STATE OF MAINE
GOVERNOR'S ENERGY OFFICE
62 STATE HOUSE STATION
AUGUSTA, MAINE

DAN BURGESS, DIRECTOR

June 12, 2023

Mr. Zachary Jylkka
Office of Renewable Energy Programs
Electronically Submitted via Federal Register Portal
45600 Woodland Road, VAM-OREP
Sterling, Virginia 20166

Re: Docket No. BOEM–2023–0025 - State of Maine Comments on BOEM's Call for Information and Nominations - Commercial Leasing for Wind Energy Development on the Gulf of Maine Outer Continental Shelf

Dear Mr. Jylkka,

In February 2023, Maine released the Maine Offshore Wind Roadmap[1], a comprehensive plan to responsibly advance offshore wind. The Roadmap, developed over 18 months with engagement and input from stakeholders and the public, outlines how offshore wind presents a significant opportunity for Maine to reduce its reliance on expensive, imported fossil fuels, create good-paying jobs and economic investment, stabilize energy costs, advance floating offshore wind innovation by the University of Maine, and make progress toward our statutory emissions reductions and clean energy targets.

As part of our responsible approach to offshore wind, the Governor's Energy Office (GEO) has pursued an inclusive, collaborative, and research-driven strategy to realize the benefits presented by offshore wind while also preserving Maine's vibrant maritime heritage, fishing industry, and the ecosystem of the Gulf of Maine. This approach, coordinated across State agencies, is outlined in the key strategies of the Roadmap and central to the state's advancement of the Maine Offshore Wind Research Array, which is an important step to increase our understanding of how to maximize floating offshore wind opportunities while minimizing impacts.

As the Bureau of Ocean Energy Management (BOEM) continues its planning and permitting work in advance of commercial leasing in the Gulf of Maine, we strongly encourage you to consider Maine's approach as a model of meaningful, long-term stakeholder engagement during multiple phases of planning and development and across many federal agencies. We believe this approach will help advance reliable, cost-effective floating offshore wind in the Gulf of Maine that responsibly co-exists with ocean users, the fishing industry, and the marine environment.

We underscore our October 2022 comments[2] to the Request for Information (RFI) phase, which align with the Maine Offshore Roadmap, and are summarized as follows:

[1] https://www.maineoffshorewind.org/roadmap/
[2] https://www.regulations.gov/comment/BOEM-2022-0040-0037

- Offshore wind is important to Maine's and New England's long-term energy future.
- Offshore wind presents a significant economic opportunity for Maine that could reach communities throughout the state and improve the state's economic resilience.
- Protecting areas of greatest importance to fishing activity, other ocean users, and the Gulf of Maine ecosystem is essential to responsible offshore wind development.
- Continued, meaningful engagement with ocean users and stakeholders is critical and BOEM should consider a variety of traditional and innovative ways to engage with important stakeholders, especially the fishing industry.
- Maine supports multi-factor bidding and BOEM lease stipulations that prioritize creating family-supporting jobs, economic development, and meaningful stakeholder engagement.
- The State intends to continue expanding regional coordination and collaboration on multiple topics to minimize impacts and maximize benefits of offshore wind in the Gulf of Maine.

In response to BOEM's Call[3], the State offers the following comments for consideration. The comments are guided by the Maine Offshore Wind Roadmap, data from the Roadmap Mapping Project and State agencies, and ongoing stakeholder engagement.

Responsible Advancement of Offshore Wind

As an abundant source of renewable energy, offshore wind has the potential to contribute to reducing Maine's over-reliance on fossil fuels, to stabilize energy costs, and to curb climate-altering emissions to protect our state's environment for future generations. As an industry, offshore wind is poised to grow significantly in the coming years. This growth will support existing and emerging Maine companies, create new jobs and career opportunities for Maine people, attract new workers and families to Maine, and deliver infrastructure investments in communities across the state. Through the development of the Roadmap, we worked with fishermen, scientists, and others to address head-on important questions about how offshore wind can be compatible with the Gulf of Maine's remarkable ecosystem and existing users, which provides an informed path for advancing offshore wind in manners that protect people, communities, and the environment. The Roadmap also provides an outline on how to lead on responsible development of offshore wind that delivers on its vast potential to secure our energy independence, fight climate change, and strengthen Maine's economy.

This past winter Maine people experienced unprecedented energy price increases driven by unstable global energy markets and our over-reliance on fossil fuels to power our economy. International events, most notably Russia's invasion of Ukraine, triggered major disruptions in global energy markets, which resulted in expensive and volatile energy prices. Maine, with nearly 60 percent of homes reliant on heating oil, and a regional electricity grid over-reliant on natural gas for electricity generation, is distinctly vulnerable to global energy market forces.

With some of the highest sustained winds in the world, offshore wind in the Gulf of Maine can diversify and strengthen Maine's sources of clean energy and meet the state's statutory climate and clean energy targets: using 80 percent renewable energy by 2030 with an intention of 100 percent

[3] https://www.federalregister.gov/documents/2023/04/26/2023-08670/commercial-leasing-for-wind-power-development-on-the-gulf-of-maine-outer-continental-shelf-ocs-call

by 2040, cutting emissions by 45 percent by 2030 and 80 percent by 2050, achieving carbon neutrality as a state by 2045, and doubling our clean energy jobs to 30,000 by 2030.

Given increasing energy demands, which is predicted to double by 2050, Maine must plan for long-term energy needs by ensuring a diverse renewable portfolio that ensures electricity supply can meet demand. According to analyses[4] conducted for the Maine Offshore Wind Roadmap assessing the cost-effectiveness and feasibility of various renewable scenarios, Maine will need 3 GW of offshore wind by 2050 to meet climate and clean energy requirements. These analyses show that as offshore wind technology matures and is deployed at a commercial scale, its costs are projected to decline significantly—ultimately dropping well below comparable costs of fossil fuel-generated electricity.

In contrast to other renewable energy technologies, offshore wind also offers much higher energy potential at night and during winter months, when regional demand for heating peaks, because the strongest and most consistent offshore winds occur in winter.

Costs and ratepayer impacts are priority considerations for Maine and are reflected in the Roadmap. The State supports cost-effective development of commercial floating offshore wind in the Gulf of Maine that helps stabilize electricity prices during high demand periods, like winter. Maine is pursuing the floating offshore wind research array in federal waters to help reduce costs of maturing floating offshore wind technology and reduce potential impacts to ocean users and the environment.

Maine supports the advancement of multiple Wind Energy Areas of sufficient size to support competitive, cost-effective floating commercial development that meets Maine's climate and clean energy needs and goals.

Throughout the Roadmap and BOEM planning process, Maine has strongly advocated for protecting Maine's fishing industry, including prioritizing commercial offshore wind activity in areas outside of areas identified as important lobster and other fishing areas of effort. Given the importance and economic value contributed by Maine's seafood sector, in recognition of the Fisheries Working Group recommendation, and given the limited experience with floating technology, Maine advocates that BOEM should avoid siting offshore wind leases within areas of high fishing activity throughout the Gulf of Maine, and particularly to avoid siting within LMA 1 in this lease sale.

