

# Committee Decision Regarding the Focus Area for the Regional Assessment of Offshore Wind Development in Newfoundland and Labrador

November 7, 2023

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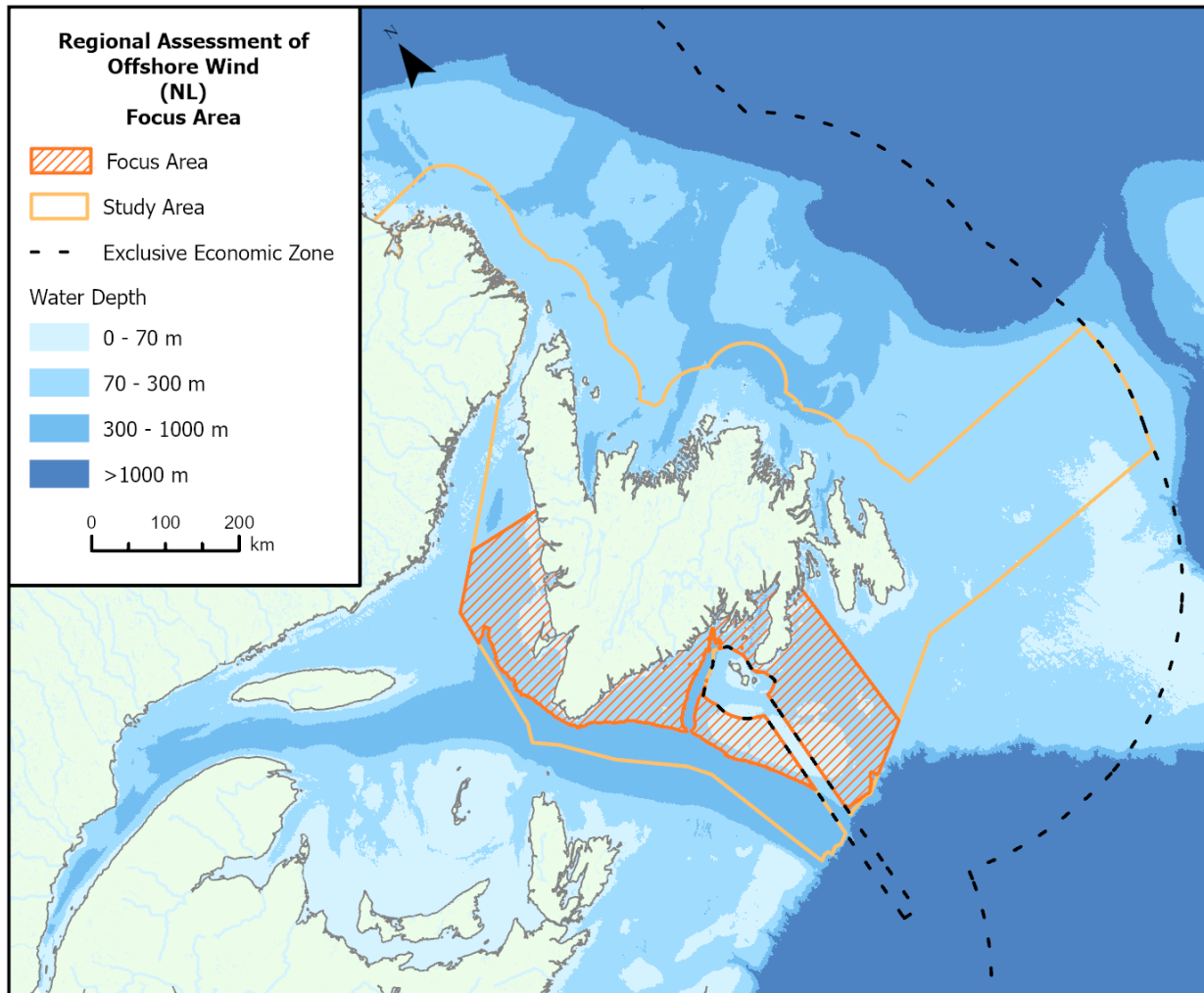
Committee Decision Regarding the Focus Area for the Regional Assessment of Offshore Wind Development in Newfoundland and Labrador

## Committee Decision

The Committee for the Regional Assessment of Offshore Wind Development in Newfoundland and Labrador (the Committee) is prioritizing the remainder of their work within the Focus Area shown in Figure 1.

**Figure 1.**

*Focus Area for the Regional Assessment of Offshore Wind Development in Newfoundland and Labrador*



Water Depth data from: GEBCO Compilation Group. (2023). *GEBCO 2023 Grid*. [Dataset] (doi:10.5285/f98b053b-0cbc-6c23-e053-6c86abc0af7b)

Focus Area delineated by the Committee, using data from:

GEBCO Compilation Group. (2023). *GEBCO 2023 Grid*. [Dataset] (doi:10.5285/f98b053b-0cbc-6c23-e053-6c86abc0af7b)

International Ice Patrol. (1995). *International Ice Patrol (IIP) Iceberg Sightings Database, Version 1, 2002-2021*. [Dataset]. Boulder, Colorado USA. National Snow and Ice Data Center. <https://doi.org/10.7265/N56Q1V5R>. Date Accessed 10-31-2023.

### Legend/Légende

Regional Assessment of Offshore Wind (NL) Focus Area

Focus Area

Study Area

Exclusive Economic Zone

Water Depth

L'évaluation régionale de l'exploitation de l'énergie éolienne extracôtière (TNL) Le secteur d'intervention

Le secteur d'intervention

Zone d'étude

Zone économique exclusive

Profondeur d'eau

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The Committee selected the Focus Area based on feedback received, as well as additional information gathered since initially proposing the Focus Area for public feedback in August 2023. The Committee has determined that **the Focus Area is where offshore wind development (OSW) interest is more likely in the foreseeable future.** The Committee interprets foreseeable to mean there is evidence available now showing OSW is feasible (i.e., technically and economically possible) and likely. The Committee has also determined a precautionary approach should be applied to OSW development where icebergs may be present.

The Focus Area prioritizes where work under the Regional Assessment of Offshore Wind Development in Newfoundland and Labrador (the RA) is most needed at this time. The Committee continues to conduct the assessment (i.e., present information on existing conditions and consider potential impacts of OSW) within the Focus Area. **The Committee is not saying OSW should occur throughout the entire Focus Area, nor is the Committee saying that OSW should not occur at all outside the Focus Area.**

## Feedback on the Proposed Focus Area

The Committee announced a Proposed Focus Area for public feedback on August 17, 2023. The Proposed Focus Area includes portions of the Study Area set out in the [Agreement to Conduct a RA of Offshore Wind Development in Newfoundland and Labrador](#) (the Agreement). The Committee identified the Proposed Focus Area based on a review of OSW technologies in other jurisdictions and potential technical and economic constraints to OSW in the Study Area, such as icebergs and water depths. The Committee welcomed written comments on the Proposed Focus Area until September 22, 2023. Participants provided comments on the [Canadian Impact Assessment Registry](#) (the Registry) and via email to the RA inbox ([OffshoreWindNL-EolienneExtracotiereTNL@iaac-aeic.gc.ca](mailto:OffshoreWindNL-EolienneExtracotiereTNL@iaac-aeic.gc.ca)). The Committee also held virtual public and Advisory Group sessions on the Proposed Focus Area. The Committee notified the public of these engagement opportunities by posting on the Registry ([Proposed Focus Area – We Request your Feedback, Impact Assessment Registry](#)) and via email.

Overall, forty-five participants submitted written feedback and fifty-four participants attended public sessions (held on September 12, 2023). Participants included OSW developers, participants from other industries, fisheries, environmental and research groups, federal and provincial departments and agencies, a member of Parliament, union representatives, Indigenous communities and organizations, municipal citizen's groups and individual members of the public. The Committee held sessions with the Indigenous Knowledge, Fisheries and Other Ocean Users, and Scientific Information and Community Knowledge Advisory Groups on September 14, 18, and 19, 2023, respectively. Attendees included three Indigenous Knowledge Advisory Group members, 9 Fisheries and Other Ocean Users Advisory Group members, and twelve Scientific Information and Community Knowledge Advisory Group members. Members of the public also attended the Fisheries and Other Ocean Users, and Scientific Information and Community Knowledge Advisory Group sessions. Attendees included industry, fisheries, environmental and research groups, federal and provincial departments/agencies, union representatives, Indigenous communities and organizations, municipal citizen's groups and individuals.

