Ecology Action Centre
P. 902-429-2202
F. 902-405-3716
2705 Fern Lane
Halifax, NS | B3K 4L3

January 30, 2024

Committee for the Regional Assessment of Offshore Wind Development in Nova Scotia
Impact Assessment Agency of Canada
200-1801 Hollis Street Halifax,
Nova Scotia B3J 3N4
OffshoreWindNS-EolienneExtracotiereNE@iaac-aeic.gc.ca

Sent via Email

Re: Feedback on the Areas for Offshore Wind Development in NS

Dear Members of the Committee,

Thank you for your feedback request dated December 4, 2023. As a member of the Scientific Information and Community Knowledge Advisory Group, the Ecology Action Centre (EAC) would like to share some thoughts on the suitable and unsuitable sites for offshore wind development in the Study Area for the Regional Assessment.

EAC has expressed conditional support for offshore wind power generation. While wind power generation has numerous benefits, if offshore wind developments are built in the wrong places or without the inclusion of nearby coastal communities, they could perpetuate ecological degradation, environmental racism, and the harmful industrial practices primarily responsible for the climate and biodiversity crises we face today. Considering the importance of a renewable energy transition in solving these crises, we must minimize ecological damage while ensuring the benefit of communities affected by offshore wind decisions. We cannot repeat patterns of energy development profiting large corporations at the expense of localized ecosystems and community well-being if we wish to secure a future for offshore wind in Atlantic Canada.

In our view, a comprehensive Regional Assessment must include three key components, each of which should be considered in the selection of a narrowed study area: **(1) ecology**, including the spatial mapping of biodiversity, ecological connectivity, species at risk, habitat needs, migratory routes, and marine soundscapes needs of fish and marine mammals; **(2) social, economic and cultural values**, cost-benefit analyses (e.g., impact to fisheries), assessment of social license, and potential community benefit arrangements that could be applied towards net positive social and economic outcomes in regions with offshore development potential; and **(3) the decarbonization of Nova Scotia's electricity grid,** and further study to determine Potential Future Development Areas (PFDAs) that can support low-cost energy for ratepayers within the province.

The EAC recommends that areas for further study focus on locations with the least detrimental effect on the following factors:

- Protected Areas: *Oceans Act* Marine Protected Areas, National Marine Conservation Areas, *Fisheries Act* Marine Refuges and Other Effective Area-Based Conservation Measures counting towards Canada's marine conservation targets must be off-limits to offshore wind developers. Any consideration of development in these protected ocean spaces risks undermining the integrity of Canada's marine conservation objectives. Development consideration for Marine Refuges, in particular, risks entrenching an existing "double standard" whereby fishing activity is restricted while impacting industry activities is permitted in ecologically sensitive locations. Areas of Interest for future marine protection included as part of existing Maritimes and Gulf region marine conservation network plans should also be removed from (PFDAs).

- Ecologically and Biologically Significant Areas (EBSAs): Maritimes and Gulf region EBSAs, identified in both offshore and nearshore coastal areas, should be studied in detail to safeguard sensitive regions from development. EBSAs spanning the study region include several areas identified as highly compatible for development by CANMET analysis (e.g., Sable Island Shoals, Middle Bank, parts of the Northumberland Strait, Browns Bank, and George's Bank).

- Significant Benthic Areas: All data on sensitive benthic areas (e.g., cold water coral and sponge habitat) should be collected and considered before defining narrowed study areas.

- Habitat Needs of Marine Species: Negative impact on habitat areas for cetaceans, other marine mammals, fish species, and aquatic species at risk should be assessed and minimized. Assessment should involve life history analysis and development restrictions in known feeding, nursery, mating, and migration areas where possible. Beyond the direct physical impacts of wind turbine development, this assessment should also consider the ocean soundscape and risks to acoustically sensitive species during the construction and operation phases.

