wind Energy Development Related to 2023 Leased Areas Offshore California. In response to the Notice of Intent, the Council reiterated our recommendation for a West Coast wide programmatic analysis of cumulative effects.¹ That said, the time to use this approach is prior to lease sales, and ideally prior to establishment of Wind Energy Areas (WEAs). That is the time when use of this approach can most meaningfully result in avoidance or minimization of impacts to fishing communities, habitats and marine resources. Again, the Council continues to recommend that the agency take a more comprehensive, marine spatial planning type approach to best support its decision-making and the public's involvement in it.

Given the above, and the uncertainty surrounding the future of offshore wind (OSW) projects, the Council recommends not publishing the Final Sale Notice until such time that further certainty is available. Based on this uncertainty, there is a very real concern that any auction held before the first week of November would result in fewer prospective bidders and lower bids. The most recent OSW auction conducted by BOEM, in the Gulf of Mexico, result in only one lease sale in the amount of \$5.6 Million.² Two other WEAs were not bid upon. The minimum bids established in the present PSN, \$6.689 Million for the Brookings WEA and \$3.060 Million for the Coos Bay WEA, would not represent a fair return for those lease areas given their importance to the fishing industry and the likely fishing-related revenues which could be generated over the 38-year lease term. Additionally, the proposed CBAs would fail to meet their stated purpose and goals with lower lease sale values. In the alternative, the Council recommends the proposed minimum bid of \$50/acre be significantly increased given the results from the California lease sales. The leases offered off California were auctioned off at a range of \$1,624/acre to \$2,518/acre – significantly more than the \$50/acre proposed minimum bid contained in the PSN.

Council Authorities and Responsibilities

Essential Fish Habitat and Council Authorities

The Magnuson-Stevens Conservation and Management Act (MSA) requires the Council to describe, identify, conserve, and enhance essential fish habitat (EFH) for species managed under the Council's fishery management plans (FMPs). The MSA defines EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity."³ The MSA includes additional provisions to designate Habitat Areas of Particular Concern (HAPC), which

¹ <https://www.pcouncil.org/documents/2024/02/february-2024-letter-to-boem-re-the-notice-of-intent-to-prepare-a-programmatic-environmental-impact-statement-to-analyze-impacts-of-floating-offshore-wind-energy-development-on-the-five-leased-areas.pdf/>

² https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/GOMW-1-Round-by-Round-Results_0.pdf

³ 16 U.S.C. §1802(10)

are specific types or areas of habitat within EFH.⁴ The MSA further authorizes the Council to comment on Federal actions or state activities that may affect the habitat, including EFH, of a marine or anadromous fishery resource under its authority. Adverse effects on EFH may result from actions occurring within or outside EFH and may include site-specific or EFH-wide impacts, including individual, cumulative, or synergistic consequences of actions.

EFH is identified throughout the Pacific Coast region for species managed under each of the Council's FMPs: Pacific Coast groundfish, coastal pelagic species, Pacific Coast salmon, and highly migratory species. HAPCs have been identified for groundfish (rocky reefs, estuaries, canopy kelp, seagrasses, offshore banks, seamounts, canyons, and other areas of interest) and for salmon (estuaries, marine and estuarine submerged aquatic vegetation, and other freshwater habitat features). In addition, Essential Fish Habitat Conservation Areas (EFHCA) are designated for groundfish species in the Council's Groundfish FMP. EFHCAs are spatially discrete areas designated to protect sensitive habitats from the effects of some types of bottom fishing.

Fishing, Coastal Communities, and MSA National Standards

The MSA includes ten National Standards (NS) that are principles to be followed in any FMP to ensure sustainable and responsible fishery management. The National Marine Fisheries Service (NMFS) has developed regulatory guidance for the ten NS (50 CFR Part 600 Subpart D). With those standards in mind, the Council **recommends** that any analysis of the effects of OSW energy development activities consider four NS with particular relevance to the siting, design, and configuration of OSW lease areas:

- The effects of the proposed action on the ability of fisheries to continue to achieve optimum yield from managed wild fish stocks (NS1 - 50 CFR § 600.310).
- The effects of the proposed action on scientific information which informs conservation and management measures. Scientific information specifically includes “data compiled directly from surveys or sampling programs, and models that are mathematical representations of reality constructed with primary data.” (NS2 – 50 CFR § 600.315).
- The effects of the proposed action on the sustained availability of fishery resources to fishing communities near any proposed lease sale areas, and on the sustained participation of those fishing communities in fisheries, including minimizing adverse economic impacts to fishing communities (NS8E - 50 CFR § 600.345).
- The effects of the proposed action on fishing vessel safety of navigation and safety of human life at sea (NS10 - 50 CFR § 600.355).