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The following summarizes feedback received on the Proposed Focus Area. A more detailed, non-attributional summary of written submissions is available in Annex I of this document.

- Support for the Focus Area and/or Focus Area Approach.
- There are potential consequences of prioritizing a Focus Area; the Committee should assess the original Study Area.
  - It limits the scope of the cumulative effects assessment undertaken; and
- The Minister has discretion to exclude OSW projects in the RA Study Area from future impact assessments following completion of the RA. If the Committee does not assess the entire Study Area, any OSW projects proposed outside the Focus Area would not be excluded from future impact assessment.
- Varied agreement/disagreement with criteria used to select the Focus Area, including:
  - Excluding areas based on presence of icebergs and water depths is unjustified;
  - Using icebergs as a constraint is valid but the Committee should not consider depth as a constraint;
  - The Committee should consider future technologies and conditions when defining a Focus Area; and
  - Support for applying a precautionary approach.
- Recommendations to include or exclude specific areas in the Focus Area, and to identify additional Focus Areas;
- Recommendations for additional or alternative criteria that should be used to define the Focus Area, such as:
  - Grid integration, minimum distance from shore, and potential for eventual use;
  - Pack ice;
  - Important ecosystem areas including but not limited to Marine Protected Areas and critical habitats; and
  - Important fishing areas, displacement of fishers, and related economic impacts.
- Recommended information sources, experts to contact, additional information and data and analysis.
- Dissatisfaction with engagement.
- Concerns and information about potential impacts of OSW on environmental, social, health and economic components within the Focus Area.

Throughout October 2023, the Committee also engaged experts to validate their work. The Committee reached out via email to OSW developers and contacts with experience in ice management, and/or monitoring and data in Atlantic Canada (Table 1). The experts were those RA participants and Advisory Group members recommended during the public feedback period, and some experts were already participants in the RA. The Committee also contacted Marine Renewables Canada to request contact information for OSW developers with potential interest in Newfoundland and Labrador (NL). Some OSW developers were already participants in the RA process while others had not yet been engaged by the Committee. The Committee contacted these OSW developers to request meeting to discuss areas of potential interest in NL

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**Table 1.** Meetings with expert parties about the RA Focus Area. The Committee also requested to meet with ABO-Wind, Everwind Fuels, BP, Equinor, EDF, SSE, SBM-Offshore, Hexicon, DP Energy. The Committee held meetings with all parties who responded to their request.

Date	Expert Parties	Feedback Summary
October 17, 2023	<ul style="list-style-type: none"> <li>• Wood</li> <li>• Rhenus Logistics</li> <li>• Environment and Climate Change Canada (ECCC)</li> <li>• Meteorological Survey of Canada, ECCC</li> <li>• AECOM</li> </ul>	<ul style="list-style-type: none"> <li>• Regarding icebergs, consider data over the past fifty years and use the National Research Council’s Iceberg Sighting Database. A twenty-year period may not be reflective of future conditions.</li> <li>• We do not have the science to support notable change in icebergs over the next ten to twenty years because a lot of data is based on opportunistic surveying. Depending on your risk tolerance, we advise planning for extremes.</li> <li>• Icebergs and sea ice are both important considerations and will impact turbines differently.</li> <li>• From an environmental risk tolerance perspective, iceberg collisions with turbines will not have the same level of impact as iceberg collisions with oil and gas platforms.</li> <li>• Examples of vessel strikes in Europe may provide some insight on the impacts of collisions with icebergs. In these cases, you see damage to foundations but no examples of turbines toppling.</li> <li>• Optimal operations &amp; maintenance conditions with a “Walk-to-Work” system are sea states with maximum 5-6 m waves. Sea state plays a bigger role than visibility.</li> <li>• Given the pace at which OSW technology is advancing, considering technical aspects such as depth, icebergs and economics may be better left to developers.</li> </ul>
October 18, 2023	<ul style="list-style-type: none"> <li>• Atlantic Canada Offshore Developments</li> <li>• Copenhagen Infrastructure Partners (CIP)</li> </ul>	<ul style="list-style-type: none"> <li>• Support Committee’s approach to defining a Focus Area and agree icebergs and water depth are major considerations for developers. Substrate type is also an important constraint when considering investment and development areas.</li> <li>• OSW development interest in areas with icebergs is highly unlikely in the near future. Developers are considering foundations capable of withstanding pack ice but do not currently intend to operate in areas where icebergs are present.</li> <li>• Advise a more restrictive depth constraint be used to select the Focus Area. OSW development interest in Atlantic Canada will likely focus on fixed technologies in the next 5-10 years (&lt;70 m). While floating OSW can be deployed in deeper waters, fixed technologies are more economical. The only examples of full-scale floating projects have significant financial subsidies. Floating technologies are not currently commercially viable.</li> </ul>
October 18, 2023	<ul style="list-style-type: none"> <li>• Department of National Defense</li> <li>• eDNatec</li> <li>• C-CORE</li> <li>• National Research Council</li> <li>• ExxonMobil</li> </ul>	<ul style="list-style-type: none"> <li>• Committee should not consider physical and technical constraints. This should be considered by OSW developers and engineers.</li> <li>• Consider more than 20-years of iceberg data. Consider the probability of icebergs in an area, size of icebergs and the success of iceberg management to date for those types of icebergs.</li> <li>• The idea of using OSW to offset emissions in the current offshore oil and gas industry was brought forward.</li> <li>• Assuming icebergs are a threat to offshore development is not valid. The offshore oil and gas sector has been managing and monitoring icebergs for years.</li> <li>• Recommendation to review: <a href="https://insight.oilconl.com/ReportViz/Index">https://insight.oilconl.com/ReportViz/Index</a></li> </ul>
October 25, 2023	Northland Power	<ul style="list-style-type: none"> <li>• It is helpful for the RA to set some parameters for the Focus Area on technical constraints without being prescriptive.</li> <li>• Previous site experience allowed us to avoid ice conditions, but heavy ice conditions are a challenge as it limits year-round access for operations and maintenance.</li> <li>• Nothing we’ve heard to date deters us from developing OSW in NL, but we are prioritizing NS as an area of interest first.</li> </ul>
October 26, 2023	Simply Blue Group	<ul style="list-style-type: none"> <li>• Committee agreed to keep meeting discussion <a href="#">confidential</a>.</li> </ul>

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## Key Analysis and Considerations

The Committee reviewed all information, data, and views participants provided on the Proposed Focus Area. Some key analysis and considerations are described here. Annex I presents a more detailed summary of the Committee's response to feedback.

The Committee also received information and heard concerns during this process about potential impacts of OSW to environmental, health, social and economic components, and key locations for various RA components. The Committee values this information and will continue assessing these topics over the course of the RA, within the Focus Area.

### Validity of Assessing a Focus Area

Some reviewers did not support the Focus Area approach and asserted the Committee should assess the Study Area identified in the Agreement. The Committee believes defining a Focus Area is reasonable, and beneficial in consideration of the required RA outcomes and the Committee's Agreement.

Regarding RA outcomes, one of the goals of the RA is to inform and improve future OSW licencing (Agreement, Section 1.1). To achieve this goal, the Committee intends to provide recommendations about areas that, based on the Committee's work, should or should not be considered for licencing at this time, or that could be considered in the future, subject to certain conditions. Defining a Focus Area brings the Committee one step closer to this objective.

Regarding their Agreement, the Committee understands sections 1.4 and A1.6 of their Agreement to indicate parts of the Study Area may not support OSW and that the Committee could focus efforts in areas which are most likely to see future development interest.

