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Michelle Morin, Program Manager
Bureau of Ocean Energy Management
Office of Renewable Energy Programs
45600 Woodland Road (VAM-OREP)
Sterling, Virginia 20166

RE: Notice of Intent To Prepare an Environmental Impact Statement for Deepwater Wind South Fork LLC's Proposed Wind Energy Facility Offshore Rhode Island and Massachusetts

Dear Ms. Morin,

The Surfrider Foundation submits these comments to the Bureau of Ocean Energy Management ("BOEM") concerning the Notice of Intent ("NOI") to prepare an Environmental Impact Statement ("EIS") for Deepwater Wind South Fork LLC's proposed wind energy facility offshore Rhode Island and Massachusetts (Project).

The Surfrider Foundation is a grassroots environmental organization dedicated to the protection and enjoyment of the world's ocean, waves, and beaches through a powerful activist network driving conservation, advocacy, research and education across five initiative areas: beach access, clean water, climate change and coastal preservation, ocean protection, and plastic pollution mitigation. We submit these comments on behalf of our 79 chapters, 86 youth clubs, and more than 500,000 supporters, activists, and members in the United States, including the chapters most affected by this project, our Eastern Long Island, Massachusetts, and Rhode Island Chapters.

Surfrider recognizes the growing demand for nationally produced energy, and that offshore wind energy generation has the potential to provide the important benefit of

reducing emissions of greenhouse gases (GHG) to the atmosphere. Reduction of GHG emissions is critical if we are to avoid increasingly dangerous impacts from climate change. Offshore wind energy generation also has the potential to provide economic development opportunities for coastal communities.

Surfrider also recognizes that there are many questions and concerns about offshore wind energy production, including potential impacts to ocean recreation, the coastal and marine environment, public safety, aesthetics, and fishing access. Atlantic coastal and marine environments are regularly used by Surfrider members for a variety of activities, including beach going, surfing, kayaking, diving, kiteboarding, boating, photography, recreational sailing, wildlife viewing, and aesthetic enjoyment, which may be impacted by offshore wind energy development through diminished aesthetics, recreational opportunities, environmental quality, wildlife abundance, and public safety.¹

Surfrider therefore provides the comments below to BOEM as it assesses this Project. The comments are not intended to be conclusive of all issues but rather a summary of the most important issues for Surfrider and its members and supporters.

OBLIGATIONS UNDER NEPA

The National Environmental Policy Act of 1969 (“NEPA”) establishes a policy to encourage a productive and enjoyable harmony between humans and their environment, prevent or eliminate damage to the environment, and enrich the understanding of the ecological systems and natural resources important to the nation. (42 USC § 4321). In furtherance of this policy, NEPA requires the federal government to use all practicable means such that the Nation may, among other duties, fulfill its responsibilities as trustee of the environment for future generations; assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings; attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences; and enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources. (42 USC § 4331(b)). “NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken.” *Southern Utah Wilderness Alliance v. Norton*, 301 F.3d 1217, 1237 (10th Cir. 2002)(citing 40 C.F.R. 1500.1(b) and *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1988)).

¹ Surfrider Foundation. Coastal Recreation Studies. Available at: www.surfrider.org/pages/6230

The Council on Environmental Quality (CEQ) promulgated uniform regulations to implement NEPA that are binding on all federal agencies (42 U.S.C. § 4342; 40 C.F.R. §§ 1500.3). Federal agencies must integrate NEPA into the planning process at the earliest possible time to insure that planning and decisions reflect environmental values (40 C.F.R. §§ 1501.2; see also 40 C.F.R. § 1502.5). Until an agency issues its final decision on a proposal, no action concerning the proposal may be taken that would have an adverse environmental impact or limit the choice of reasonable alternatives (40 C.F.R. § 1506.1(a)).

NEPA requires that federal agencies disclose the environmental effects of their actions and identify alternatives and mitigation measures through an environmental report. NEPA requires federal agencies to prepare an Environmental Impact Statement (“EIS”) for major federal actions that significantly affect the quality of the human environment. 42 U.S.C. § 4332(2)(C). If an agency determines that the proposed action is one which does not categorically require an EIS under the agency’s procedures, the agency must prepare an Environmental Assessment (“EA”). 40 C.F.R. § 1501.4(a), (b); *Nat’l Parks & Conservation Ass’n v. Babbitt*, 241 F.3d 722, 730 (9th Cir. 2001). If the federal agency determines on the basis of the EA not to prepare an EIS, the agency must prepare a Finding of No Significant Impact (“FONSI”) setting forth a “convincing statement of reasons” to explain why the action will not have a significant impact on the environment. 40 C.F.R. §§ 1501.4(e), see also 40 C.F.R. § 1508.13.