As described in Maine's comments on the RFI, Maine's fishing footprint represents a transition from inshore areas dominated by lobstering activity, to offshore areas with more groundfish and herring activity. LMA 1 is densely populated with lobster gear from Maine's 1260 federally permitted fishermen, as well as hundreds more from Massachusetts and New Hampshire. As described within

[4] https://www.maine.gov/energy/sites/maine.gov.energy/files/inline-files/Maine%20OSW%20DNV%20Wind%20Energy%20Needs%20Assessment%20Final%20Report.pdf

this letter, siting offshore wind outside LMA 1 will avoid conflict with more than 99% of Maine's lobster industry, as well as significant effort by the groundfish, monkfish, scallop, tuna, and herring fisheries. Designation of Wind Energy Areas (WEAs) outside of LMA 1 at this time will ensure that Maine's marine economic interests are protected. As detailed in Maine's comments on the RFI, there is substantial fishing activity throughout the Gulf of Maine, and Maine encourages BOEM to review those previous comments for specific details on Maine's diverse commercial fisheries. Siting offshore wind outside of LMA 1 avoids conflict with important fisheries and allows for consideration of anticipated new information.

While we do not support commercial scale offshore wind in LMA1, we are supportive of the proposed location of the Maine Research Array within LMA1, which is an important step to gain insight into how to best maximize co-existence with Maine fishing activity and identify other tools to avoid and minimize impacts to the ecosystem. The state went through an extensive stakeholder and data analysis process to weigh multiple factors including fishing activity, navigation, wildlife, and costs before identifying a preferred site, which is one of the farthest offshore sub-commercial projects in the world. The preferred site minimizes impacts on existing uses and sensitive habitat, while allowing relevant co-existence and impact monitoring and analysis based on anticipated variables likely to be found in commercial siting locations. We recognize the importance of interconnecting offshore wind into Maine from an energy and reliability perspective. Maine will work proactively to identify optimal routes, investments, and processes for projects sited outside of LMA1 to interconnect into Maine and utilize Maine ports and other infrastructure.

Advance the Maine Research Array

While the State recognizes the BOEM review process for the research lease application is happening in parallel to the commercial leasing process, the State's intent for the research array is to inform responsible advancement of any future commercial offshore wind projects, which could include work related to engagement and communications, monitoring, surveys, and construction and operations plans. Once constructed, it is expected that Maine's proposed research array will fill critical data gaps regarding the potential impacts to important fisheries on which Maine's coastal economy heavily depends and improve understanding of how fishing operations may co-exist with offshore wind development. Maine emphasizes the importance of advancing the research array in a timely manner to inform future commercial projects.

Need for proactive engagement with existing ocean users, tribes, and stakeholders

We appreciate the concerted effort to meet with Gulf of Maine stakeholders, the fishing industry, and tribal governments in advance of and after the issuance of the Call. While this engagement was a critical first step, it is important that engagement continue with substantive information, including modeling information, in advance of the identification of final WEAs.

Maine strongly encourages that BOEM seek additional information from fishermen about how best to deconflict the siting process as early as possible and use this input to inform the development of the draft WEAs rather than being sought later in the process. Accordingly, we urge BOEM to hold in-person meetings in coastal communities as soon as possible. A minimum of four in-person meetings,

in towns along the coast, would provide a reasonable level of access for fishermen who often must travel extensive distances up Maine's peninsulas after working long days on the water.

Share information on BOEM and NOAA National Centers for Coastal Ocean Science (NCCOS) suitability modeling

Maine supports the use of ecosystem-based spatial models to help inform offshore wind planning in the Gulf of Maine, as long as sufficient, high-quality data on the Gulf of Maine are underpinning these models, the model assumptions and weighting processes are clearly articulated, States are engaged to inform the approaches, Gulf of Maine experts are consulted to review the findings, and BOEM clearly shares how these models are used in the decision-making process at various phases of the commercial offshore wind leasing process. Maine encourages BOEM to provide more information around the Gulf of Maine suitability model being developed by NCCOS. Specifically, BOEM needs to ensure that the appropriate information around existing data gaps, such as detailed bathymetry, habitat characterization and associated marine resources, within the Gulf of Maine is being considered by NCCOS, and there needs to be more transparency on the model's development and weighting of layers within each sub-model. As noted in the Greater Atlantic Regional Fisheries Office comment on the draft call area, there are substantial data gaps within the Gulf of Maine, and states must be consulted for any model to accurately characterize the fisheries that overlap with the call area. The sensitivity of these variables and how they are weighted in the modeling process is currently not well understood, and NCCOS and BOEM should communicate to states how any data provided is being used within the model.

To inform suitability modeling for areas between the Call Area and the coastline for transmission, Maine recommends BOEM and NOAA NCCOS consider the high-resolution seafloor data available through the Maine Coastal Program's Mapping Initiative at Maine DMR. Additional high resolution seafloor data of areas between the Call Area and the Maine coastline are needed to fill gaps in existing seafloor data sets.

Proactive coordination with other federal agencies

Maine encourages continued proactive coordination with federal agencies, including the Department of Defense and the U.S. Coast Guard (USCG) to inform the current siting discussion for commercial offshore wind leasing, which may have a material impact on suitable locations for offshore wind leasing. The state recognizes the USCG is undergoing a separate process through the Gulf of Maine Port Access Route Study, for which the state submitted comments. The state strongly supports safe navigation in the Gulf of Maine and encourages BOEM and the USCG to work together and with the states to allow for offshore wind leasing where appropriate while also ensuring safe navigation.

Additional Information

I. COMMERCIAL FISHING

The Gulf of Maine Call area encompasses numerous areas important to commercial and recreational fisheries, which support communities throughout Maine. In 2022, Maine's commercial harvesters earned $574,049,682, with lobster accounting for $388,589,931. This ex-vessel revenue supports a much broader seafood sector in the state. A recently published economic impact analysis funded by the Economic Development Administration found that Maine's seafood sector is the source of $3.2 billion in total economic output. The sector supports 33,300 jobs, with 12,900 jobs directly in harvesting; with multiplier impact employment, it is Maine's largest natural resource industry. In the Downeast region, which is heavily dependent on the marine economy, the seafood sector directly supports 45% of all jobs in the region.[5]

Lobster

As Maine has previously described, the dominant commercial fishery in the state is lobster, and the spatial footprint of this fishery is underrepresented in both state and federal data as compared to other fisheries. Lobster fishing activity decreases with distance from shore and most landings come from state waters (Figure 1). However, it is important to note that even federal data, both spatial and landings data, characterizing the lobster fishery is highly deficient. Data included in NOAA Fisheries' RFI comments includes lobster landings and revenue information by state and port based on Vessel Trip Report (VTR data); the majority of federal lobster permit holders are not required to report VTRs to NOAA, so this data is also substantially incomplete. However, it is important to emphasize that nearly all of Maine's lobster landings come from harvesters who are only permitted to fish in LMA1 or state waters, so effectively, Maine's total lobster landings come exclusively from inside LMA1.