Section 1.4 of the Agreement states:

"The Study Area comprises portions of the Offshore Area where future offshore wind development activities may be technically and economically feasible, based on current and foreseeable technologies. It does not include or exclude specific locations or features based on potential environmental, health, social or economic effects, in order to allow the regional assessment to provide a complete and fulsome analysis of these issues across this region, to inform future decision-making. For greater clarity, the inclusion or exclusion of specific portions of the Offshore Area in the Study Area does not reflect whether particular locations will or should be subject to future offshore wind development activities.

The Study Area therefore comprises the geographic region within which the regional assessment will help inform future decisions around whether particular locations may be subject to future licencing processes for offshore wind development activities, as well as the impact assessments of any such development activities" (p. 5).

Section A1.6 paragraph e) of the Committee's Agreement further allows the Committee to:

"focus [their] work on areas which are most likely to see future development interest, based on technical and economic factors" (p. 13).

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### Constraints and Data used to Define a Focus Area

The entire Study Area was considered in the determination of the Focus Area. The Committee reviewed several considerations that could influence OSW development interest throughout the Study Area. As a starting point, the Committee decided to use physical constraints to define a priority area where impacts on other components would be investigated in more detail. Of the physical constraints reviewed (e.g., wind resource, subsea geology, sea ice, and wave height), the Committee found icebergs and water depth were likely among the most limiting for foreseeable OSW development in NL. Not discounting the importance of other physical constraints, the Committee used iceberg presence and water depth to define the Focus Area<sup>1</sup>.

Regarding icebergs, no OSW farms currently operate or have been demonstrated to safely operate in areas with icebergs. Some work has been completed to understand the dynamics of ice loads (including pack ice and icebergs) on OSW (Aker Arctic, N.D.; Eranti et al. 2011; Hammer et al. 2023; Fuglem et al. 2022; King et al. 2022; Wang et al. 2022). Regarding these technologies, few projects with foundations built for sea ice are in operation or planned, including the Tahkoluoto wind farm and expansion in the North Sea. The initial project was piloted in 2010 and completed in 2017 as the world's first OSW farm to encounter frozen sea conditions. A demonstration project for a different foundation type, built for deeper waters, is to be implemented in the same area between 2023-2026 followed by the construction of the wind farm extension (The Maritime Executive, 2023). Research on turbine-iceberg interaction is also advancing but work to date is theoretical and based on modelling (Fuglem et al. 2022; King et al. 2022). The Committee is therefore of the view that a precautionary approach should be taken whereby commercial OSW development should not be allowed in regions where icebergs could be present, until demonstration projects provide proof of concept. The Committee has not taken the same stance on areas subject to sea ice at this time, given this technology is further developed.

Regarding water depths, the deepest operating turbine to date is the Hywind Tampen project, in full operations since summer 2023 at depths up to 300 meters (Equinor, 2023). Following this project, deepest floating turbines include the Tetraspar Demonstration Project at a 200-meter test site, and other pre-commercial or demonstration projects at depths no greater than 125 meters (Stiesdal, ND; ABSG Consulting, 2021). Though technically possible, discussions with OSW developers to date (see Table 1 above) suggest floating options may not be commercially feasible at this time and sites suitable for more economical, fixed turbines or concrete gravity-based structures (tested to withstand pack ice) are preferred in NL. Fixed turbines are currently suitable to depths up to 60 meters (ICF, 2020; Tang and Kilpatrick, 2021). The Committee will continue assessing impacts in areas with waters not exceeding 300 meters as demonstrations show they are technically feasible with floating turbines.

In order to complete the constraints analysis, the Committee used data from the Global Bathymetric Chart of the Oceans, GEBCO 2023 and the International Ice Patrol Iceberg Sighting Database Version 1 (IIP), showing sightings from 2002-2021. The Committee also reviewed data from the National Research

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<sup>1</sup> The Committee continues to consider other potential effects of the environment on OSW turbines (as required in A2.4 of the Committee's Agreement) within the Focus Area.

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Council of Canada’s Iceberg Sighting Database<sup>2</sup> and across a longer time period. The Committee found inclusion of such data only served to reduce their Focus Area further, and concluded proceeding with the IIP 2002-2021 data would be sufficient for their purposes.

### Other Key Areas Recommended

Feedback on the Proposed Focus Area included recommendations to include or exclude specific areas. For example, participants raised concerns about key fishing areas and protected areas. The Committee did not adjust the Focus Area based on these considerations because the Focus does not indicate the Committee recommends OSW occur anywhere throughout the Focus Area. Instead, the Focus Area is where the Committee will focus their detailed analysis for identifying potential areas for OSW licensing, and their detailed assessment of effects.

Feedback also suggested inclusion of sites around offshore oil and gas platforms. Work completed by Growler (2022) and Paulin et al. (2022) evaluate options for electrifying offshore oil and gas platforms and show OSW is being considered. However, both reports also present conclusions regarding challenges with icebergs and deep waters. In a Strengths, Weaknesses, Opportunities, and Threats analysis for OSW, Growler notes:

“While floating wind technology has improved, wind location sites for the current project are in very deep waters with high sea states and ice infestation. In general terms, these are conditions that push the current design envelope for offshore wind.” (p. 94).

Paulin et al. (2022) similarly states:

“To develop an economical ice resistant floating wind turbine foundation, additional research, engineering, and proof of concept work would need to be carried out.” (p. 10).

### Conclusions and Recommendations

Committee deliberations on whether to proceed with the Proposed Focus Area included in depth discussions about:

- the appropriateness of defining a Focus Area, in the context of the RA Agreement;
- whether presence of icebergs and water depth exceeding 300 meters are reasonable constraints to define the Focus Area;
- the specific iceberg datasets that should be used; and
- whether additional focus areas should be defined to include specific locations, such as existing and planned offshore oil and gas platforms, despite the presence of icebergs and deep waters.

The Committee revisited information on OSW from in other jurisdictions, and information and views provided by the public and expert parties.

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<sup>2</sup> The Committee reviewed data provided to them by the National Research Council, including, the NRC-PERD Iceberg Management Database, version 2019; NRC-PERD Iceberg Shapes Database, version November 2014; and the NRC-PERD Iceberg Sighting Database, version 2020 version.

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**Conclusion 1:** The Committee concluded defining a Focus Area is justifiable given the requirements and allowances in their Agreement and TOR, and that focusing their work where OSW development is most likely in the foreseeable future is favourable.

**Conclusion 2:** The Committee concluded while OSW technology is rapidly advancing to accommodate deeper waters and research and development for turbines in the presence of icebergs is a local priority, this remains a challenge for current technologies. The Committee concludes a precautionary approach should be exercised as work in these areas has not progressed to a degree where the Committee can confidently recommend full-scale OSW development in areas where these constraints are present.

**Conclusion 3:** Finally, the Committee concluded the IIP Iceberg Sighting Database with data from 2002-2021 provides a sufficient picture of icebergs in the region for the purpose of defining a Focus Area.

The Committee did not reach a consensus on Conclusion 2. One of five Committee members concluded that the Focus Area should be expanded to include areas in proximity to the four oil producing platforms located in the Jeanne D'Arc basin in water depths of approximately 80 m. The Committee member also concluded that any OSW development within this area would be subject to detailed project-level assessments which would provide a risk assessment of ice encounters within the area and information on ice management planning, including a history of ice management by oil producing operators and how ice management would include the OSW operations.

## Recommendations

The following recommendations pertain to areas within the Study Area but outside the Focus Area.

- 1) The Committee recommends regulators exercise a precautionary approach and do not recommend licencing areas for OSW development where icebergs may be present until the potential implications of collisions with icebergs are better understood, and demonstration projects provide proof of concept.
- 2) The Committee recommends regulators revisit areas where waters exceed 300 meters when and if developers indicate interest in these areas.
- 3) The Committee recommends continued research and development regarding OSW turbines under these conditions.
- 4) The Committee recommends continued research and development be prioritized in areas where current/proposed offshore oil and gas platform operators have confirmed that they are considering OSW as an option for offsetting emissions. These areas will not be given further consideration in this RA as the Committee has no indication of any such projects (current or proposed).
- 5) The Committee recommends the Minister of Environment and Climate Change does not exclude proposed OSW projects within the RA Study Area from future project-level impact assessments, including at sites beyond the Focus Area.