Our comments below are focused on potential impacts to habitats and the CCE, and impacts to commercial and recreational fishing activities, fishing-dependent coastal communities, and associated industries such as transportation, seafood trade, and recreation. We offer the following comments specific to one of the questions contained in the PSN.

⁴ HAPCs are identified based on one or more of the following considerations: (i) The importance of the ecological function provided by the habitat; (ii) The extent to which the habitat is sensitive to human-induced environmental degradation; (iii) Whether, and to what extent, development activities are, or will be, stressing the habitat type; (iv) The rarity of the habitat type. (50 CFR 600.815(a)(8)).

Existing Uses and how they may be affected by the development of the proposed Lease Areas

Commercial and recreational fisheries, and those businesses dependent upon those industries, will be significantly impacted. The Council has submitted extensive comments, including technical and scientific data, during the Oregon OSW planning process detailing potential impacts to fishing communities and habitats.⁵ Those are incorporated by reference. The potential impacts to fishing communities from the two WEAs cannot be viewed in isolation. California has a long-term planning goal which includes another 20GW of OSW off the California coast. The California Energy Commission, in the Draft of its Strategic Plan for offshore wind energy developments installed off the California coast in federal waters, identified sea space it has deemed suitable for future OSW development. The majority of these areas are between Cape Mendocino and the California/Oregon border. The Council remains concerned about the cumulative impacts of ALL potential developments along the west coast and the impacts of those to the marine ecosystem, fishing communities, habitats and living marine resources.

The Council is extremely concerned about impacts of commercial and recreational fishing as well as fishing-dependent coastal communities, for lease sites in both WEAs and beyond. OSW development within the WEAs means that access to fishing areas will be precluded, transit will be impacted, and research activities will be impacted. NOAA fisheries surveys and research activities are critical to sustainable fisheries management and ecosystem protections. The Council therefore **recommends** that BOEM establish, or require Lessees to establish, corridors of sufficient size to accommodate fishing vessel and research vessel transit and research activities.

Areas Proposed for Leasing

Future Restrictions to Protect Sensitive Habitats

Both lease areas overlap important benthic habitats for species important to our commercial and recreational fisheries. This includes habitats that are present in low abundance, limited distribution, or are sensitive to long-term or permanent damage. The Council, along with resource agencies and Tribes, have identified numerous areas of sensitive habitat in both the Coos Bay WEA and Brookings WEA, as well as outside the WEAs as it relates to cable routing, based on the limited and coarse habitat information available at this time. Sensitive habitats include all hard bottom habitats (canyons, bedrock, boulder, cobble, carbonate rock), deep-sea coral and sponge habitats, methane seep bubble streams with or without associated methanogenic communities, mud volcano, as well as all EFH designations (EFHCAs and HAPCs). The Council, State and Federal resource agencies, and others have requested that aliquots overlapping sensitive habitat resources be excluded entirely from OSW development and associated activities, that sufficiently sized

⁵ March 2024 comment on BOEM's Notice of Intent to Prepare an Environmental Assessment for Commercial Wind Leasing and Site Assessment Activities on the U.S. Outer Continental Shelf Offshore Oregon (<https://www.pcouncil.org/documents/2024/03/march-2024-letter-to-boem-on-notice-of-intent-environmental-assessment-for-commercial-wind-leasing-off-oregon.pdf/>); November 2023 comment on Draft Wind Energy Areas - Commercial Leasing for Wind Power Development on the Oregon Outer Continental Shelf (OCS) (<https://www.pcouncil.org/documents/2023/11/november-2023-letter-to-boem-governor-kotek-on-pfmc-comments-on-draft-wind-energy-areas.pdf/>); April 2023 letter to Governor Kotek and BOEM regarding Oregon's Offshore Wind Energy Development Process (<https://www.pcouncil.org/documents/2023/11/november-2023-letter-to-boem-governor-kotek-on-pfmc-comments-on-draft-wind-energy-areas.pdf/>); and June 2022 comment on BOEM's Request for Information and Nominations:

Commercial Leasing for Wind Energy Development on the Outer Continental Shelf Offshore Oregon (<https://www.pcouncil.org/documents/2022/06/june-2022-letter-to-boem-on-oregon-call-areas.pdf/>)

protective buffers be established around sensitive habitats if aliquot removal is not applicable, and that cable corridors also avoid these habitats. This applies to sensitive habitats not currently mapped but that would be identified in new mapping efforts. BOEM has indicated in this PSN Notice that sensitive habitats may be excluded from leasing:

“Potential bidders are advised that portions of the Lease Areas may not be available for future development (i.e., installation of wind energy facilities) because of sensitive seafloor habitats.”

