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Commercial Leasing for Wind Power on the Outer Continental Shelf (OCS) Offshore New Jersey – Call for Information and Nominations

Comment On: BOEM-2011-0005-0001

Commercial Leasing for Wind Power; Call for Information and Nominations Outer Continental Shelf Offshore New Jersey

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Comment from sharon young, organization

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General Comment

We support the development of alternative energy sources. However, in the parlance of real estate agents, when it comes to impacts on wildlife, it is all about "location, location, location." It is not so much whether we should have offshore wind energy, but where it should be sited. That a site is not in the midst of a shipping lane, is of no concern to other agencies (e.g., the Department of Defense) and has regular and sufficiently strong winds should not be the only or even the most paramount concerns. Support of alternative energy is often predicated on the need to provide a healthier environment, but poorly sited facilities (such as in the case of the earlier mentioned terrestrial sites) have the potential for devastating impacts on wildlife and their habitats. Because it is far more difficult to monitor post-construction effects in a marine environment, it is even more important that a pre-construction risk assessment be thorough and precautionary and that monitoring be rigorous both prior to and subsequent to construction.

We are concerned that the risk to some species in the area (particularly the risk of habitat displacement of large endangered whales) may have been underplayed in the evaluation.

Additional, more detailed, comments are attached.

Attachments

BOEM-2011-0005-DRAFT-0003.1: Comment from sharon young, organization



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June 3, 2011

RE: Call for Information and Nominations for Commercial Leasing for Wind Power on the OCS Offshore New Jersey, BOEM-2011-0005

Dear Mr. Waskes,

On behalf of the more than 10 million members and constituents of The Humane Society of the United States (The HSUS), I am submitting comments on your request for information regarding proposed leasing of tracts offshore of New Jersey. [76 FR 22130, April 20, 2011]. The Bureau of Ocean Management, Regulation and Enforcement (BOEMRE) has proposed leasing sites for offshore wind energy development in this area along with proposed lease tracts extending from Maine to Florida. We will first address general concerns related to impacts of offshore wind energy on wildlife and then, more specifically address concerns to marine mammals in the proposed lease area.

General Issues of Concern to Wildlife

The HSUS strongly supports the development of alternative energy generating capacity. However, as with any energy technology, it is vital that there be a meaningful consideration of not only the benefits of wind energy in this area, but the potential adverse effects on wildlife and habitat. As the BOEMRE seeks to encourage offshore wind energy development, it must try to avoid mistakes that have had dire consequences for terrestrial wildlife that resulted from inadequate analysis of potential risk prior to construction. We point, as examples, to the large wind facility in Altamont California that, as recently as 2008, was still estimated by state officials to kill 1,000 – 4,000 raptors annually (Heartland, 2008) and the Mountaineer Wind Energy Center and nearby facilities in West Virginia where studies have found that thousands of migratory bats are killed each year as they cross the Appalachians, with hundreds of others dying in ridgetop sites (Tuttle, 2005; National Geographic, 2010). In these and other instances, initial risks were either not considered or were underplayed, and mitigation has only been considered after tens of thousands of birds and/or bats were killed in land-based

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wind energy facilities. The mistakes of land-based developers and regulators, who failed to fully analyze risks *before* they had devastating consequences, should not be replayed in the ocean environment.

While no guidance has been provided to developers in documents we reviewed regarding pre- and post-construction monitoring, we point to the recent draft guidelines issued by the U.S. Fish and Wildlife Service regarding terrestrial sites (USFWS, 2011). Although they were not developed to address more specialized concerns with siting wind energy in a marine environment, they offer useful advice. For example, they advise developers to avoid areas that could pose high levels of risk to wildlife. However, we note that a BOEMRE power point presentation with regard to the New Jersey site makes no mention of risk to wildlife in the slide with maps depicting areas of risk and simply outlines areas of concern to government agencies such as the Department of Defense or Coast Guard (BOEMRE 2010). However, the documents provided as part of the Ocean/Wind Power Ecological Baseline Studies (OWPEBS) off New Jersey provide evidence of survey work done over a period of 2 years (though not in all seasons) as a means of providing some baseline data. The HSUS commends this effort but will reference here and below, some of the weaknesses in the risk assessment that result from limits on surveying this area.