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## Annex I – Summary of Feedback Received

The table below provides a summary of written submissions received during the Proposed Focus Area feedback period (August 17 – September 22, 2023). Full submissions are available on the RA Registry [site](#), subject to the Committee’s [confidentiality procedures](#).

Summary of Comments	Committee Response
<p><b>The Committee should/should not define the Proposed Focus Area.</b></p> <p>Assess the original Study Area for the following reasons:</p> <ul style="list-style-type: none"> <li>• The RA will have greater long-term value if it provides a baseline cataloguing of conditions and assesses suitability of OSW across the Study Area. Excluding areas from further study will require governments to begin this work again;</li> <li>• It is unknown when and if another RA would take place to scope areas not included in this initial study. We encourage the Committee to avoid limiting that area now;</li> <li>• Developments outside the Focus Area will be at a disadvantage for not having the same data collection, knowledge creation and assessment consideration as other areas;</li> <li>• Reducing the Study Area will communicate a confusing message to prospective developers and investors on what opportunities exist for OSW development;</li> <li>• Reducing the size of the area being assessed for potential OSW development would provide fewer options for potential OSW development and heighten the risk of conflict with current ocean-users;</li> <li>• The Committee’s mandate does not task them with licencing decisions or with excluding certain areas from possible licencing.</li> </ul> <p>In general, it should be up to future developers/ investors to determine what's feasible in terms of water depths, wind speed and ice prone areas.</p>	<p>The Committee’s Agreement and TOR allows them to focus the RA where OSW development interest is most likely. The Committee met with OSW developers throughout October 2023 to discuss the validity of their Focus Area approach, and developers confirmed shallower areas without icebergs would be prioritized in the foreseeable future.</p> <p>The Committee’s process does not involve licencing decisions. The Governments of Canada and NL are currently planning a joint management regime for offshore renewable energy in NL. The forthcoming regulatory framework will dictate the process for licencing.</p> <p>One of the goals of the RA is, however, to inform and improve future licencing. To achieve this goal, the Committee intends to recommend areas within the Focus Area for licencing, after considering potential impacts of OSW on environmental, social, health and economic components. The Committee recommends locations outside the Focus Area not be proposed for licencing at this time.</p>
<p>If the purpose of this Focus Area is to permanently remove the areas outside the Focus Area from consideration, then we find it to be unreasonably restrictive.</p>	<p>The Focus Area approach prioritizes where the Committee will scope their work under the RA process. The Committee recommends regulators revisit areas for OSW as technologies advance.</p>
<p>The Proposed Focus Area allows for a more informative assessment.</p> <ul style="list-style-type: none"> <li>• Expert departments supporting the assessment can concentrate their analysis on areas of greatest relevance.</li> <li>• A Focus Area would help focus resources on the most prospective OSW areas around the province. The Study Area is too large for an informative assessment to be completed with the available timeframe.</li> </ul>	<p>The Committee acknowledges concerns about the geographic scope and timeframe for completing the RA. The Committee agrees an assessment of a Focus Area is a manageable scope. In October 2023, the Committee also submitted a letter to the Ministers requesting amendments to their</p>

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	Agreement to address scope and timeline challenges. The request is publicly available on the RA Registry site <a href="#">here</a> .
Many areas within the full Study Area will be excluded from cumulative effects assessments and other important assessment measures that were intended for this RA.	The Committee intends to recommend future regional assessments or other similar studies be carried out in areas excluded from the Proposed Focus Area before such areas are opened for OSW development.
The Committee's recommendations will not limit OSW developments to the areas or sites deemed most suitable by the Committee. It is crucial that the Committee develop formal recommendations indicating future RAs or other similar studies be carried out in areas excluded from the Proposed Focus Area before such areas are opened for OSW development. We understand the Committee is already contemplating such recommendations, from our participation in public engagement sessions and Advisory Group meetings.	As indicated, the Committee is considering such recommendations.
Following consideration of a RA, the Minister of Environment and Climate Change has the discretion to create a regulation allowing for the exclusion of OSW projects from impact assessment, if specific conditions are met. It is important for the Committee to recommend that, in a scenario where regulations are used to exclude OSW developments from impact assessments, that a condition for exclusion must be that a future RA or other similar studies be carried out in any areas originally excluded from the Proposed Focus Area.	The Committee recommends the Minister of Environment and Climate Change does not exclude proposed OSW projects within the RA Study Area from future project-level impact assessments, including at sites beyond the Focus Area.
<b>Feedback about the approach and criteria used to define the Focus Area.</b>	
The Committee seems to be identifying areas where OSW would cause serious or even irreversible damage to the environment, taking note that OSW development in Canada is a new industry, and is thus taking measures to prevent environmental degradation. We support the application of a precautionary approach in this manner. This approach aligns with the purposes and requirements of the <i>Impact Assessment Act</i> and has received support from courts across Canada. We encourage the Committee to think about additional ways that a precautionary approach can shape the Committee's analysis of environmental and socio-economic factors within the Proposed Focus Area and inform its conclusions and recommendations.	As indicated, the Committee is applying a precautionary approach. The Committee recommends regulators exercise a precautionary approach and do not recommend licencing areas for OSW development where icebergs may be present until the potential implications of collisions with icebergs are better understood, and demonstration projects provide proof of concept.
The Focus Area should include deeper waters. 80% of the world's OSW potential is in depths of 60+ meters where floating technologies would be required. Floating OSW technologies are suited to water depths up to 1000+ meters and there are established lease areas in the United States (Oregon and California) that exist in water depths that are mostly greater than 300 meters. The technology continues to evolve to help unlock deep water sites.	The deepest operating OSW turbine to date is the Hywind Tampen project located in an area with depths up to 300 meters (Equinor, 2023a). Lease areas at depths greater than 300m have not been established in Oregon. The Bureau of Ocean Energy Management identified draft energy areas for public review in August 2023. These areas are in the Coos Bay Call Area and Brookings Call Area where depths range from 120-220m and 125-340m respectively (BOEM, 2023). The Committee recognizes some lease areas, including deeper waters, were awarded in California in 2022. These are the first floating OSW leases issued in the United States. Projects in these lease areas are in

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	<p>early development stages and are some developers' first-ever awarded commercial scale floating wind projects (Perkins Coie, 2022; Golden State Wind, 2023; Equinor, 2023b; Energy Watch, 2022; RWE, 2023; BOEM 2022). Further, based on discussions with OSW developers expressing interest in NL, The Committee understands areas in deeper waters would not be prioritized in NL in the foreseeable future. The Committee recommends regulators revisit areas where waters exceed 300-meters when and if developers indicate interest in these areas.</p>
<p>It is important to consider OSW development beyond a 10-year outlook. With the rapid increase in OSW 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.</p>	<p>Focusing efforts where OSW is expected in the foreseeable future aligns with the Agency's approach to reviewing requests for RAs. The <a href="#">Operational Guide: Requesting a Regional or Strategic Assessment under the Impact Assessment Act</a> indicates the Agency considers whether a RA could inform future federal impact assessments when making recommendations about proposed RAs, and specifically asks requesters to answer, "is large scale development, including potential designated projects under the Act, expected in the next 5-10 years in the region?"</p>
<p>The Committee should reduce the Focus Area further. By including areas of water depth up to 300 meters, the Proposed Focus Area implies that floating OSW will be considered for development in the next decade which is unrealistic. As a global pioneer in floating OSW with a multi-gigawatt portfolio of floating projects under development, we hold strong conviction about the eventual technical, economic, and environmental feasibility of floating OSW. However, in jurisdictions where fixed bottom feasible seabed remains available, the cost premium, technical complexity, and longer schedule lead-time of floating OSW places it at a significant disadvantage. Currently, the economical and technically feasible water depth limit for fixed bottom OSW is approximately 65 meters. NL have considerable shallow seabed areas under this threshold available that would enable fixed bottom OSW development. Furthermore, these seabed areas will accommodate more OSW capacity than required to serve the industrial load than can be reasonably expected in the next decade.</p>	<p>The Committee notes the increased likelihood of deploying fixed-bottom turbines and the additional depth constraints this imposes. The Committee proceeded with including areas with depths up to 300 meters in their Focus Area because current technologies demonstrate this capability.</p>
<p>The Committee seems to have narrowed its review to present day OSW turbine experience in sea-ice prone regions (not icebergs) as opposed to considering technology limitations. This was short sighted since presently there has been no requirement for such developments and has led to a false perception of the term "harshness" used to describe our region. Excluding areas based on iceberg risk is not adequate and is based on an incomplete data review with no local environmental context. Depending on the location, iceberg occurrence may not be a design constraint, as documented in King et. al. (2022), an award-winning best paper at OTC 2022. On the premise of safety, the probability of iceberg impact with a single turbine is so low that it may not need further consideration. Wind turbines are already designed for loads such as waves and ship impacts, so ice only becomes a consideration once the ice loads exceed these other</p>	<p>No OSW turbines have been tested or deployed in areas with icebergs to date. The Committee is exercising a precautionary approach by recommending full-scale OSW does not proceed in areas with icebergs until demonstration projects provide proof of concept. The Committee is not suggesting these areas should be excluded indefinitely but is strategically focusing its work</p>