At this time, Maine believes that the most representative spatial information for the lobster fishery is provided by the Decision Support Tool (DST) used to inform development of the recent Atlantic Large Whale Take Reduction Plan rule issued in 2021. NOAA Fisheries' Northeast Fisheries Science Center created the DST for use by the Atlantic Large Whale Take Reduction Team to help team members evaluate risk to North Atlantic Right Whales (NARW) from entanglement in fishing gear and to understand how various management actions impact risk in different locations within the Northeast. Maine has identified several significant deficiencies with the DST throughout the Take Reduction Team process but at present, this tool provides the best spatial representation of the lobster fishery available. Inputs for the Maine LMA 1 fishery within the DST were constructed from state and federal trip reports, which include details on ME lobster fishing zone (A-G) and distance from shore (< three miles, 3-12 miles, and 12+ miles). A representative depth for each trip included in the DST data is also used and together, these data streams attempt to define the spatial allocation and effort of the fishery. While flawed, the model runs illustrate that most of the effort by the lobster fishery is within LMA 1 (Figure 2).

[5] The Economic Impacts of the Maine Seafood Sector, January 2023. Available online at https://www.seamaine.org/reports-presentations/ .

While data related to the lobster fishery is currently deficient, Maine recently implemented a new regulatory requirement for 100% lobster harvester reporting, which will align the Maine lobster fishery's data with that of lobster fishing from other states in the region. Additionally, beginning January 1, 2024, all federally permitted lobster vessels will be required to have vessel trackers on board. These changes will result in substantially more data soon being available regarding the footprint of the lobster fishery both within and outside of LMA 1, and this information will be valuable to further inform offshore wind siting. Limiting offshore wind development to outside LMA 1 allows the fishery time to adjust and adapt to these changes as well as analysis of new data and deeper understanding of the extent of the fishery's spatial footprint.

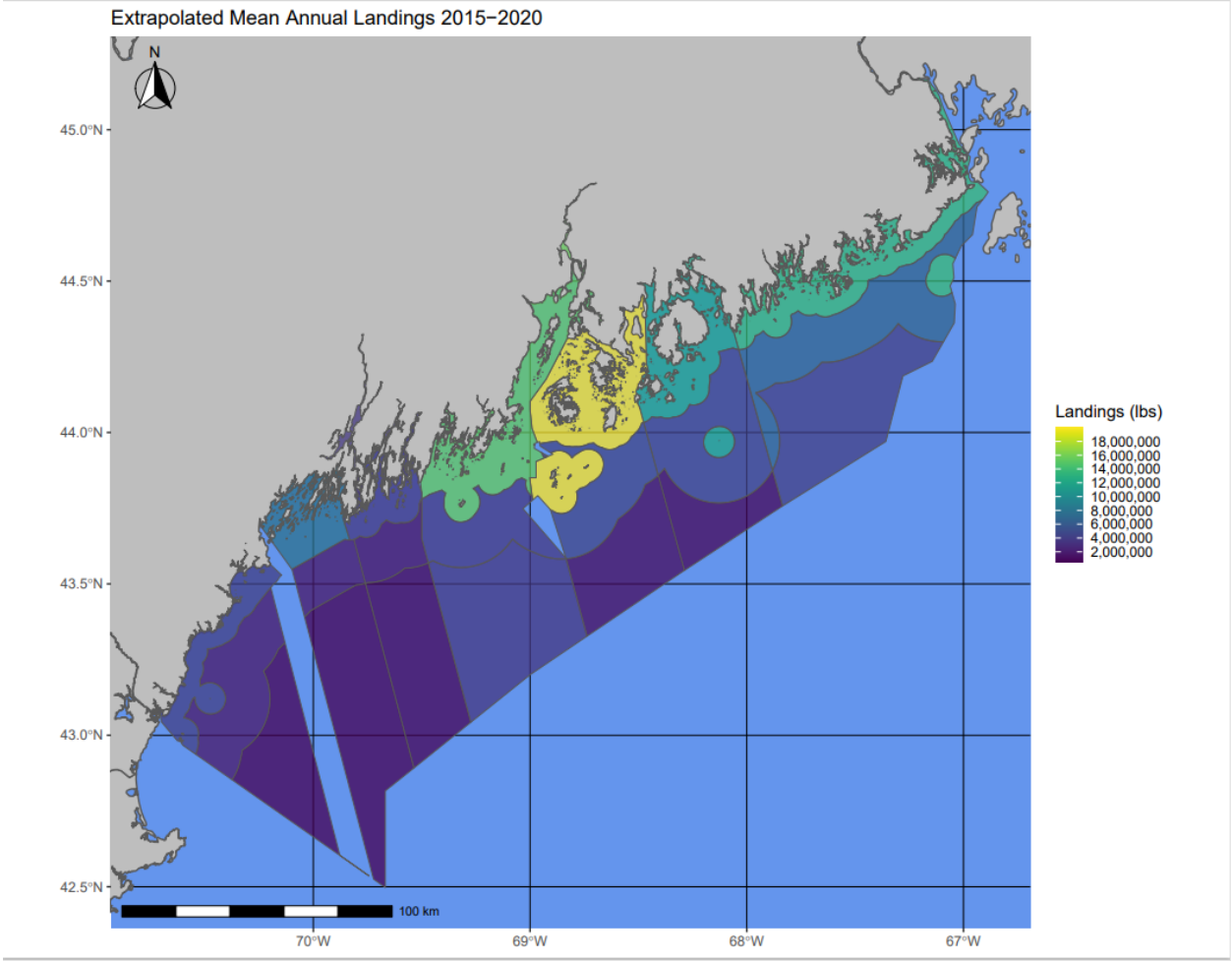

Figure 1: Lobster zone and distance from shore. Extrapolated mean landings from 2015-2022 showing Maine lobster zone and distance from shore.