One of NEPA’s key mandates requires Federal agencies, “to the fullest extent possible” to prepare a detailed environmental report for any major Federal action significantly affecting the environment, which addresses: “(1) the environmental impact of the proposed action; (2) any adverse environmental effects which cannot be avoided if the proposal is implemented; (3) alternatives to the proposed action; (4) the relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity; and (5) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented” (42 USC § 4332(c)).

Accordingly, Surfrider hereby submits the below comments regarding foreseeable impacts, including cumulative impacts from this and other foreseeable wind energy projects in the region, from the proposed Project on the affected environment. Such impacts, as well as alternatives and mitigation measures, must be included and considered in the Environmental Impact Statement (EIS).

ALTERNATIVES

BOEM should assess alternative offshore wind power generating technologies. The offshore wind generating industry is evolving rapidly and new technologies have the ability to reduce negative impacts from offshore wind generating projects. For example, “suction” and “gravity” turbine foundations do not require pile driving, one of the greatest negative impacts to the marine environment and species from wind turbine construction.

The “no action” alternative must also be seriously examined to account for cumulative impacts, data deficiencies, and our understanding of impacts from cumulative offshore wind generating projects in a given spatial area. Seriously considering the “no action” alternative would allow BOEM to proceed incrementally and cautiously to ensure that impacts from one project are understood before expanding the size of that project or proceeding with additional projects. BOEM must also employ adaptive management to ensure that new information is applied to assess needs for modification, mitigation, or removal of turbines. These measures would help smartly advance these projects, while also filling important data gaps in understanding that can be extrapolated to the benefit of offshore wind projects around the world.

ENVIRONMENTAL IMPACTS AND MITIGATION STRATEGIES

A major impact from offshore wind energy production is noise pollution during surveying, construction, maintenance, and operation of wind turbines. Many marine species, which rely heavily on sound for survival, are critically sensitive to noise impacts. These include species throughout the food chain, from plankton to fish to marine mammals.^{2 3} To prevent permanent or fatal injury to exposed marine life, BOEM must analyze methods of noise pollution mitigation through a range of noise reduction techniques, technologies, and avoidance measures.

In addition to noise impacts, offshore wind development may cause significant impacts to marine mammals through habitat displacement, altered migration routes, collisions with vessels, and impacts on prey species. One of the likely affected species is the North Atlantic right whale, which is critically endangered and known to use the areas under consideration. BOEM must analyze potential impacts on all marine mammal populations that utilize offshore wind lease areas and surrounding areas, as required under the Marine Mammal Protection Act and the Endangered Species Act. Mitigation

² Bailey, H., Brookes, K., & Thompson, P. 2014. Assessing environmental impacts of offshore wind farms: lessons learned and recommendations for the future. *Aquatic Biosystems*, Vol. 10, No. 8. *Available at:* www.ncbi.nlm.nih.gov/pmc/articles/PMC4172316/

³ Slavik, K. et al. The large scale impact of offshore wind farm structures on pelagic primary production in the southern North Sea. Submitted to *Hydrobiologia*. March 2018. *Available at:* arxiv.org/abs/1709.02386

measures for certain activities, such as pile driving (that are known to disrupt and threaten the North Atlantic right whale and other marine mammals), must be undertaken to best ensure the protection of the health of the species and the ocean ecosystem.

BOEM must analyze impacts to water quality and habitat from offshore wind projects. During installation of the turbine foundations and power cords, sediment will become suspended and impact the marine environment, especially if the sediment contains any toxic materials from historical offshore dumping. Careful analysis of turbine siting should be conducted to minimize the impact from such pollution during construction. Impacts from any fluids released from turbines during operation, such as lubricating oils, must be examined and mitigated.

Offshore wind development may cause significant impacts to bird and bat populations from collisions with turbines and habitat displacement. Rotor speed, rotor size, the amount of turbines, turbine location, turbine lighting and the cumulative impact of other turbine projects, are all factors that BOEM must examine. These factors can greatly affect the level of negative interaction between turbines and birds and bats. Offshore wind development may also displace populations from foraging grounds or cause avoidance of wind farms altogether.^{4 5 6} Impacts of avoidance should be examined through an ecosystem based management lens to determine the overall footprint of this disturbance, with careful monitoring and evaluation mechanisms clearly communicated in a transparent and public manner in place to address any adjustments that might help mitigate negative outcomes.