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<p>loads. A preliminary analysis of iceberg impact loads corresponding to an acceptable return period (i.e. 50 years) can be conducted for the entire region using the approach outlined in King et al. (2022). Further, King and Turnbull (2022) show how conditions are changing and illustrate a reduction in seabed risk by an order of magnitude (10x) over the last 20 years, a trend that according to experts will continue. Much of the required data is already documented in the Insight database, freely available on-line (Turnbull et al., 2023), which covers the entire offshore NL region.</p>	<p>where OSW development is proven possible and most probable to occur.</p> <p>The Committee recommends continued research and development regarding OSW turbines under these conditions.</p>
<p>Data on iceberg sightings go back to the 1600s and come from a variety of sources. Some cut-off has to be made on which years to use; I note that for the initial Focus Area the last 20 years are used – it would be good to compare with iceberg sighting locations for earlier years, if it has not already been done. Furthermore, the Focus Area analysis only included icebergs with size classification of “medium” and larger – but even bergs classified as “small” are likely to be much larger than what an OSW turbine could handle in terms of structural loading.</p>	<p>In order to complete the constraints analysis, the Committee used data from the International Ice Patrol Iceberg Sighting Data Base Version 1 (IIP), showing sightings from 2002-2021. The Committee also reviewed data from the National Research Council (NRC) of Canada’s Iceberg Sighting Database and across a longer period. The Committee found inclusion of such data only served to reduce their Focus Area further and concluded proceeding with the IIP 2002-2021 data would be sufficient for their purposes.</p> <p>Regarding the inclusion of icebergs classified as medium or larger, this decision was made in consideration of the following factors:</p> <ul style="list-style-type: none"> <li>• Some modeling done by c-core seems to indicate floating structures can withstand impacts of smaller icebergs.</li> <li>• In the IIP database, icebergs that did not have size estimated at the time of sighting were classified as medium, therefore the category does contain some icebergs from categories below medium.</li> <li>• Given the information gathered from developer meetings it appears that they currently have no intention of placing wind farms in iceberg prone waters or placing a high priority on development of the technology. The current economic crises in the industry also will prevent moving this technology forward or provide a business case for development in iceberg prone waters.</li> </ul>

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Locations and amount of icebergs may change due to climate change. This may be the case, in particular, around the southeast coast of NL spanning from Placentia Bay to Conception Bay.	The Meteorological Service of Canada (Environment and Climate Change Canada) indicated data gathered on iceberg sightings in NL is opportunistic, and analysis of the data does not indicate any clear trends of change in iceberg locations or amount in the next several years.
For the “Wave Height” constraint, we suggest that – if not already factored in – the wave height analysis be mindful of new trends in increasing severe storms in the Northwest Atlantic, which are believed by many scientists to be fueled by climate change.	The Committee has proceeded to define the Focus Area based on icebergs and water depth only.
The constraints and parameters used to determine the Proposed Focus Area is generally sound. We also agree with the Proposed Focus Area because other factors should exclude offshore Labrador as a site for future OSW, including Marine Protected Areas, Ecological Reserves, ecologically or biologically significant areas (EBSAs), salmon rivers, important estuaries, vessel traffic corridors that are essential for mobility between, recreational use areas, and important landscapes. We understand these will be considered during subsequent stages of the RA, and we intend to provide detailed comments concerning those factors and more at the appropriate time in the process.	The Committee acknowledges the importance of other factors when considering areas for OSW development. The Committee will consider those listed, and potential impacts on other environmental, social, health and economic components over the course of the RA and before providing further recommendations relevant to licencing.
We would like to express our support for the Committee's decision to employ a precautionary approach in this assessment. It is important that this process considers the long-term health and integrity of our marine environment, and we strongly encourage the Committee to continue this approach and exclude existing and proposed Marine Protected Areas (MPAs), SARA Critical Habitats and other important ecological areas from the Proposed Focus Area.	The Committee will continue considering these factors as work on recommendations for licencing areas progresses.
The Committee should consider the implications of wind integration into the existing grid and potential use of OSW on a Focus Area. Potential uses include domestic electricity, electrification of offshore oil and gas facilities, onshore hydrogen production and offshore hydrogen production. The selection of regions for addition to or removal from the Proposed Focus Area should also be based on including multiple sites, cumulative effects, knowledge acquisition for current and foreseeable technologies, emissions reductions, economies of scale, and mainland interconnection.	The Committee’s Agreement defines OSW activities and indicates It does not include the associated and eventual use of the electricity produced by that OSW power generation facility. On May 31, 2023 the Committee met with the Agency to request clarification on the required scope of the RA. The Agency clarified the eventual use of OSW is outside of the Committee’s scope.
<p>Some participants suggest the Committee consider other physical constraints. For example:</p> <ul style="list-style-type: none"> <li>● Consider wind resource suggested by the Global Wind Energy Atlas and other reanalysis data sources, icing conditions and resulting production loss, sea ice and completing a foundation feasibility study before recommending optimal areas for licencing.</li> <li>● Consider pack ice in the next iteration of the Focus Area. During winter, wind turbines off the northwest coast of NL will encounter high concentrations of sea ice. The sea ice is very dynamic in the region with active ridging.</li> </ul>	The Committee values this information and will continue their constraints analysis on the Focus Area to eventually finalize their recommendations for licencing areas. The Committee intends to recommend areas for licencing, within the Focus Area, in considerations of impacts to environmental, health, economic and social conditions. The Committee will also consider the effects of the environment on potential OSW, as set out in the Agreement.
Consider minimum distance from the coast, or minimum distance from particular areas of interest. Visual impacts from the coast are generally a concern, and many jurisdictions have addressed this with fixed minimum distances from shore or minimum distances from areas of interest (ie. Coastal communities, national parks, etc.).	As per their Terms of Reference, the Committee is considering potential impacts of OSW to visual aesthetics and viewscapes including measures to