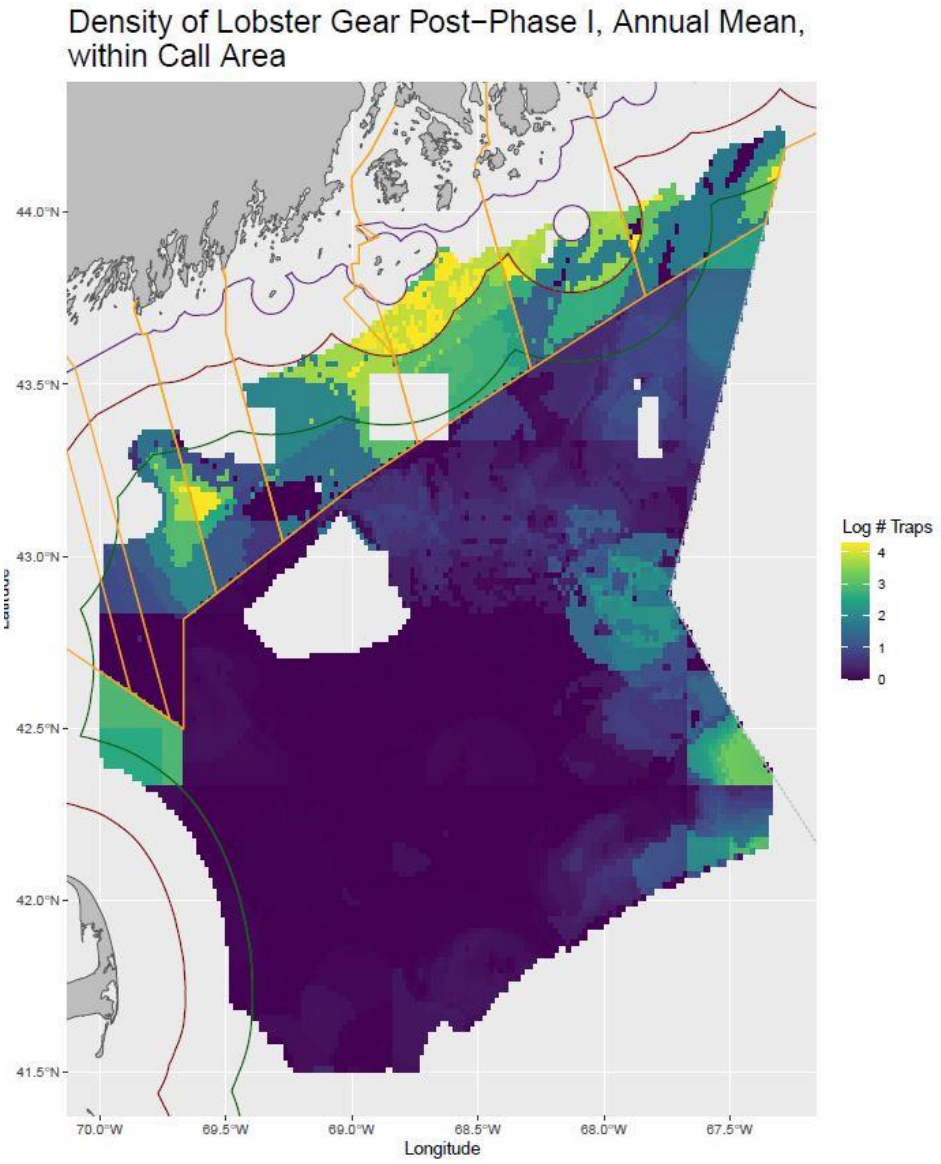

Figure 2: Maine lobster zones and BOEM call area shown with Decision Support Tool lobster effort model. Lobster effort shown in log scale.

Groundfish, herring, monkfish, scallop

Other important commercial fisheries occurring within the call area include groundfish, herring, monkfish, and scallop, and transition to higher intensity where lobster activity decreases. As is evident from the available Vessel Monitoring System (VMS) data for groundfish and other species, there is high and very high fishing activity throughout the Gulf of Maine, and in and around Platts Bank, Wilkinson Basin, Cashes Ledge, as well as Jordan Basin and northern edge of Georges Bank. Over the decade from 2013-2022, Maine homeported vessels caught very high percentages of their overall Gulf of Maine catch inside of LMA 1 (approximated by Statistical Areas 511, 512, 513, and 514); 43% of their groundfish, 99% of their herring, 54% of their monkfish, and 100% of their

scallops.[6] Siting WEAs outside of this area will avoid significant fishing effort by the non-lobster Maine fleet, as well as areas of overlap between the Maine fleet and effort by other state groundfish fleets. Avoiding LMA 1 preserves access to several important historical groundfish tows in the mid-coast region, which are not as well represented in VMS maps due to less fishing activity in this region in recent years. Avoiding LMA 1 also preserves mobile gear access for groundfish tows across Mistaken Ground, Platts Bank and south into Wilkinson basin, as well as important fixed gear bottom on Platts Bank for the groundfish and monkfish gillnet fleet.

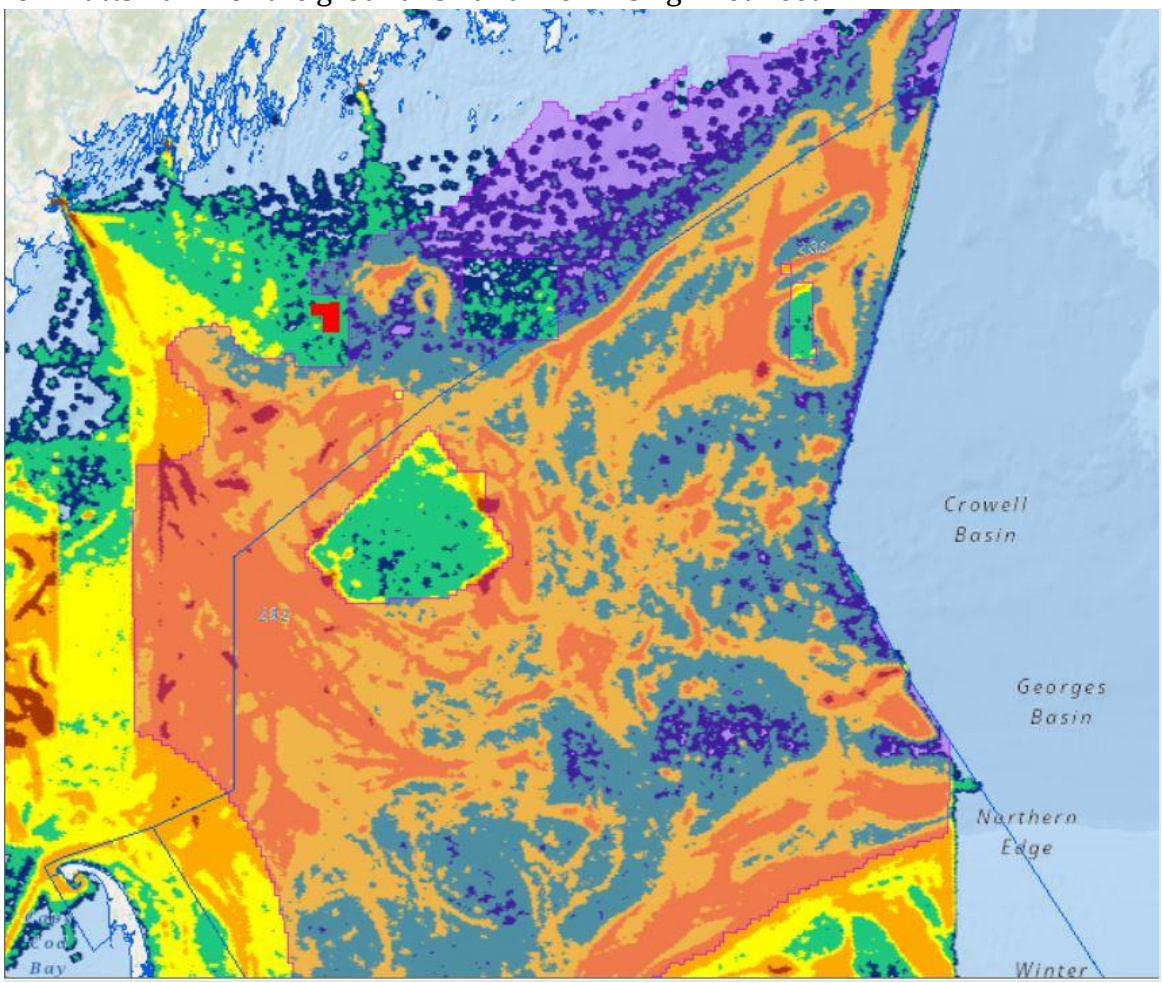

Figure 3: VMS activity for multispecies within the Gulf of Maine between May 2015- April 2019. Gulf of Maine call area shaded in red, and Lobster Management Area lines in blue.