- Migratory Seabird Routes: Identify and avoid critical areas for bird migration routes, nesting sites, or feeding grounds. Collisions with wind turbines and changes in bird behaviour can adversely affect avian populations.

- Fisheries and aquaculture: Clear and granular information needs to be reviewed and included on commercial, Aboriginal, FSC, recreational, and charter fishing and aquaculture sites. The current maps of fishing and aquaculture activity are often at too large a scale to appreciate the difference between fleets (offshore, mid-shore, inshore), activities and gear, and, therefore, direct, and indirect impacts on owner-operator fisheries and communities versus large corporate fisheries, versus Indigenous fishers and communities. Without this level of information, it will be difficult to fully understand the potential trade-offs, loss of income, and impacts on numbers of fishing families, fish workers, etc., if there is disruption to fishing grounds. Avoiding high-use areas, mainly by owner-operator fleets, is essential. Disruption of fishing grounds can lead to significant economic ramifications for coastal communities.

- Cultural and Archaeological Heritage: Avoid disturbing areas of significant cultural or archaeological importance, such as historic shipwrecks or cultural heritage sites, as this can result in the loss of valuable historical and cultural resources.

- Shipping Routes: Ensure shipping lanes and navigation channels are included in mapping and assessment of potential impacts, hazards, and conflicts.

- Conflicts with Other Infrastructure: Ensure existing or planned infrastructure, such as pipelines, undersea cables, or other offshore developments, are included in mapping and assessment.

- Visual Impact on Coastal Areas: Due to the potential impact of wind turbines, it is essential to balance the benefits of renewable energy with minimizing visual disruption, especially in coastal areas with high scenic or recreational value.

Offshore wind farms are built to harness wind energy, diversify the energy sources, minimize electricity based on fossil fuels and decarbonize the grid, whereby selecting suitable locations is crucial. The following factors should play a role in determining locations for further study:

- Selecting suitable locations for offshore wind turbine installations involves comprehensively evaluating key factors. Among these considerations is the availability of a consistent and robust wind resource, considering factors such as wind speed, direction, and turbulence. Additionally, the water depth in potential areas is crucial, with different turbine designs and foundations requiring specific depth requirements. The seabed conditions, encompassing soil stability, composition, and topography, significantly impact the choice of foundation types, influencing the feasibility of offshore wind turbine installations. This holistic assessment ensures the identification of optimal sites that meet the criteria for successful and efficient deployment of offshore wind energy projects.

- Social license and potential benefit to local communities: PFDA selections should consider available social license metrics and require meaningful engagement with nearby coastal communities, Right-holders, and stakeholders.

- Distance to Shore: Balancing proximity to the shore for cost-effectiveness with sufficient distance to reduce visual and environmental impacts is essential. The distance of the offshore wind farm from the shore affects the cost of transmission infrastructure and power export.

- Grid Connection: Accessibility to the power grid is critical for transmitting the generated electricity to consumers. Proximity to existing onshore electrical infrastructure and the capacity of the grid to handle the additional electricity are needed considerations.

- Infrastructure and Logistics: Availability of ports for construction and maintenance activities and logistical considerations for transporting equipment and personnel are critical for project planning.

By evaluating these factors, developers can pinpoint offshore wind farm locations that balance energy production, economic feasibility, and environmental sustainability. EAC considers it vital to avoid these projects becoming “stranded assets” that do not contribute to the decarbonization of the electricity grid and, in the short term, convert environmental liabilities within the ocean.

Finally, as the narrowed study area is defined, development potential becomes real for nearby communities. Building and maintaining a positive engagement with these communities will require clearly articulating plans to protect critical ecosystems, economies, and social interests as soon as possible. In our view, the Committee’s initial treatment of these concerns, followed by the federal government’s willingness to address these concerns per Committee recommendation, may positively or negatively define the environment for community engagement on offshore wind moving forward. We urge the Committee to prepare for these discussions as PFDAs are selected, and we hope to be a resource to the Committee where we can on the topic of engagement.