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	address them. The Committee will consider buffer zones as a potential option.
<p>ECCC reviewed the Proposed Focus Area in light of the technical constraints and parameters identified by the Committee. They provided the following expertise:</p> <ul style="list-style-type: none"> <li>• Based on the MSC Wave Atlas Map, average annual wind speed would exceed 7 m/s at a height of 100 m</li> <li>• Results from the MSC50 hindcast dataset show limited locations within the Focus Area where wave height does not exceed 2 m 80% of the year</li> <li>• Disagree with the north-west boundary of the Focus Area if the absence of icebergs is a criterion for development. Data from IIP Iceberg Sightings database shows the presence of large and very large icebergs off the west coast of NL. Further, most of the sightings in the Focus Area are from this source come from a 2017 surveillance flight. We recommend to include the National Research Council (NRC) of Canada's Iceberg Sighting Database in your review. The NRC database includes IIP sightings as well as sightings from other sources (e.g., Government of Canada, offshore oil and gas industry). We also recommend you increase the 20-year period used for the analysis to a 50-year period. There is supporting evidence to consider a longer time-period as we do not see a notable decrease in the number of icebergs crossing 48N and long-term changes in the spatial distribution of icebergs is not well documented.</li> </ul>	<p>The Committee proceeded with defining the Focus Area based on icebergs and water depth only. Following ECCC's submission the Committee reviewed data from the National Research Council (NRC) of Canada's Iceberg Sighting Database and across a longer period. The Committee found inclusion of such data only served to reduce their Focus Area further and concluded proceeding with the IIP 2002-2021 data would be sufficient for their purposes.</p> <p>As per their Terms of Reference the Committee will continue to consider potential effects of the environment on OSW, such as sea state and significant wave height, within the Focus Area. Since initially proposing the Focus Area, the Committee understands 'Walk to Work' systems may accommodate greater significant wave height.</p>
<p>We understand the Committee is continuing to consider other factors to inform future planning, licencing and impact assessment processes. For continued consideration, we note:</p> <ul style="list-style-type: none"> <li>• the Focus Area overlaps with established ferry routes for Marine Atlantic Inc. between North Sydney, NS and Port aux Basques and Argentia, NL.</li> <li>• consider existing traffic separation schemes (TSS) (e.g. shipping lanes) in and around Placentia Bay.</li> </ul> <p>Transport Canada's continued participation will provide us an opportunity to comment and inform the RA at a later date, if necessary.</p>	<p>The Committee has requested transportation route buffers from Transport Canada, which they are actively looking into. The Committee will continue engaging with Transport Canada and other Federal and Provincial Authorities as required on their expert knowledge of their mandated subject matters.</p>
Does Committee intend to request the Ministers amend the Agreement to change the Study Area?	<p>The Committee does not intend to request the Ministers amend the Agreement to change the Study Area. The Committee has asked the ministers to confirm the Focus Area approach aligns with the RA Agreement. The Committee's request is publicly available <a href="#">here</a>.</p>
Based on public outreach to-date, we have learned that the Committee intends to carry out sequential constraints analysis to identify suitable areas for development as part of the RA process. This approach is valid, but we also recommend that the Committee considers simultaneous constraints analysis in addition to sequential analysis.	<p>The Committee recognizes the validity of both approaches. Currently, the Committee plans to continue using a sequential approach.</p>
The Committee's approach is antiquated and lacks details and references. The Committee should use / build upon the GIS tools developed for the RA of Offshore Oil Exploratory Drilling (the first RA) and OilCo NL. They declined ICI's offer to present their software and its use in EAs.	<p>The Committee appreciates that a static map may be viewed as antiquated. However, it allowed for a timelier publication of this information. Use of a static map at this stage does not mean the Committee is not considering other means of sharing information as the RA progresses. The</p>

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	<p>Committee is currently evaluating existing federal government open access systems for RA use. The Committee is aware of the tools consultants have developed for the local oil and gas industry. The Committee is also aware that the CNLOPB, not the Agency, is taking ownership of the tool developed for the first RA and incorporating that data and select functions into the CNLOPB's existing data hub. Unlike the Agreement for the first RA, the Agreement for this RA does not require development of a GIS. This Committee has not been directed by the Ministers to build upon the GIS tool developed for the first RA. The Committee declined the offer as the Committee felt it inappropriate to meet with a potential future service provider in the event the Committee held a procurement process for GIS / data services later in the RA process.</p>
Several commenters reviewed the Focus Area and indicated they have no comments or concerns.	Noted.
<b>Additional areas to include in the Focus Area</b>	
<p>The Proposed Focus Area is adjacent the Traditional Territories of the Mi'kmaq people of the Qalipu First Nation. Highest use includes from Bay of Islands south to Codroy Valley, and the Burgeo area on the southern shore. These areas should remain included in the Focus Area and the Committee should engage with QFN regarding appropriate buffering from the shoreline and development planning.</p>	<p>The Committee values Indigenous and community knowledge and is mandated to consider both in the RA. We welcome your input on appropriate buffers. We are planning in-person engagement in mid-November and have been in touch with QFN and other Indigenous groups to organize in-person meetings.</p>
<p>Unless an operator such as ExxonMobil will not require a license to develop OSW power (i.e. to support existing facilities) the Focus Area should be expanded to include offshore oil and gas areas. OSW could be used to electrify platforms and excluding these areas could delay OSW development for offshore electrification to at least 2040. By that time, global fossil fuel extraction will need to be highly decarbonized, and markets for emissions intensive hydrocarbons from NL may be less available and less lucrative., then the region must be expanded. A case could be made to include the Jeanne d'Arc region, prospective oil and gas areas of the Orphan Basin and Flemish Pass, and regions included in the insight (2022) database. There is also potential for a significant discovery at the Blue Jacket site off the southern tip of the Grand Banks, an area not even considered in the originally proposed study.</p> <p>Reference: Insight (2022). <a href="https://insight.oilconl.com/">https://insight.oilconl.com/</a>, Oil and Gas Corporation of NL (Oilco). Accessed August 29, 2023.</p>	<p>On September 28, 2023, the Committee requested clarification from the Impact Assessment Agency about requirements for impact assessments in these cases. The Agency's response is publically available on the RA's Registry site <a href="#">here</a>.</p> <p>The Committee has received no evidence from developers indicating they plan to use OSW to decarbonize oil and gas facilities and has not been presented sufficient evidence to prove it will be feasible in the foreseeable future, given the depth and iceberg conditions outside the Focus Area. The Committee understands the potential for this use</p>

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	<p>when technology advances and has recommended future work in those areas.</p>
<p>The Committee received several recommendations to include specific areas in the Focus Area:</p> <ul style="list-style-type: none"> <li>• Include the entirety of Placentia Bay and south to the limits of NL waters. These areas may have competitive OSW siting potential, with features including limited sea ice, competitive winds, and competitive water depth. Furthermore, this area could have potential proximity to hydrogen projects both on Burin Peninsula and near Come by Chance.</li> <li>• Given the high wind speeds and low bathymetry in the Grand Banks, we would like to suggest investigating this area further. Climate change may significantly reduce the risk associated with icebergs and based on experience in Europe, fishing community-related impacts might be lesser than anticipated.</li> <li>• 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.</li> <li>• The Focus Area should include coastline in and adjacent to Sandwich Bay and Sir Charles Hamilton Sound. These areas have nearshore ocean water depths that are sufficiently shallow (&lt; 50m) to permit fixed OSW turbines, iceberg sightings that are rare, mean wind speeds above 8 m/s at 80m hub heights and adjacent onshore areas that are accessible by road permitting siting of fabrication facilities and laydown areas.</li> <li>• Maritime Transmission Link and Labrador Island Transmission Link were both completed in 2018. A cluster of projects on the Western tip and around Stephenville would be most attractive considering proximity to transmission lines. Limited transmission availability also suggests necessity of hydrogen exports.</li> </ul>	<p>The Committee values these suggestions. Following meetings with OSW developers in October 2023, the Committee finds the Focus Area appropriately identifies areas of most interest and where the Committee should focus its continued work. The Committee recommends further research and development regarding OSW turbines subject to potential impacts of icebergs and in water depth exceeding 300 meters. The Committee recommends prioritizing this work where current/proposed offshore oil and gas platforms have confirmed that they are considering OSW as an option for offsetting emissions.</p>
<p><b>Suggested resources and expertise.</b></p>	
<p>Before finalizing a Focus Area, we recommend the Committee retain appropriate expertise from government and/or the private sector to:</p> <ul style="list-style-type: none"> <li>• review and summarize the literature pertaining to the potential effects of pack ice and icebergs on fixed and floating offshore wind turbines.</li> <li>• assist the Committee in finalizing the Focus Area and identifying appropriate mitigation measures based on expertise in the design and construction of offshore structures.</li> </ul>	<p>The Committee acknowledges advancements in research and development regarding the potential effects of pack ice and icebergs on OSW turbines. In October 2023, the Committee held additional Physical Constraints meetings and met with several OSW developers before finalizing the Focus Area. The Committee maintains a precautionary approach should be applied until demonstration projects provide proof of concept. The Committee may consider consulting parties with OSW design expertise when considering appropriate mitigation measures.</p>
<p>Feedback included the following references for Committee review:</p> <p>Bureau of Ocean Energy Management. (n.d.-a). Gulf of Maine Task Force Meeting—May 19, 2022. Retrieved September 29, 2023, from <a href="https://www.boem.gov/renewable-energy/state-activities/maine/gulf-maine-task-force-meeting-may-19-2022">https://www.boem.gov/renewable-energy/state-activities/maine/gulf-maine-task-force-meeting-may-19-2022</a></p>	<p>The Committee reviewed and considered all recommended information sources.</p>