We understand that the process of National Environmental Policy Act (NEPA) review will follow, but urge BOEMRE to undertake localized monitoring of particular lease tracts that may not have been subject to the same degree of monitoring as others in the larger lease area or were not subject to monitoring in all seasons. Potential developers, and BOEMRE itself, may be guided by some of the questions that USFWS guidelines ask agencies and developers to consider at various stages of site selection and development (*Op.cit.*). This monitoring should take place both within and just outside of the project footprint of an individual lease site and employ a before-after, control-impact (BACI) design. The BOEMRE should assure that the applicants liaise with all relevant academic, governmental and conservation interests to insure that all relevant information is included in risk analysis.

We are particularly concerned that some of the monitoring for cetaceans may not be adequate to provide sufficient baseline to determine whether or not displacement from normal foraging or migratory areas occurs during or post-construction. We note that the OWPEBS documents indicate that shipboard surveys were done either once or twice monthly and aerial surveys appear to have been done only once for a portion of the year in 2009. This not only misses the need to account for inter-annual variability in habitat use (not possible with surveys in a single year) but it also missed key months when animals may have been observed in the area that was not surveyed.

As discussed below, displacement is a significant concern if animals are removed into adjacent areas that have higher levels of potentially fatal vessel traffic or commercial fisheries employing

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gillnets or trap/pot gear known to entangle them. Displacement may result from noise generated during construction and operation, but also if large whales prefer to avoid traversing a project site and go around it rather than went their way through a maze of monopoles or various cables that are anchoring floating platforms.

The maps and analysis that were done for the OWPEBS do not include the most recent information on areas of concern; for example, The HSUS petitioned for an expansion of critical habitat for North Atlantic right whales that would include a migratory corridor through the mid-Atlantic, including the waters of New Jersey that are part of the proposed lease sites. In 2010, the National Marine Fisheries Service (NMFS) committed to revising the critical habitat and announcing proposed revisions in late 2011 [75 FR 61690, October 6, 2010]. This should be factored into the designation of sites that may be inappropriate for development.

Risk to Cetaceans From Proposed Development Blocks Off the Coast of New Jersey

Risk to cetaceans from offshore wind energy facilities are quite different than those that are somewhat better known for avian species. Some studies have found adverse impacts to birds and bats, little is known of impact to cetaceans. Collisions with rotors or towers are not a concern for marine mammals but collisions with vessels involved with construction and/or maintenance of an offshore facility *is* a concern, particularly for large cetaceans. Construction noise or low frequency noise of operation may also be aversive to marine mammals in a way that they are not to birds. Studies of impacts to marine mammals that were done in Northern Europe are not terribly illustrative, as that area lacks many of the species found in the waters off New Jersey. The displacement of seals and harbor porpoise that was documented during construction in European sites such as Horns Rev and Nysted has some relevance here, but these species are not the only species of marine mammals, or even those of primary concern, that may be affected by construction off the East Coast of the U.S. In addition to harbor porpoise, which *are* of concern in the waters off New Jersey, species such as bottlenose dolphins, other small cetaceans and various large endangered whale species are either seasonally resident or migratory and may be placed at risk with little if any understanding of the risk to them from an industrial sized energy facility in their customary habitat. The year-round presence of some of these species and their non-clumped distribution make an understanding of their habitat use (and the alteration thereof following construction) difficult to assess.

Potential adverse impacts, such as displacement, that result from the noise during construction has been the focus of European studies and seems to be the focus on the risk assessment in the OWPBES documents. European studies of impacts on seals and harbor porpoise are referenced,

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acknowledging that “[c]hanges to normal behavioral activity might be incurred at ranges of many miles.” (OWPBES, Volume 1, chapter 5) Although the section on habitat loss assures that impacts from construction can be reduced by “careful planning of a wind farm site relative to the habits and habitats of [these animals]” (*ibid.*); as we note below, the surveys that were undertaken and the resultant baseline data may not be sufficient to assure that the siting will be risk averse for some of the more sensitive species that have never been studied in extant facilities. In fact, Table 5-4, which summarizes impacts, does not mention marine mammals in its listing of species that may be displaced during the operational phase. Table 5-6 only mentions displacement of marine mammals being possible during construction.

Later discussion of marine mammals simply says that there is “potential disturbance of marine mammal communication and migration routes due to emission of low frequency sound.” (*ibid.*) We believe that there are reasons to think that large cetaceans in particular may be displaced during operations, either by the low frequency sound or the physical barrier posed by a maze of monopoles or anchoring cables.