BOEM must analyze impacts from electromagnetic fields (EMFs) created by power cords connecting turbines to each other and to land. Many ocean species can detect EMFs, and some have been shown to change their behavior because of EMFs, including fish, sharks, turtles, and marine mammals.⁷ BOEM must also analyze impacts to air and

⁴ Loss, S; Will, T; Marra, P. 2013. Estimates of bird collision mortality at wind facilities in the contiguous United States. *Biological Conservation*: Vol. 168, Pp. 201–209. *Available at*: www.fws.gov/migratorybirds/pdf/management/lossetal2013windfacilities.pdf

⁵ Smallwood, K. 2013. Comparing bird and bat fatality-rate estimates among North American wind-energy projects. *Wildlife Society Bulletin*: Vol. 37, No. 1, Pp. 19-33. *Available at*: onlinelibrary.wiley.com/doi/abs/10.1002/wsb.260.

⁶ Sjollem, A., Gates, J., Hilderbrand, R., & Sherwell, J. 2014. Offshore Activity of Bats Along the Mid-Atlantic Coast. *Northeastern Naturalist*: Vol. 21, No. 2, Pp. 154-163. *Available at*: doi.org/10.1656/045.021.0201

⁷ BOEM. 2011. Effects of EMFs from Undersea Power Cables on Elasmobranchs and Other Marine Species. *Available at*: www.boem.gov/ESPIS/4/5115.pdf

water quality from construction and maintenance vehicles, including pollutant emissions and chemical leachates.^{8 9}

BOEM must analyze the impact of electric cables on the seabed and surrounding environment, including in the nearshore environment, where negative impacts to the ecosystem and recreation and tourism industry, could surface. Impacts to natural resources in the nearshore area, such as wave breaks and slope, must be mitigated. BOEM must also analyze potential impacts of shorebased or nearshore infrastructure needed to transfer power to shore.

For each of the environmental impacts listed above, BOEM must analyze them seasonally, as different species have varied sensitivities at different times of the year. Mitigation options to address seasonal movements of marine species must be assessed. Future developers of these leases must release a detailed construction schedule so that BOEM and the public can assess the effects to marine species. The cumulative impact from other planned offshore wind projects must also be addressed, as the offshore wind energy industry is poised to grow exponentially in the next decade.

HUMAN USE IMPACTS

Wind energy facilities constructed through BOEM's leasing process may cause significant negative impacts to a broad range of ocean and coastal recreation uses. BOEM should analyze potential impacts to these activities, as well as resulting socioeconomic impacts. Such activities include but are not limited to beach going, swimming, surfing, sailing, pleasure boating, diving, bird watching, whale watching, and other wildlife viewing. Scenic enjoyment of the marine environment is a valued aspect of many of these activities, as well as a recognized recreational use itself.

Impacts to recreational and commercial fishing must also be assessed, including possible economic, cultural, and safety concerns. Turbines could potentially create dangerous situations for fishermen, as well as other ocean users such as pleasure boaters and divers. BOEM must evaluate emergency response plans for any turbine safety issues.

Ocean recreation and tourism is the largest and most economically significant ocean sector use in the United States. Tourism, and the recreation it relies on, constitutes the

⁸ BOEM. Environmental Risks, Fate, and Effects of Chemicals Associated with Wind Turbines on the Atlantic Outer Continental Shelf. 2013. *Available at:* www.boem.gov/ESPIS/5/5330.pdf

⁹ Sotaventogalicia. Nd. Non toxic, biodegradable and renewable lubricants for wind turbines. *Available at:* www.sotaventogalicia.com/en/projects/non-toxic-biodegradable-and-renewable-lubricants-for-wind-turbines

single largest contribution to our ocean economy, engaging millions of Americans, and generating more than \$100 billion to our nation's economy each year.¹⁰ These activities are also critical to sense of place, culture, and quality-of-life in many coastal communities. Accordingly, decisions regarding the potential siting of offshore wind energy development must avoid or minimize impacts to recreational uses and associated values.