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The Hibernia and Hebron Projects are conducting a joint R&D study to assess the potential wind resource and the feasibility of using wind generated power to supplement current power generation. The C-NLOPB 2022 emissions report ( <a href="https://www.cnlopb.ca/wp-content/uploads/emrep/emrep2022.pdf">https://www.cnlopb.ca/wp-content/uploads/emrep/emrep2022.pdf</a> ) published that this is an ongoing study. Information generated by this study could be useful for the Committee, however this study is subject to confidentiality provisions.	The Committee responded by providing information about their confidentiality process. The commenter did not follow up with a submission.
Recommend requesting and considering the National Research Council (NRC) of Canada's Iceberg Sighting Database and the MSC50 Wind and Wave Climate Hindcast dataset.	The Committee contacted the National Research Council requesting NRC's Iceberg Sighting Database. NRC provided access and also confirmed their membership on the RA's Scientific Information and Community Knowledge Advisory Group.
Recommend engaging the Government of Alberta about the circumstances that have contributed to its pause of wind development in the province and to consider whether any of the factors influencing their decision should apply to NL.	Noted.
The following organizations/groups may have additional information with respect to the Focus Area and the constraints analysis conducted: <ul style="list-style-type: none"> <li>• Energy NL</li> <li>• The Canadian Association of Petroleum Producers</li> <li>• Marine Renewables Canada</li> <li>• Indigenous Groups</li> <li>• One Ocean</li> <li>• Fisheries Groups (e.g. Fish Food and Allied Workers Union, Association of Seafood Producers, Ocean Choice international, Atlantic Groundfish Council</li> <li>• Port of Argentina</li> <li>• Seismic Operator</li> <li>• EcoNext</li> <li>• C-Core</li> </ul>	Throughout October 2023, the Committee engaged experts to validate their work. The Committee reached out via email to contacts with potential expertise in OSW development, ice management, and/or monitoring and data in Atlantic Canada to arrange meetings. The Committee considered all experts suggested during the public feedback period, and by Advisory group members. The Committee also contacted Marine Renewables Canada to request information on OSW developers who may be interested in developing OSW in NL and requested to meet with said developers.
Encourage the Committee to participate in the Canadian Association of Petroleum Producer's 2023 NL Offshore Environmental Forum on November 20-21, 2023. The forum will have a variety of sessions on a number of topics including spill prevention and response, new technology/emerging research, understanding and mitigating potential impacts of oil and gas on marine life, seabirds, and emissions reduction progress/research and updates from research organizations.	Noted.
The C-NLOPB would be pleased to provide relevant and shareable information from other jurisdictions as it becomes available. C-NLOPB representatives participated in an OSW study tour organized by the Canada-Germany partnership. Details on Germany's experience with OSW can be found at <a href="https://www.bmwk.de/Navigation/EN/Home/home.html">https://www.bmwk.de/Navigation/EN/Home/home.html</a>	The Committee welcomes all information and will review and consider the experiences of other jurisdictions with OSW development activities.
The Government of Canada recently established a \$75 million Emissions Reduction Fund –Offshore Program, supporting capital, research and development, and demonstration projects designed to reduce emissions or improve environmental performance. One funded research project concluded the work conducted to date indicate that global system loads arising from the addition of seasonal ice do not appear to be a major impediment which might render an offshore floating wind turbine in this region infeasible. The Committee is strongly encouraged to directly consult the	The Committee held or proposed meeting with several of the contacts engaged in the Emissions Reduction Fund in October 2023 (see Table 1 above).

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<p>companies and organizations engaged in the Emissions Reduction Fund – Offshore Program in relation to the feasibility of wind turbines in iceberg-prone waters and the delineation of the Focus Area. Contacts can be found at <a href="https://energyresearchinnovation.ca/projects/">https://energyresearchinnovation.ca/projects/</a></p>	
<b>Engagement</b>	
<p>Committee gave short time period for participants to provide feedback.</p>	<p>The Committee acknowledges the short time period for participants to provide feedback. A short time period was allotted because of the timelines for the overall RA set out in the Agreement. The Committee felt it better to seek input on this first step before proceeding further in their work. The Committee submitted a letter to the ministers on October 18, 2023 expressing timeline concerns and requesting more time to complete the RA. The letter to the ministers is available <a href="#">here</a>.</p>
<p>Unaware of/short notice for feedback sessions on Focus Area. Do better job communicating with public and inshore enterprise owners.</p>	<p>The Committee has heard participants' suggestions about preferred communication methods beyond email, website and social media and will consider these when planning future engagement.</p>
<p>Extremely dissatisfied with the lack of notice and overall delivery of Focus Area Feedback and Advisory Group sessions. FFAW membership feels these engagement sessions were inadequate in capturing a clear picture of the true impacts imposed on the families and fish harvesters that would be most affected by offshore developments in this Proposed Focus Area.</p> <p>It is imperative that in depth discussions with the fishing industry and engagement with experts in fisheries science and management occur. Coexistence of OSW with sustainable fisheries requires a strong understanding of OSW impacts to fisheries and the marine ecosystem to avoid, minimize, and mitigate impacts.</p>	<p>Identifying the Focus Area prioritizes where work under the RA is most needed at this time. The Committee is not saying OSW should occur throughout the entire Focus Area. The Committee continues to engage and consider potential impacts of OSW on fisheries and the marine ecosystem within the Focus Area.</p>
<p>Due to the demographics of NL and the nature of the communities within the Proposed Focus Area, engagements must be in-person and there must be sufficient time in advance provided for these affected communities to prepare their thoughts and concerns. The timing of these consultations must also consider seasonal availability for attendance.</p>	<p>The Committee has heard participants' suggestions about preferred in-person sessions and will consider these when planning future engagements.</p>
<p>A more substantial scientific and regulatory review on the potential effects of wind development needs to be conducted, in parallel with in-depth consultations with all affected marine stakeholders, including producers.</p>	<p>The Committee is reviewing available scientific information about the potential effects of OSW in other jurisdictions. The Committee's recommendations will be reviewed and considered by federal and provincial ministers and regulators who will oversee OSW development. The Committee acknowledges in depth engagement is challenging in the RA timeline. The Committee submitted a letter to the ministers on October 18, 2023 expressing timeline concerns and requesting more time to complete the RA. The letter to the ministers is available <a href="#">here</a>.</p>