Previous comments by the Council also recommended that BOEM require lessees to conduct (and share) high-resolution seafloor mapping and produce fine-scale habitat classification maps for identifying sensitive habitats not previously mapped, and to do so prior to conducting any bottom-contact site assessment or site characterization activities, including anchoring. BOEM indicates in the PSN that lessees will be required to provide additional data and evaluation to identify sensitive seafloor habitats:

“BOEM will require further data gathering and evaluation of seafloor habitats and expects to place restrictions on disturbance of sensitive seafloor habitats during COP review.”

The Council’s previous comments are incorporated herein by reference as most are equally relevant to this PSN. Of particular relevance: (1) if aliquots overlapping sensitive habitats are not removed from leasing then establish sufficiently-sized buffers around all sensitive habitats (i.e., sensitive habitats currently mapped plus habitats identified during new mapping), (2) concerns and recommendations for site assessment and characterization activities, (3) need fine-scale habitat classification maps of WEAs and possible cable routes using the existing high-resolution multibeam data to (a) inform potential bidders of areas that may be restricted due to the presence of sensitive habitats, and (b) to guide/prioritize lessee’s subsequent high-resolution seafloor mapping which will further refine existing maps of sensitive habitat. (4) New high-resolution mapping and substrate classification map development should be done prior to bottom-contact site assessment/characterization activities (geological and geophysical surveys, and biological surveys) to ensure sensitive habitats are sufficiently protected from bottom-contact activities and equipment, including anchoring.

The Council’s letters to BOEM on [draft Oregon WEAs](#) and on the draft EA for Commercial Wind Lease Issuance off Oregon (includes site assessment and site characterization) include additional details and recommendations, and are incorporated by reference.

Regarding the two draft commercial lease documents (OCS-P Lease 0566 and OCS-P Lease 0567), Addendum C in both lease documents contains lease-specific terms and conditions. The Council notes that Section 5.2.2 of Addendum C requires Lessees to “consult further” if activities are not within the scope of the activities described in the initial Endangered Species Act or Marine Mammal Protection Act consultation. However, no such stipulation is required for impacts and activities related to EFH. We **recommend** that Addendum C should require the Lessee to adhere to any EFH conservation recommendations and consult with NMFS if any survey activities or design differ from the scope described in the initial EFH consultation. The Council also **recommends** that Section 2.1 (*Site Characterization: Survey Plan*) and Section 5.3 (*Stipulations: Geological and Geophysical Survey Requirements*) be revised to include the Council’s

recommendations on the EA for leasing. In particular, the Council **recommends** as lease conditions:

- Require lessees to adhere to prescribed buffers around all areas of sensitive habitats, as recommended by state/Federal resource agencies.
- Require lessees to conduct benthic habitat mapping at the highest resolution possible.
- Require lessees to adhere to guidance and standards provided in the *NMFS Greater Atlantic Fisheries Recommendations for Mapping Fish Habitat* (transmitted to BOEM March 29, 2021) for habitat mapping, seafloor classification and biogenic habitats.
- Require Lessees to consult with West Coast habitat scientists to further delineate and classify habitat features relevant to the West Coast.
- Require Lessees to provide the frequency, duration, survey line spacing, density/amount of cores, etc., of site assessment/characterization methods anticipated, over the duration of the lease, analyzing the quantified effects of those activities on habitat resources.
- Require lessees to analyze the cumulative effects of multiple survey activities that are likely to overlap spatially on sensitive habitats in the final EA.

Wind Wake Effects and Upwelling

The Council remains concerned with wind wake effects from OSW farms reducing upwelling in the proposed lease areas. Wind-driven coastal upwelling is a primary driver of productivity in the CCE. Disruption of upwelling could also exacerbate deepwater hypoxia since upwelling (and downwelling) processes are a major driver of oxygen renewal conditions in coastal environments. Wake effects can also impact temperature, salinity, and stratification. The WEAs may be particularly susceptible to changes in oceanographic processes because they are located within the oxygen minimum zone of the upper slope of the continental shelf (600-1200 meters), a unique area where oxygen concentrations are naturally and consistently low. Periodically, these low oxygen waters move onto the shelf and contribute to widespread hypoxic events.