The anchoring systems, whether monopole or from the cables/chains used to anchor “floating” platforms may result in habitat displacement for large cetaceans as they may be perceived as a low frequency noise emitting “maze” through which they would prefer not to pass. It is not known whether large cetacean will navigate their normal pathway or whether they will instead choose to stay outside of the turbine field. Studies to date have not been conducted in areas where this sort of potential displacement effect could be tested. Should migration be displaced, it is possible that animals may be forced into areas with greater concentrations of commercial fishing (that poses entanglement risk) or commercial shipping (with attendant risk of collisions). We note, for example, that the OWPEBS documents show areas of higher use for tug and barge traffic on the periphery of the lease area and there are also shipping lanes that have been identified. Fishing takes place both within and just outside of a number of lease tracts. There may be an increased risk from collisions with vessels if large cetaceans are displaced into heavier shipping areas by a field of monopoles or (of greater concern) tensioned cables strung along their route. Further, entanglement in commercial fishing gear is a major conservation concern for endangered humpbacks and right whales that pass through this area seasonally and displacement into areas with heavier concentrations of fishing may increase this risk as well.

We are also concerned that the cumulative impact analysis must be rigorous. It is not sufficient to simply evaluate each project proposed for installation along the Atlantic in isolation, nor to consider large lease blocks state-by-state without considering the cumulative impacts of projects proposed for the OCS just offshore of each state from Maine to Florida. The cumulative impacts of so many proposed developments must be considered. For example, even if the likely risk to a

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large whale species from increased site-to-shore vessel traffic appears small for an individual project, when added to projects proposed all along the coast from Florida to Maine, the risk may be considerable for species such as North Atlantic right whales that migrate along the entire US eastern seaboard. And this cumulative risk assessment should consider that it is added to the unsustainable levels of mortality and risk they are already facing from vessel traffic and from entanglement in commercial fishing gear independent of these projects.

Concerns are greater for some species that are acknowledged in the OWPEBS documents to be present seasonally or year-round.

North Atlantic Right Whales

The NMFS estimates around 400 members of this critically endangered species extant (NMFS 2010b). Ninety percent of sightings of right whales in the mid-Atlantic are within 30nm of shore (NMFS 2008). Some studies have indicated that the areas used by right whales are greater in scope than generally accounted (Schick, et al., 2009). Further, limited telemetry studies have shown that right whales make forays into the waters of New Jersey and elsewhere during summer and fall (Baumgartner and Mate, 2003) and government ship strike data bases show collisions in the mid-Atlantic in most months (Jensen and Silber, 2004). Similarly, entanglement data bases maintained by the National Marine Fisheries Service (NMFS) document entanglements and strandings of large whales in or offshore of New Jersey.

In the fall, adults migrate to calving areas in the Southeast U.S. and mothers bring their very young calves north in the spring as they head to feeding area in the Northeast U.S. and Canada. Thus the areas proposed for development would be in the middle of their migratory route. As noted above, their seasonal migrations could be displaced by a field of anchor cables or monopoles and thus expose them to dense ship traffic that would be in shipping lanes, often depicted adjacent to lease blocks on BOEMRE maps. Displacement into more heavily fished areas (or increased fishing effort within the project footprint that may occur if the anchoring systems serve as fish aggregating devices) could increase risk to right whales. Collisions with vessels and entanglement in fishing gear are the greatest threats facing this species (NMFS 2010b).

In Europe, where most studies of effects have been conducted, there are no large cetaceans that are either resident or migratory, and the possible effects of displacement (either due to a dense maze of turbine anchoring systems or low frequency acoustic emissions) have not been studied. As a result, it is vital that risk be appropriately studied and addressed prior to discovering dire consequences such as happened in ill-sited terrestrial facilities.

The OWPEBS states that right whale calls were detected on the acoustic pop-up buoys located 11.6 nm from shore. All sightings were within 17 nm of shore and “high densities of endangered marine mammals were predicted through the study area between 1-20 nm from shore, consistent

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with a review of previous sightings data.” There was also a January 2009 sighting of 2 adult males exhibiting skim feeding behavior off Barnegat light. The document states that “[b]ased on the endangered status and low overall abundance of this species, the detection of even one right whale in the Study Area is an important occurrence. We recommend the inclusion of nearshore waters off NJ in future right whale studies to better understand the importance of these waters to this species, particularly during the winter months when migrating individuals and possible feeding were documented in the study area.” (OWPBES, Volume 3, chapter 6)

This underscores the need for additional monitoring and risk assessment prior to a rush to construct.