Highly Migratory Species

6 Based on landings data received from GARFO showing % vessels homeported in Maine, and landings info for groundfish, herring, monkfish, and scallop from 2013-2022 for statistical areas 511, 512, 513, 514, 515, 464, and 465.

Since Maine provided comments on the draft call area, information regarding spatial distribution effort for highly migratory species (HMS) has become available. To better understand HMS fishing within the draft Gulf of Maine call area, the Maine Department of Marine Resources conducted an online survey where HMS fishermen were asked to describe their fishing activity in the Gulf of Maine between 1980-2021, with more details requested for the most recent years of fishing (2010-2021). Results from 187 responses show that activity decreased from west to east, with greatest activity reported in areas within LMA 1 including, Mistaken Grounds, Platts Bank, and east of Jeffrey's Ledge[7].

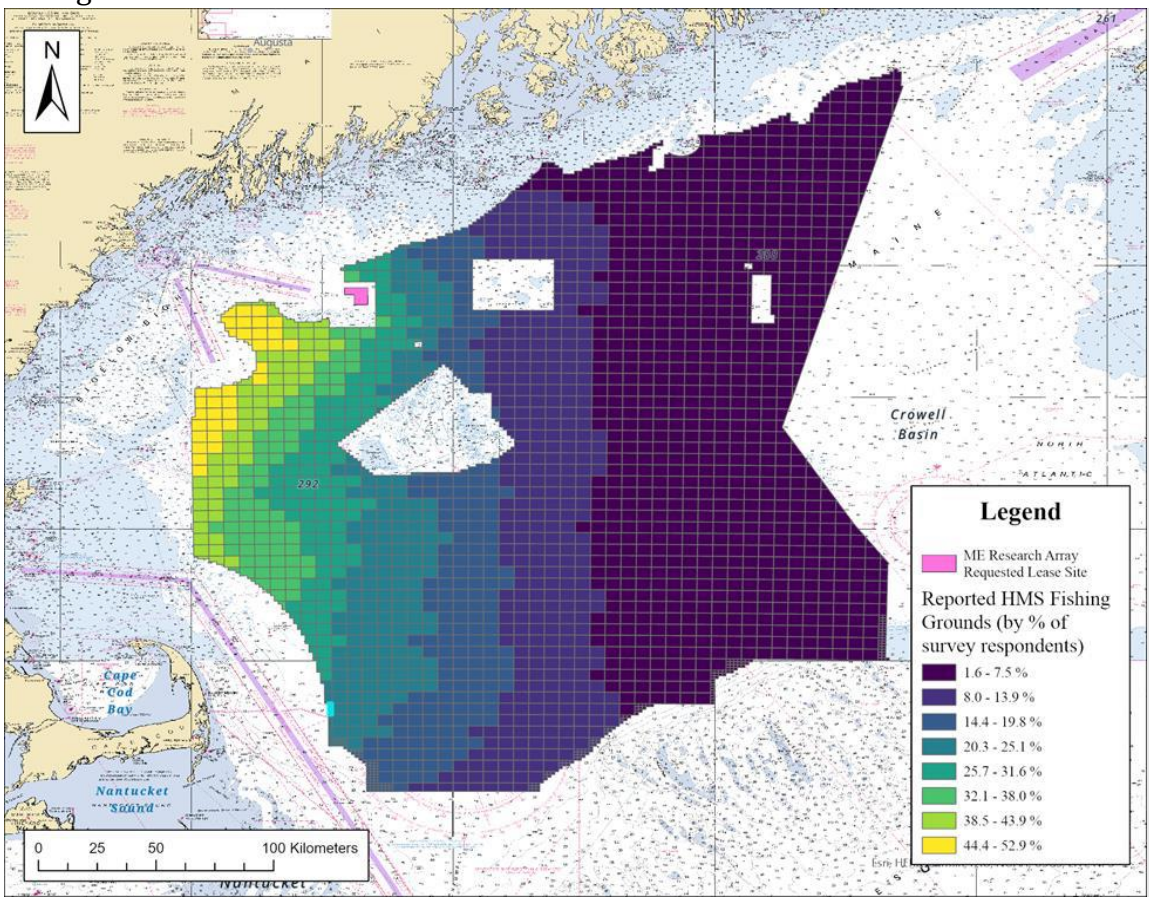

Figure 4: Spatial distribution of HMS fishing grounds within the draft Gulf of Maine call area.

Complex Bottom and Areas of Note

Complex bottom

Within LMA1 and the call area there are several unique habitat features or areas of complex bottom that form one of the bases for Maine's recommendation that LMA 1 be removed from consideration. Maine described many of these areas in comments on the RFI, and within the siting information for the proposed ME Research Array, and BOEM is encouraged to review those documents for additional details[8]. Specific areas of note within LMA 1 include the Outer Schoodic Ridges, Jones

7 https://www.maine.gov/dmr/sites/maine.gov.dmr/files/inline-files/Report%20to%20the%20Gulf%20of%20Maine%20Mapping%20Project%20for%20Highly%20Migratory%20Species%20-%20Final%20Draft_2.pdf

8 Marine Resources Summary of Industry Engagement and Siting Information for Proposed Offshore Wind Research Array

Ground, Bank Comfort, Clay Bank, Skate Bank, Twelve Mile Ridge, Outerfalls, Jeffreys Bank and Toothaker Ridge, all of which are intensively used for either lobster or groundfish fishing. As described by NOAA Fisheries in their comments on the RFI, many of these areas support high value fisheries as well as protected species and sensitive habitat, and several areas overlapping with LMA 1, such as Wilkinson Basin, allow for aggregations of plankton that serve as important food sources for protected species and several fish species with designated essential fish habitat in the area. These areas of important complex habitat and at depths used heavily for lobster fishing are so extensive in LMA 1 that excluding areas based on benthic habitat or depth strata to adequately protect these existing uses will likely result in the exclusion of the majority of LMA 1.

Platts Bank

Another area of complex bottom that is both of significant importance and within LMA 1 is Platts Bank. During the Maine research array siting process, Platts Bank was identified as providing critical ecosystem services for important resources and the associated fisheries. This shallow area located approximately 35 miles off the coast of Portland, Maine is relatively flat-topped with a shallow depth range of less than 27 fathoms (165 ft, 50 m) to a broader expanse of 36-47 fathoms (220-280 ft, 67-85 m). The 140m depth contour has been used to define the extent of this feature. This feature and the surrounding area to the northwest and north toward Mistaken Ground serves as important commercial and recreational fishing grounds and is an important connecting area between Mistaken Ground to the north and to deeper portions of the Gulf of Maine, particularly Wilkinson Basin. Significant fishing occurs on and around Platts Bank including commercial fisheries (mobile and fixed gears) for groundfish, monkfish, scallop, lobster, and others. The area is also frequented by numerous marine mammals and avian wildlife. Given the unique habitat features and overlapping uses of this area, it is important to preserve this area for the existing uses.