Recent modeling efforts show about a five percent reduction in wind speeds found in the lee of wind farms, which leads to an approximately 10 to 15 percent decrease in upwelled volume transport and resulting nutrient supply to the coastal zone in the vicinity of the Morro Bay WEA and Diablo Canyon Call Area off the coast of California (Integral Consulting 2021). Model simulations for wind farms in the southern North Sea demonstrate large-scale attenuation in the wind forcing and associated alterations in the local hydro- and thermodynamics (Christiansen et al. 2022). Other recent analyses indicate that turbine arrays can create wind deficits downwind of the arrays up to 100 kilometers and may affect ocean dynamics and ecosystem function in surrounding areas (Akhtar et al. 2021, Lloret et al. 2022).

Understanding wind deficit effects on ecosystem processes in this region will be important to BOEM's decision on whether to permit OSW off the West Coast, as well as the placement and configuration of lease sale areas. Results from these and future studies should be used to inform the location of lease sales to minimize the impacts to upwelling, ocean stratification, and prevailing currents in the California Current. We consider the potential impact of wind wakes on the productivity of the California Current to be a foundational issue which should be completely understood before OSW development activities occur. The Council **recommends** that BOEM stipulate as part of the lease sale that the Lessee's Construction and Operation Plan includes an

analysis of wind wake effects and identifies lease areas and site designs that generate the least amount of wake effect on upwelling or other oceanographic processes.

Bidding Credits

BOEM proposes to grant bidding credits to establish a community benefit agreement (CBA) with a community or stakeholder group whose use of the geographic space of the Lease Area, or whose use of resources harvested from that geographic space, is directly impacted by the Lessee's potential offshore wind development.

The Council has serious concerns about the potential impacts of OSW development on fishing-dependent communities. These impacts may result in the permanent loss of fisheries, processing plants, jobs, and related enterprises. We are cautiously supportive of CBAs as vehicles, if sufficiently funded and implemented, to provide support to coastal communities or stakeholder groups that would be impacted by OSW development. Fishing-dependent communities stand to suffer significantly more than most other coastal community sectors, and the Council is encouraged by BOEM's recognition of the potentially severe impacts that fishing communities will endure, on an indefinite basis. CBAs should extend and be guaranteed for the lifetime of the project and possibly beyond. CBAs should be required as a condition of the lease and should remain in place if a lease or OSW facility is transferred or sold to a different entity.

The PSN proposes a bidding credit of 5 percent for bidders who have an “*existing CBA or a commitment to enter into a new CBA with a community or stakeholder group...*”. The CBA would be designed, in part ‘*particularly to assist fishing and related industries to manage transitions, gear changes, or other similar impacts which may arise from the development of the Lease Area.*’ We support the inclusion of ‘related industries’ as being directly affected by OSW activities, and we consider processing plants, transportation, retail businesses, as well as out-of-area fishing participants that are at least partially dependent on fish resources in the area, to be related industries directly affected by OSW development.

The Council included specific recommendations on CBAs in our comment letter on the PSN for the lease sales off California.⁶ We incorporate those recommendations here.

Lease terms and conditions

Commercial Fisheries: The Council supports the proposed lease stipulation to require development of a Fisheries Communications Plan (FCP), including the requirement that a Lessee contact potentially affected commercial fishing communities prior to submitting its Construction and Operations Plan. We **recommend** including in any FCP a requirement to work collaboratively with local fishing industry representatives to identify optimum transmission and interarray cable routes. We also **recommend** the FCP require Lessees to engage with representatives from affected fishing industry sectors to schedule site assessment and/or site characterization activities during times when fisheries utilizing the proposed lease areas are not being prosecuted to minimize potential impacts. BOEM should consider having NMFS or BOEM help produce standard administrative guidelines and provide an appeal or arbitration mechanism if needed.

⁶ See - <https://www.pcouncil.org/documents/2022/08/august-2022-letter-to-boem-on-pacific-wind-lease-sale-1.pdf/>

Commercial and recreational fishing will be amongst existing uses and resources with the highest potential to be affected by offshore wind energy development activities in the WEAs. Oregon's recreational fishing industry is economically and culturally important to coastal communities. The proposed lease stipulation states only that Lessees shall work with "commercial fishing communities" prior to submitting COP proposals to "ensure that, whenever feasible, survey and development activities are compatible with seasonal fishing operations." The Council **recommends** that BOEM place the recreational fishing community on equal footing with the commercial fishing industry in lease stipulations, as appropriate, and every other point in this process where fishery impacts are in issue.

The Council appreciates the opportunity to provide comment on the PSN for California Lease Areas. If you have any questions, please contact Kerry Griffin on Council staff (Kerry.griffin@noaa.gov; 503-820-2409).



Pacific Council Chair

KFG:ael

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References

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