



September 26, 2023

Committee for the Regional Assessment of  
Offshore Wind Development in  
Newfoundland and Labrador

**Subject: Natural Resources Canada's comments on the proposed Focus Area for the regional assessment of offshore wind development in Newfoundland and Labrador**

Dear Committee,

On August 21, 2023, the Committee for the Regional Assessment of Offshore Wind Development in Newfoundland and Labrador (the Committee) requested feedback on a proposed [Focus Area](#) within the Study Area set out in the [Agreement](#). Areas outside the focus area would not be subject to further analysis and engagement during the Regional Assessment and would not be recommended by the Committee for licensing at this time.

Please see our response to the following feedback questions.

**Indicate whether you agree or disagree with the proposed Focus Area:**

At this stage, Natural Resources Canada (NRCan) would suggest maintaining the present Study Area.

NRCan recognizes the Committee's reasoning for the proposed Focus Area. Sea ice, icebergs, and wave height, among the other considerations referenced in the proposal, are challenges to consider for the development of offshore wind energy. Using iceberg datasets makes sense to constrain development. Identification of where ice-resistant foundations have been developed and currently being deployed offshore of Finland, is also an important consideration. Although, if other opportunities exist that are more cost effective, it is logical that they would be proposed first. However, if the purpose of this focus area is to permanently remove the areas outside the focus area from consideration, then NRCan finds it to be unreasonably restrictive.

NRCan believes it is important to consider offshore wind development beyond a 10-year outlook. It is possible that the first offshore wind projects will be under construction, or commissioned, in the early 2030s, but that this would likely only mark the beginning of offshore wind development in the Canada-Newfoundland and Labrador Offshore Area. If the area being assessed and considered is limited at present, this could prematurely limit consideration of where offshore wind projects could occur in the future. With the rapid increase in offshore wind deployment over the preceding decade, as well as the related advances in turbine size and output, it is possible that technology may be developed which could address the challenging factors identified by the Committee. At present, floating wind projects are being proposed and some are under development, in Scotland and Norway. In at least one jurisdiction, Finland, there is work underway to allow for offshore wind energy projects in icy conditions.

The Regional Assessment will have greater long-term value if the Committee identifies the conditions across the Study Area that influence the varying degrees of suitable areas for offshore wind, and why, as opposed to excluding areas from the Study Area. Noting that certain offshore areas are less suitable for offshore wind at present, and why, will provide Canadians with a more comprehensive picture of



considerations for offshore wind than no information at all for these less suitable areas. Identifying conditions for consideration across the entire Study Area will provide Canadians with a baseline of information around Newfoundland to compare to over time.

A baseline cataloguing of the conditions and a degree of suitability across the Study Area in 2024 will enable governments and Canadians to focus on specific conditions to analyze in the future, in determining if areas that are less optimal in 2024 are more optimal in the future. This will add long-term lasting value to the Regional Assessment in the years and decades ahead. Conversely, excluding these areas from the Study Area now will require governments to begin this work again in the future, without identified conditions and considerations to focus on and compare to.

If there are data gaps in the areas outside of the proposed Focus Area and more information is required to make a determination as to their suitability, NRCan would suggest that instead of excluding those areas at this stage, that the Committee make recommendations in its Final Report to governments with regards to areas in which data collection should occur.

Lastly, reducing the size of the area being assessed for potential offshore wind development would also provide fewer options for potential offshore wind development and heighten the risk of conflict with current ocean-users.

**Describe or identify on a map, any other general areas you think should be included:**

In general, some of the conditions cited may change over time, such as the location and amount of icebergs and sea ice, thus making portions of the currently proposed Study Area, to be excluded from the Focus Area, more suitable in the future. This may be the case, in particular, around the southeast coast of Newfoundland spanning from Placentia Bay to Conception Bay.

From a geological and bathymetric perspective, the “Straight Shore” (Musgrave Harbour to Cape Freels, District 8) merits remaining in consideration. Similarly, the south shore of Avalon also should remain in consideration, for similar reasons. There are suitable sediments and water depths to support gravity base foundations in these regions, which match the ice-resistant foundation type tested and deployed in Finland in the Baltic Sea.

Despite the specific areas referenced above as examples, NRCan suggests that the Regional Assessment Committee maintain the present Study Area at this time.

**Provide feedback on the constraints and parameters used to select the focus area:**

The 300-metre water depth consideration is acceptable, in that development of wind resources in shallower waters, in particular those suitable to fixed bottom foundations, will be more economical. However, consideration of greater depths should be included as there are established lease areas in the United States (Oregon and California) that exist in water depths that are mostly (if not entirely) greater (deeper) than 300 m.

More geological context can be found in the following references:

1. Eamer et al. 2020 – <https://doi.org/10.4095/326514>.  
This study provides a detailed look at the surficial geology and available supporting resources for the majority of this focused region, as well as the regions discussed for inclusion above.
2. Eamer et al. 2021 - <https://doi.org/10.1016/j.csr.2020.104297>



This study compares the surficial geology of Atlantic Canada with that of other offshore wind-producing regions. A detailed look at Baie St. George, (included in the focus area) is provided.

3. Information on Pacific USA floating wind leases - <https://www.boem.gov/renewable-energy/state-activities>
4. King 2014 - <https://doi.org/10.4095/295113>  
In this study and provided dataset, the thickness of Quaternary cover of the southern portion of the focussed region is provided. This is important for considering the type of fixed bottom foundation in this region.
5. Josenhans 2007 - <https://doi.org/10.4095/222864>  
This atlas of seabed geology for the Gulf of St. Lawrence is essential for determining the suitability for foundations along the western portions of the focussed area.

NRCan would like to thank the Committee for the opportunity to provide feedback on the proposed Focus Area. Please reach out to Natalie Robinson ([Natalie.Robinson@nrca-nrcan.gc.ca](mailto:Natalie.Robinson@nrca-nrcan.gc.ca)) if you have any questions, comments or concerns.

Kind regards,

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