Atlantic Large Whale Take Reduction Seasonal Closure

As BOEM is aware, within the call area is the Atlantic Large Whale Take Reduction Plan seasonal closure known as the 'LMA 1 Restricted Area'. This area, located offshore within LMA 1, encompasses portions of Maine's lobster zones C, D, and E, and is closed to persistent buoy lines from October 1st through January 31st. As described in the 2021 final rule for changes to the Atlantic Large Whale Take Reduction Plan, NOAA Fisheries' rationale for creating this closure was based on recent and historical sightings for NARW, other large whale sightings, acoustic monitoring, and prey distribution. Offshore wind development in this area would cause additional displacement to lobster fishermen who are restricted from shifting all their gear to other areas due to the existing management structure. Increased gear density and crowding is likely to lead to increased gear conflict within the fishery and with other fisheries, including mobile gear fleets. By prohibiting offshore wind development within LMA 1 at this stage, conflict and further displacement issues with Maine's lobster industry in this area are largely avoided.

Given that floating offshore wind is such new technology, Maine encourages BOEM to conduct additional monitoring prior to and during construction and operations to inform future risk

assessment. As requested by NOAA Fisheries in comments on the Request for Information, continuous archival passive acoustic monitoring and acoustic and telemetry studies should be conducted in the Gulf of Maine prior to offshore wind leasing to collect information on presence, distribution, and seasonality of NARW and other marine mammals. In the coming years, Maine's Department of Marine Resources will be deploying additional acoustic equipment and increasing monitoring for NARW within the Gulf of Maine to inform future Take Reduction Team actions. Although intended for another purpose, this information may also be used to inform future commercial siting.

Wilkinson Basin

Within LMA 1 and into Lobster Management Area 3, there are a few areas that are dominated by high and very high non-lobster fishing activity. Wilkinson basin is encompassed by Stellwagen Bank, Jeffrey's Basin, and Fippennies Ledge, and is generally considered to be contained within the 200m contour line. This area in particular sees very high groundfish activity, especially along the outside of the Western Gulf of Maine closure area and then extending further into Wilkinson basin and south along the Cashes Ledge closed area. As described above, there are important and historical groundfish tows that begin near Mistaken Ground, move around and over Platts Bank, and continue down into Wilkinson Basin. Generally, there are seasonal movements of fish stocks between fishing grounds, and traditionally, these migratory corridors were closely followed by fishing activity. The current sector management program and quota allocation has disrupted some of the ecological and fishing activity. Wilkinson basin and the area immediately outside of the Western Gulf of Maine closure sees intense fishing activity from the Maine-homeported fleet, including as well as from other states. Siting offshore wind outside of LMA 1 would avoid conflict with some, but not all of the very high and high fishing activity in these areas.

Siting considerations for offshore wind in areas of high fishing activity

The call area around Wilkinson Basin also shares borders with two important Habitat and Groundfish Management Areas: The Western Gulf of Maine Closure and the Cashes Ledge Closure. Maine recommends BOEM avoid siting WEAs within areas of high and very high fishing activity, which is often concentrated near the edges of closed areas. If offshore wind is to be sited within areas of high fishing, it is recommended that dedicated fishing corridors be designated and incorporated into the process at the draft WEA stage so that states and fishing industry representatives have an opportunity to comment on their adequacy as early as possible in the process. Regardless, BOEM should create draft WEAs that are divided up and organized in such a way that fishing corridors are dedicated from the beginning. Such an approach ensures vessels have appropriate space to maneuver and safely navigate between floating turbines and array cabling while also preserving access from the beginning for important commercial fisheries. Thoughtfully setting aside dedicated space for fishing during the draft WEA identification phase ensures adequate co-use of space and takes the approach of avoiding and minimizing impact to existing ocean users. Coordination with the fishing industry should occur to determine the appropriate direction and width of the final fishing corridors. This would ensure these corridors achieve maximum benefit to allow important and historical fishing tows continue, as well as allow ease of navigation and access for existing commercial fishermen and other ocean users.

II. INFORMATION FROM MAINE OFFSHORE WIND ROADMAP'S MAPPING PROJECT

As part of the Maine Offshore Wind Roadmap, the GEO hosted several workshops to fulfill two Roadmap working groups' recommendations to improve existing mapping data on fisheries, wildlife, and the Gulf of Maine ecosystem available for offshore wind planning (siting). The GEO, Maine Department of Marine Resources (DMR), and Maine Department of Inland Fish and Wildlife (MDIFW) partnered with the Northeast Regional Ocean Council (NROC), the organization that operates the Northeast Ocean Data Portal, which provides high quality mapping information to deconflict ocean uses, to conduct the workshops and develop new or improved data products informed by 45 fisheries and environmental experts – including fishermen - in the Gulf of Maine. The group identified a priority list of improved spatial data products needed for responsible offshore wind siting in the Gulf of Maine.[9][10] NROC drafted and iterated the products with the group and developed a map book showing high abundance areas for marine mammals, birds, and forage fish, well-documented with assumptions and caveats for appropriate use. Concurrently, DMR used the priority list to develop improved map products and clear documentation on fishing intensity for commercial fisheries. These products are informing the following comments to help ensure responsible offshore wind in the Gulf of Maine. The experts engaged in the mapping project also identified the need for new spatial data collection to improve levels of certainty for cetaceans, birds, demersal and forage fish and stony corals.

Platts Bank

According to public data available on the Northeast Ocean Data Portal and subject matter expert reviews conducted through the stakeholder-based Maine mapping project, Platts Bank is a critical high abundance area for many types of marine life, including cetaceans (North Atlantic Right Whale, fin, sei, and humpback whales) in October-December, seabirds (northeast resident species and species that use this area for breeding), forage fish in spring and fall, and habitat suitable for deep sea stony corals. As noted above, Platts Bank is also essential for the fishing industry. Maine supports defining Platts Bank with the 140 m isobath, consistent with the definition BOEM proposed for Georges Bank in the Call announcement and removing Platts Bank from the Call Area to protect fisheries and marine life.

Northern Edge of Georges Bank

According to public data available on the Northeast Ocean Data Portal and subject matter expert reviews conducted through the stakeholder-based Maine mapping project, the northern edge of Georges Bank is a critical, high abundance area for many types of marine life, including cetaceans (North Atlantic Right Whale, fin, sei, and humpback whales) – October, January, February, marine

9 Maine Offshore Wind Roadmap's Mapping Project, High Abundance Areas Mapbook, https://www.maine.gov/energy/sites/maine.gov.energy/files/inline-files/Gulf%20of%20Maine%20Call%20Area%20High%20Abundance%20Maps.pdf

10 Maine Offshore Wind Roadmap's Mapping Project – Summary Memo of Fisheries, Wildlife and Environment Data in the Gulf of Maine, https://www.maine.gov/energy/sites/maine.gov.energy/files/inline-files/Memo%20-%20Maine%20Fisheries%20and%20Wildlife%20Data%20in%20the%20Gulf%20of%20Maine.pdf

birds (species that use the Northeast for feeding and surface-feeding seabirds), demersal fish species, and habitat suitable for deep sea stony corals.