CUMULATIVE IMPACTS

Offshore wind energy projects must also be thoroughly examined for cumulative impacts and data deficiencies, and allow for adaptive management corrections at a region-wide scale. The various and significant impacts from these projects to the environment, and the potential effects on human uses should be analyzed broadly and with attention to industry-wide impacts, rather than solely examined project by project. Currently, the offshore wind power generating industry on the U.S. Atlantic coast is poised to grow from a few operating turbines to hundreds, in five to ten years. Seriously considering cumulative impacts would allow BOEM to proceed incrementally and cautiously to ensure that impacts from one project are understood before expanding the size of that project or proceeding with additional projects.

REGIONAL OCEAN PLANNING

Surfrider is very disappointed with the recent revocation of the National Ocean Policy (NOP). The NOP spurred agencies, stakeholders, and tribes to increase collaboration, communication, and data sharing concerning offshore renewable power generation. We implore BOEM to continue to work with states, tribes, and stakeholders to implement the actions in the two approved Regional Ocean Plans, and to continue to update and utilize data on the ocean data portals.

Regional Ocean Plans should be recognized as key planning documents for informing the siting of potential offshore renewable energy generation developments. The Northeast and Mid-Atlantic ocean plans involved years of data collection and public process. These planning efforts brought together relevant federal agencies, states, tribes, fishery management councils, stakeholder groups, and interested members of the public to develop a common vision for the future development and conservation of the ocean.

A core element of regional ocean planning is the collection and analysis of geospatial information on ecological resources and human uses in the coastal and marine

¹⁰ National Ocean Economics Program. *Available at:* www.oceaneconomics.org

environment. These data sets can be accessed through the regional ocean data portals and are critical resources for BOEM and other agencies, as well as permit applicants, to consider when evaluating siting of potential wind energy generation developments. Data portals provide a transparent and common reference for all stakeholders potentially affected by offshore projects.

From 2014-2015, Surfrider Foundation collaborated with other groups to collect data on coastal and ocean recreational uses in the Northeast and Mid-Atlantic.¹¹ Surfrider collected a variety of information on over twenty categories of non-consumptive recreational use to identify geospatial, temporal, economic, socioeconomic and demographic data. This data is accessible on the Mid-Atlantic and Northeast ocean data portals.^{12 13}

COMMUNITY AND STAKEHOLDER INVOLVEMENT

Stakeholder engagement for offshore renewable energy development must be conducted at both the local and regional level, as coastal industry and livelihoods can be impacted by offshore development that occurs in areas beyond a specific location, jurisdiction or viewscape. BOEM must additionally consult with tribal leaders to analyze any potential impacts to sacred, submerged tribal lands.

BOEM and offshore renewable energy developers must engage stakeholders early and use various engagement mechanisms, including leveraging existing lists of potentially affected stakeholders and explicitly requesting amplification of engagement opportunities; utilizing traditional and nascent media to properly notify and promote; and by ensuring effective messaging targeted to help the public understand the risks and benefits of a given project in order to effectively participate in the process and offer informed feedback. Surfrider can assist in reaching potentially affected stakeholders along the Atlantic Ocean who utilize coastal and marine areas for recreation.

Surfrider urges BOEM to identify wind areas through the established Wind Energy Area (WEA) identification process, known as Smart from the Start, instead of the “unsolicited bid” process. That latter circumnavigates scientific analysis and public input on determining location of offshore renewable energy development projects. Additionally, it ignores and negates the years of public outreach and data collection that has occurred through regional planning processes. The high level of interest in the most recent bids along the U.S. Atlantic coast demonstrates that the unsolicited bid process is no longer

¹¹ Surfrider Foundation. Coastal Recreation Studies. *Available at:* www.surfrider.org/pages/6230

¹² Mid-Atlantic Regional Council on the Ocean. Mid-Atlantic Ocean Data Portal. *Available at:* portal.midatlanticocean.org

¹³ Northeast Ocean Data. *Available at:* www.northeastoceandata.org

needed to spur development. BOEM's WEA approach to renewable energy development starts with selecting sites that avoid obvious ecological and human-use conflicts; BOEM should exclusively use the WEA identification process moving forward.

Lastly, BOEM must engage and consult with the coastal and marine science community for proposed offshore wind energy projects. This community can assist in developing scientific surveys to analyze ecological conditions before, during, and after projects, helping to build our knowledge of the impacts of offshore renewable energy. Efforts to conduct thorough baseline research and establish long-term monitoring programs must be required by developers, and made publicly available to benefit the scientific community and to inform future offshore renewable energy projects. Thank you for your consideration and incorporation of our comments.

Sincerely,

Andrew Brosnan, Chair
Eastern Long Island Chapter of the Surfrider Foundation
chair@easternli.surfrider.org