Humpback Whales

This species is also endangered and seasonally resident in the mid-Atlantic as the OWPEBS documents acknowledge. These documents indicate that, even with limited monitoring, a humpback whale was observed lunge feeding off Atlantic City and concluded that this, along with observation of other species, including cow-calf pairs indicated that “the nearshore waters off New Jersey may provide important feeding and nursery habitat for these endangered species.” (OWPBES, Volume 3, chapter 6)

Many of the humpbacks found off the shores from North Carolina through New Jersey, particularly in the winter, are juveniles who do not make the long journey to the Caribbean mating grounds and feed in the winter in the waters of the mid-Atlantic (NMFS 2010b). As is the case with right whales, the potential for displacing them into risk-prone areas needs to be studied. They too are vulnerable to ship collisions and some years evidence high rates of entanglement-related deaths in that area (NMFS 2008, NMFS 2010)

Bottlenose Dolphins

The animals in this species are managed by the NMFS in a number of stocks. Some are regionally resident and others move northward or southward seasonally, but bottlenose dolphins can be found in the mid-Atlantic year round. Coastal bottlenose dolphins, including this particular management stock, are designated as depleted under the Marine Mammal Protection Act. As was noted above in our comments on impacts to large whales, studies of potential impacts on dolphins have not been undertaken in extant marine wind farms. If monopole construction is used, we may expect displacement during construction as was found for harbor porpoise in Denmark (Tougaard, et al., 2003). However, harbor porpoise and bottlenose dolphins are very different species both behaviorally and biologically so monitoring and risk assessment needs to be specific to this species.

Harbor Porpoise

As the OWPBES analysis indicates, harbor porpoise are seasonally resident in the waters offshore of New Jersey. The documents state that, although 90 percent of the observations of

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porpoise were made during February and March (which supports literature indicating that January through March are the times of greatest presence in the area), difficult fall weather precluded surveys that likely would have detected them. This, again, indicates that reliance on the surveys done as part of the New Jersey OWPEBS would be insufficient to provide assurance that they are not at risk in certain seasons such as fall, when construction may be considered to avoid the known presence in the late winter.

Harbor porpoise have been particularly vulnerable to entanglement in commercial gillnets in an area of New Jersey often referred to as “the mud hole.” So significant is this issue that the species is subject to a mandatory take reduction team focused on reducing mortality in this species that exceeds sustainable limits. Information on seasonal entanglement of this species, and seasonal closures off New Jersey to protect them, can be found at the National Marine Fisheries Service’s Northeast Regional Office website for the harbor porpoise take reduction team (NMFS 2010a). It is vital that any construction off coastal New Jersey not add to conservation concerns, either directly or indirectly through displacement of porpoises during construction or operation into areas of greater fishing effort and thus higher mortality risk.

Other Cetaceans

While the above species are the more commonly found protected species with a designated status as endangered or depleted, there are others in the area that could be adversely affected. The OWPEBS documents acknowledge a number of other species that are likely to be present in the areas proposed for leasing, some of which were observed during the monitoring studies and others that were not. In establishing a precautionary baseline, and using that to monitor for effects, it is important that additional survey effort be undertaken and that regional research organizations be queried as well for the habitat use by cetacean species commonly found in the area. These queries can help design a monitoring and mitigation program specific to sites chosen for development.

Conclusion

We support the development of alternative energy sources. However, in the parlance of real estate agents, when it comes to impacts on wildlife, it is all about “location, location, location.” It is not so much whether we should have offshore wind energy, but where it should be sited. That a site is not in the midst of a shipping lane, is of no concern to other agencies (e.g., the Department of Defense) and has regular and sufficiently strong winds should not be the only or even the most paramount concerns. Support of alternative energy is often predicated on the need to provide a healthier environment, but poorly sited facilities (such as in the case of the earlier mentioned terrestrial sites) have the potential for devastating impacts on wildlife and their habitats. Because it is far more difficult to monitor post-construction effects in a marine environment, it is even more important that a pre-construction risk assessment be thorough and precautionary and that monitoring be rigorous both prior to and subsequent to construction.

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We are concerned that the risk to some species in the area (particularly the risk of habitat displacement of large endangered whales) may have been underplayed in the evaluation.

Thank you for the opportunity to comment on this important issue.

Sincerely,



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