According to public data available on the Northeast Ocean Data Portal and subject matter expert reviews conducted through the stakeholder-based Maine mapping project, the northern edge of Georges Bank is a critical, high abundance area for many types of marine life, including cetaceans (North Atlantic Right Whale, fin, sei, and humpback whales), marine birds (species that use the Northeast for feeding and surface-feeding seabirds), demersal fish species, and habitat suitable for deep sea stony corals. Specific to marine birds, MDIFW-funded analyses[11] of NOAA's Marine-life Data and Analysis Team (MDAT) modeling of foraging ranges and population sizes for 15 marine bird species, including eiders, auks, gulls, terns, storm-petrels, and cormorants, indicates the potential for high risk from offshore wind development in this region, based on three categories of vulnerability that were used to weight the MDAT models including population vulnerability, collision vulnerability, and displacement vulnerability. To our knowledge, these analyses represent the best available scientific knowledge for potential risk to marine seabirds in this area.

Based on these initial analyses, Maine supports BOEM's definition of Georges Bank and supports the 10-km exclusion buffer area beyond the 140m isobath for additional protection of this important habitat north of Georges Bank. It should be noted, however, that this modeling effort indicates potential high risk to multiple species of marine seabirds well beyond the 10-km buffer. Maine encourages BOEM to conduct comprehensive baseline surveys in this area prior to offshore wind development. The need for baseline surveys is further outlined in Recommendation (a)3 of the Final Recommendations of The Environmental and Wildlife Working Group[12] and Objective E, Strategy 1 of the Maine Offshore Wind Roadmap.

Great South Channel

According to public data available on the Northeast Ocean Data Portal and subject matter expert reviews conducted through the stakeholder-based Maine mapping project, the Great South Channel is a critical high abundance area for many types of marine life, including cetaceans (North Atlantic Right Whale, fin, sei, and humpback whales) – January and February, seabird species that use the Northeast for feeding, demersal fish species in fall, and forage fish species in spring. Additionally, the Maine Mapping Project participants identified nearshore areas and Cashes Ledge as important high abundance areas. BOEM has already excluded these from the Call Area.

Nearshore Coastline and Islands

Excluding LMA1 from leasing will protect important areas of the Maine coastline including seabird nesting islands and non-contiguous land masses. If LMA1 is not excluded, the state supports extending the coastal buffer to align with data regarding breeding and foraging activity of nesting and migratory birds. It is well established that Maine's coastal islands within LMA1 have historically provided important breeding, roosting, migration, and staging habitats for multiple species of birds, some of which are unique to Maine and the intercontinental United States. For example, Maine is the only state to support nesting State-Threatened Atlantic Puffins and Razorbills, and these islands

[11] Biodiversity Research Institute. An assessment of high-risk regions for seabirds in the Gulf of Maine draft call area. Prepared for the Maine Department of Inland Fisheries and Wildlife. April 2023.

[12] Environmental and Wildlife Working Group Final Recommendations. Submitted to the Maine Offshore Wind Roadmap Advisory Committee. July 2022.

support all the State-Threatened Arctic Terns breeding in the lower 48 states (USFWS, 2023). State-Endangered Roseate Tern also utilize this area for breeding and foraging.

Moreover, the concentration of migratory birds along the Downeast coastal islands is greater than in other areas of Maine and the seasonal and daily movement patterns are unique for represented guilds, creating a very complex dynamic. In and around the Gulf of Maine, over 300 species of birds have been documented during migration. The Gulf of Maine is an especially important region for millions of migrants during both spring and fall migration and serves as a nexus for many boreal breeding bird species whose migration routes intersect over the Gulf of Maine (Drury and Keith 1962, Hicklin 1987, Humphrey et al 1995, Leppold and Mulvihill 2011, Richardson 1978 and 1979). Of these migrant species, 100 birds are listed in Maine's 2015 State Wildlife Action Plan as species of Special Concern or Species of Greatest Conservation Need (SGCN). Finally, Maine Audubon 2022 seabird tracking research on Common Terns, Arctic Terns, Atlantic Puffins, and Leach's Storm-petrels (State Special Concern) supports the importance of this region for daily foraging movements out to sea, further elevating the necessity of protecting this priority ecosystem.

III. ADDITIONAL INFORMATION FROM THE MAINE OFFSHORE WIND ROADMAP

The State of Maine is committed to advancing a responsible offshore wind industry. Maine worked with stakeholders over two years to collaboratively develop a data-driven Offshore Wind Roadmap that identifies objectives, strategies, and actions to advance a responsible offshore wind industry that benefits Maine and the region. The comprehensive roadmap and associated working group recommendations[13] included many important topics with a few of the most relevant to the Call as follows:

Transmission

The Maine Offshore Wind Roadmap recognizes that, as Maine and the region advance offshore wind, the transmission infrastructure necessary to efficiently deliver power generated offshore to end users onshore is key to the success of future projects. Furthermore, the region is well positioned to proactively plan for optimal transmission siting and configuration for future projects that avoid individual radial cables for all projects. Regional and federal coordination is key to ensuring such transmission configurations are available at the appropriate time and with sufficient capabilities to enable the desired outcomes.

Maine has already participated in promising regional efforts to coordinate the development of transmission infrastructure. In 2022, Maine joined the four other coastal New England states, with the support of Vermont, to initiate the New England States Transmission Initiative by issuing a joint Request for Information seeking comment on an initiative to integrate offshore wind and other resources in a cost-effective, reliable and efficient manner. The Request for Information outlined a conceptual framework for a modular offshore wind integration plan and sought comments on both

13 https://www.maineoffshorewind.org/working-group-recommendations/

this plan and other infrastructure upgrades that will anticipate and meet consumer needs at least cost. More than forty entities responded to the RFI.[14]

Subsequent to this process, Maine joined Massachusetts, Connecticut, and Rhode Island, with the support of New Hampshire and Vermont, in submitting a concept paper titled "Joint State Innovation Partnership for Offshore Wind" to the U.S. Department of Energy's Grid Innovation Program. The Joint State Innovation Partnership for Offshore Wind concept paper proposes a collaborative effort between the New England states, transmission providers, and wind developers, working closely with the New England grid operator (ISO-NE), to proactively plan, identify, and select an initial portfolio of one or more high voltage direct current (HVDC) transmission lines and associated onshore system upgrades to unlock the region's significant offshore wind potential, improve grid reliability and resiliency, facilitate innovative regional cost allocation models, reduce innovative technology risk, and advance diversity, equity, and inclusion while investing in job growth and quality. The participants stated the intent to explore a solicitation process that seeks a modular development structure to facilitate the initial deployment of offshore HVDC systems in the near term while enabling upscaling of the system to accommodate a first-in-the-nation networked or "meshed" multi-terminal HVDC system as that technology becomes available.

