

Tenley Wilder
Resident

Dear Committee Members

I am in support of LD101 "An Act to Prohibit Offshore Wind Development".

I strongly believe that any offshore wind infrastructure, including the installation of cables in the waters off the coast of Maine would be detrimental on many fronts:

- Risk to endangered species such as the Atlantic Sturgeon when bringing cable ashore
- Changes to the sensory environment of benthic inhabitants (not yet studied sufficiently)
- Economic consequences not just to coastal communities but to the entire state of Maine
- Disruption of migration patterns of whales, a serious concern in the Gulf of Maine

As a biologist, I understand the myriad ways that offshore wind can be detrimental to the benthic and intertidal ecosystems (where the cables would come ashore). I encourage you to read these following studies: "Identifying the Consequences of Ocean Sprawl for Sedimentary Habitats" (Heery, E. et al., 2017), "Environmental Impacts of Offshore Wind Farms in the Belgian Part of the North Sea: Learning from the past to optimize future monitoring programmes" (Degraer, S., 2020) and "The Introduction of Artificial Structures on Marine Soft and Hard Bottoms: Ecological Implications of Epibiota" (Bulleri, F., 2005). The damage that will be created by a dredge running cable to the shore from offshore wind farm arrays- or even for the proposed research floating turbine for the University of Maine and the associated cable running up the Damariscotta River- is arguably catastrophic. The endangered species in our area will be at risk from the increased siltation. This will have direct consequences on the Atlantic Sturgeon- a state and federally protected species. Another issue with laying cable in defined benthic habitats is not necessarily the change in topography (as some scientists suggest that additional cobble created by such endeavors will be beneficial to molting lobsters), the changes to the sensory environment for all bottom dwelling creatures has not been studied to the satisfaction of any scientific group. To proceed with incomplete knowledge of the effect on these systems is irresponsible. I would go so far as to equate these irrespective wind array plans to the early damming of rivers. In hindsight, we know that species and ecosystems were fundamentally changed as dams sprung up across the country. We also know that removing them now would often be as damaging as the installation and resulting consequences in the first place. Why are we continuing to make the same mistakes when we have the technology and insight from past mistakes to build better and less disruptive renewable sources of energy? Ocean sprawl is inexcusable and it is our responsibility to proceed with caution.

Specifically to Maine, we are dependent upon a benthic species, the American Lobster, for our identity and economy. In 2018, the lobster industry brought in approximately \$500 million to Maine's economy (Maine DMR 2019). Tourism accounts for another \$2.5 billion, and much of that is directly related to the lobster industry. The restaurant industry, hotel industry, retail boutique, seafood processors and so many other entities are dependent upon this healthy, sustainable, model fishery. The proposed wind development would eliminate thousands of acres of productive fishing bottom to Maine's lobster fishing fleet, resulting in dire economic consequences to an industry that is already under severe threat. The turbines will also be a serious hazard to navigation fishermen and pleasure boats alike.

Whales and other species that inhabit the waters of the Gulf of Maine are an additional consideration. The decibel disturbance of the running turbines will immediately change the communication of the North Atlantic Right Whale, the North Atlantic Humpback Whale, and Finback Whale. Additional marine mammals, reptiles and fish species ranging from dolphins, porpoises, seals, sea turtles, and sunfish will also be affected. These are not measures that can be undone once we go down this path.

I urge you to prohibit the development of wind farms in the Gulf of Maine. Strictly from a scientific perspective, the inherent damage to the ecosystems involved will far outweigh the benefits of this "clean energy" source. I urge you to continue to study the impact on benthic creatures regarding EMFs rather than considering only commercial and recreational fish within the water column. Please consider the impacts of these systems on migrating whales. And finally, recall mistakes of the past and let's find a solution where the benefits far outweigh any unintended, uncalculated, and brazenly ignored eventual consequences. The Gulf of Maine is not the answer.

Respectfully submitted,

Tenley Wilder