A preliminary transmission analysis conducted as part of the Maine Offshore Wind Roadmap evaluated the injection capability of nearshore and interior high voltage substations in Maine for potential interconnection of offshore and onshore renewable resources. The objective of the analysis was to illustrate the relative capability of various near-shore high voltage substations for the interconnection of renewable resources with existing or approved onshore transmission infrastructure.[15]

In addition to the transmission analysis, the Roadmap outlines recommendations related to transmission that should be considered in BOEM's planning and development process. This includes incorporation of best practices to avoid and minimize impacts to the environment as well as developing strategies to de-risk transmission investments more broadly. As mentioned above, the state will be proactively working to advance transmission planning, both on and offshore.

Lease Stipulations and Bidding Credits

Maine advocates for multi-factor bidding credits and BOEM lease stipulations that support the objectives of the Maine Offshore Wind Roadmap, such as port and infrastructure investment, workforce development, economic development, fisheries support, research, transmission planning, and meaningful stakeholder engagement. The state encourages BOEM to provide the states with additional information and lessons learned from other regions and to work with the states to maximize investments in our communities from the lease sales and over the life of the projects. We are particularly interested in advancing approaches that support long-term investments in Maine, build relationships and trust in communities, and work within our regional context.

[14] https://newenglandenergyvision.com/new-england-states-transmission-initiative/
15 https://www.maine.gov/energy/sites/maine.gov.energy/files/inline-files/Maine%20OSW%20DNV%20Offshore%20Wind%20Transmission%20Technical%20Review%20Initial%20Report.pdf

As outlined in the Roadmap, Maine supports the passage of the bipartisan Reinvesting in America's Shoreline Economies and Ecosystems (RISEE) Act, which would amend the Gulf of Mexico Energy Security Act (GOMESA) and create a new dedicated stream of funding from future offshore wind development for coastal protection and resiliency. If passed, the legislation will also allow for more equitable resource sharing between states, the federal government, and conservation programs.

Lease Size and Configuration

Through the development of the Roadmap and the proposed Maine Research Array, the state and stakeholders have learned important insights into floating foundation, mooring, and anchoring technology. We also recognize that there are unknowns about commercial scale projects, particularly in the Gulf of Maine. We strongly encourage BOEM to work proactively with the offshore wind industry, the fishing industry, and other stakeholders to begin to understand ideal spacing, configuration, and directional recommendations for turbines within an array. This information should be used to inform the leasing process so that leases can be right-sized to maximize lowest possible cost energy while minimizing impacts to fishing grounds and other ocean uses. As outlined above, in areas with active fishing activity, fishing corridors should also be considered between lease areas, and designed with input from the industry. As outlined in the Roadmap, Maine also strongly encourages BOEM to work with affected ocean users to ensure mariners may safely operate within and around active turbines once projects are constructed, to ensure turbines and transit lanes are appropriately marked and lighted, and that emergency or search and rescue access is supported to the extent practicable.

Navigational Fairways

The state submitted comments regarding the U.S. Coast Guard's Gulf of Maine Port Access Route Study for the Gulf of Maine (USCG). The state strongly supports navigational safety and current and future maritime commerce. However, it is critical that the USCG base these important safety decisions on the best available information that is aligned with current and planned activities in the Gulf of Maine. The state recognizes the importance of ensuring safe navigation while also balancing competing uses of the Outer Continental Shelf when making its recommendations. Current vessel traffic does not appear to support the need for the full extent and location of additional fairways and fairway widths in the Gulf of Maine. The state remains committed to working with the USCG and BOEM on these issues.

Potential Radar Interference

Maine's Offshore Wind Roadmap includes an objective to support Maine's vital and thriving seafood industries and coastal communities, and a strategy to ensure safe navigation. Within that strategy, Maine advocates that BOEM require offshore wind developers to implement mitigation strategies to reduce wind turbine generator impacts on marine vessel radar, such as the use of reference buoys and advance radar designs, and fund upgrades of fishermen's radar to provide technology that minimizes or eliminates radar impacts.

Socioeconomic Information for Potentially Affected Communities

The January 2022 Gulf of Maine States' letter to BOEM[16] and the Maine Offshore Wind Roadmap identified a significant gap in socioeconomic baseline information to effectively characterize potential impacts of floating offshore wind on coastal communities, particularly those heavily dependent on fishing. Maine urges BOEM and other federal agencies to invest in gathering these data and developing tools to for meaningful socioeconomic assessments of potential impacts. The State of Maine partnered with the Maine Lobstermen's Association, Maine Lobstering Union Local 207, Maine Coast Fishermen's Association, Maine Center for Coastal Fisheries, University of Maine, Colby College, National Renewable Energy Lab, and the New Hampshire Department of Environmental Services to submit a grant proposal to the U.S. Department of Energy's Key Deployment Challenges for Offshore Wind funding opportunity to develop a model framework and methodology to help fill this information gap in the Gulf of Maine and beyond. Funding decisions are anticipated in the coming months. If funded, this information will be shared with BOEM and awarded lease holders to inform responsible offshore wind in the Gulf of Maine.

Future Study Needs

The Gulf of Maine remains one of the least studied regions by BOEM. We strongly encourage BOEM to invest in baseline research that is on par with other regions of the U.S. The state appreciates the recent initial investments made and would like and reiterates our comments on the need for additional research and monitoring as described in the Gulf of Maine States' letter to BOEM from January 2022[17], the State of Maine's research lease application and research framework[18], and the stakeholder-based Maine Offshore Wind Roadmap.[19] As one example, the Roadmap included the need to conduct a preliminary assessment for potential submerged paleo cultural landscapes in Gulf of Maine waters <200 feet deep to inform offshore wind development.

With bipartisan support from the Legislature, the state has made a significant commitment to advancing research to reduce costs and understand the local and regional impacts of floating offshore wind by establishing and providing initial funding for the Maine Offshore Wind Research Consortium. The consortium has a broad-based advisory board of Gulf of Maine experts, who have met several times and are identifying initial research priorities for a Request for Research Proposals later this year. The Consortium is collaborating closely with other states and regional and national science and research partners, including the National Offshore Wind Research and Development Consortium and the Regional Wildlife Science Collaborative, of which Maine is member. Additional funding will be needed to address the research priorities identified by the Consortium's advisory board. The state and partners are actively seeking federal, regional, and private funding opportunities

Thank you for the opportunity to comment. We look forward to continuing to work with BOEM, our neighboring states, other governmental entities, ocean users, and stakeholders to advance

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[16] https://www.maine.gov/energy/sites/maine.gov.energy/files/inline-files/Gulf%20of%20Maine%20States%20BOEM%20Environmental%20Studies%20Letter%20Jan%202022_0.pdf

[17] https://www.maine.gov/energy/sites/maine.gov.energy/files/inline-files/Gulf%20of%20Maine%20States%20BOEM%20Environmental%20Studies%20Letter%20Jan%202022_0.pdf

[18] https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/Maine-Research-Leas-Application.pdf

[19] https://www.maineoffshorewind.org/roadmap/

responsible, data driven development of offshore wind through a transparent process. Please contact celina.cunningham@maine.gov for additional information.

Sincerely,

Dan Burgess
Director, Governor's Energy Office