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<p>We support the development of low-carbon energy production that aligns with the company's goals for transition to a low-carbon economy. We look forward to an engagement process that enables all stakeholders in NL who contribute to Canada's blue economy strategy the opportunity to provide meaningful feedback to this future development.</p>	<p>The Committee will continue to engage any interested participants throughout the RA.</p>
<p>In Advisory Group meetings, the Committee mentioned using DFO VMS fishing data to identify areas of fishing activity in reducing spatial conflict with fisheries. It is important to note that small, inshore fishing vessels are not required to use VMS, therefore their fishing patterns will not be identifiable this way. Inshore fishing data is particularly important for this Proposed Focus Area on the southwest coast with respect to the emerging halibut and lobster fisheries. The Committee must appreciate that this data is complex and not readily available. FFAW is making an effort to collect more useful inshore fishing data for the Committee, however, it is complicated and difficult to compile and display visually. Moreover, the Committee must consider long-term fishing areas and trends, over time, and of all species fished in the Proposed Focus Area. Continuous consultations with FFAW throughout the planning process for OSW development must occur.</p>	<p>The Committee is aware of this data gap and will continue to engage FFAW and consult various data sources. The Committee intends to draft recommendations about data gaps regarding impacts of OSW and about how they should be addressed.</p>
<p><b>Consultation</b></p>	
<p>The Committee received some submissions related to meaningful Indigenous consultation including:</p> <ul style="list-style-type: none"> <li>• I would like to see proper consultation in all regions affected. We need a full indigenous assessment and study done. Meaningful consultation has not been done. We urge the government and the Committee to embrace our communities in discussions that are respectful to all involved about the need for more information around the current technologies that are being considered and the potential effects to our communities.</li> <li>• Our Mi'kmaq people are not being respected and have not be consulted. When will the UN Declaration on the Rights of Indigenous Peoples come into play and your duty to consult and seek direction and permission? This proposal puts us in jeopardy and is totally unacceptable.</li> </ul>	<p>The Committee continues to engage Indigenous communities who have expressed interest in the RA according to the Indigenous Participation Plan available on the Impact Assessment Registry and shared with Indigenous groups for their input. The Committee is not a decision-making body and so the RA does not trigger any Duty to Consult. The Committee understands project-level impact assessments will be conducted for proposed OSW projects in NL once a licence and regulatory regime is in place. Project-level impact assessments will include consultation with potentially impacted Indigenous peoples.</p>
<p><b>Other</b></p>	
<p>Environmental Assessments and Environmental Impact Statements have historically disregarded impacts on the fishing industry.</p>	<p>The Committee's Agreement requires they identify and consider the potential positive and adverse effects of various components, including fisheries and other ocean users.</p>
<p>Individual projects need to be assessed.</p>	<p>The Committee has received no indication to date that the Minister of Environment and Climate Change intends to exclude future OSW projects from impact assessment following this RA. The Committee wrote to the Minister on October 4, 2023 to request confirmation. The letter to the Minister is publicly available on the RA Registry site <a href="#">here</a>. Further, The Committee recommends the Minister of Environment and Climate Change does not</p>

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	exercise their power to exclude proposed OSW projects within the RA Study Area from future project-level impact assessments, including at sites beyond the Focus Area.
The current Proposed Focus Area is far too large to accurately gauge the full extent of impacts. Without any knowledge of possible areas of extent for development, safety zones around possible offshore structures, and other subsequent no-go zones for fishing, it is challenging to communicate just how detrimental any offshore installations would be. It is impossible to accurately articulate the impacts of OSW developments in the Proposed Focus Area without knowing the intentions of the developments themselves.	The Committee expects and recommends project-level impact assessments will be conducted for proposed OSW projects in NL once a licence and regulatory regime is in place. These will analyze the specific impacts of any future projects.
Bill C-49 envisions the Canada-NL Offshore Energy Regulator (“CNLOER”) being empowered to conduct RAs and strategic assessments of the effects of any existing or future works or activities related to offshore renewable energy projects within its jurisdiction. These powers are not currently held by the Canada-NL Offshore Petroleum Board. The Committee should consider how its learning and experience can be translated into a suite of recommendations to support future assessments by the CNLOER.	The Committee intends to provide recommendations, based on their work, to future regulators of OSW. These recommendations will be included in the Committee’s final report.
Shapefile request	Sent shapefile
Parks Canada will continue to conduct site analysis within the final Focus Area and will provide recommendations to the Committee as it relates to Parks Canada’s Protected Heritage Places and Parks Canada administered World Heritage Sites, with the goal to help inform the Committee’s future planning, licencing, and impact assessment processes during the remainder of the RA.	The Committee confirms they have provided direction to government departments with expert information to prioritize their work according to the Focus Area.
I would like to submit my support for the offshore windmill project proposal by World Energy GH2.	The RA is not affiliated with any specific projects.
It is not clear what the implications of Bill C-49 would be on this RA. It should be noted that FFAW-Unifor has not been engaged on or consulted with whatsoever on this proposed legislation but serves to be directly affected by it.	The Committee is not aware of any impacts that Bill C-49 would have on the RA and is not associated with the consultation or implementation of this Bill.
An extensive literature review of data outside of that provided by DFO needs to be undertaken. Explore all data available on the occurrence of spawning and nursing grounds within the proposed area and make an active effort to seek out data that is not provided by DFO, such as peer-reviewed academic papers, grey literature, and traditional and ecological knowledge	The Committee has been undertaking literature reviews and research of publicly available information to include in their findings alongside any information that a federal authority (such as DFO) will be providing.
Grieg Seafood NL embraces innovation and advancements towards carbon neutral energy. At this early stage we are unsure of any potential impacts to our operations on the Burin Peninsula and in Placentia Bay. We would welcome the opportunity to meet and discuss site locations and construction process to ensure minimal impact on our aquaculture sites and communication towers in the area. We look forward to the project developing.	The Committee values the input and welcomes any stakeholder to participate in their upcoming engagement sessions to have opinions heard and to apply to their Advisory Groups to share expert opinions on topics. There is also no project tied to the RA. The final output will be recommendations for OSW licencing areas and recommendations surrounding effects and mitigations.
<b>Potential Impacts of OSW on environmental, social, health and economic components.</b>	
The Committee received several comments about the potential impacts of OSW on environmental, social, health and economic components which the Committee will assess throughout the course of the RA:	The Committee values this information. It will be considered as the Committee continues to assess

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<ul style="list-style-type: none"> <li>• Cannot support any OSW developments in and around Bay St George and the Port au Port peninsula. We approve of the on-shore windfarm development and feel that no more impacts to our ecosystem and way of life is acceptable.</li> <li>• We are strongly opposed to OSW energy development of the West Coast of NL. Port au Port Peninsula is currently slated to be the site of a multibillion mega project that has high potential to negatively impact the ecosystems, environment, wildlife, water and quality of life of residents.</li> <li>• The province is not adequately positioned to pursue OSW at this time because not enough is known about potential impacts to the fishing industry.</li> <li>• Direct and indirect impacts on fisheries is of concern. For example:       <ul style="list-style-type: none"> <li>○ Physical avoidance by fish, changes in recruitment potential and relocation of fish to more suitable habitats.</li> <li>○ Changes of socially and commercially important ground fish stocks, which can lead to difficulties for harvesters in catching their quotas.</li> <li>○ Poorly understood population effects from OSW farms for species with planktonic larvae (e.g., cod, halibut, flounder, etc.).</li> <li>○ Leaky turbines and the impacts of oil and other lubricants should this occur at sea.</li> <li>○ Coexistence with several marine uses places cumulative pressure on the fishing industry.</li> <li>○ Potential restrictions for fishing in windfarms or, where allowed, required circumnavigation resulting in lost fishing time and increased operational cost.</li> <li>○ Disruption of physical oceanographic elements (temperature, current, and ocean stratification) can affect lower trophic level community structures and ecosystem productivity.</li> <li>○ Impacts on the fishing industry and coastal communities where fisheries provide significant economic contributions. Impacts will include direct displacement of fishing activity, population level influences on fish stocks, and effects to scientific stock assessment surveys, assessment results, and subsequent fisheries management decisions.</li> <li>○ Disruptions in stock assessment survey completion and changes to assessment methodology can result in over cautious management decisions about harvest rates for fishers.</li> <li>○ Impact on the perceived or actual success of fish stock rebuilding plans (e.g., in 3Ps Cod Rebuilding Plan).</li> <li>○ Impacts on both inshore and offshore fishers</li> </ul> </li> <li>• Spawning grounds, reproductive areas and productive fishing grounds change season to season and species to species. Any area under 200 fathom will be fished so long as the fisheries is allowed to do so. It is extremely unfair to ask harvesters which fishing areas they are willing to sacrifice for OSW advancement.</li> <li>• The Focus Area includes sections of NAFO divisions 3Ps, 3Pn, and 4R. These areas have high commercial fishing activity with a number of directed and bycatch groundfish fisheries including, American plaice, Atlantic cod, Witch flounder, Atlantic halibut, Greenland halibut, haddock, pollock, redfish, and yellowtail flounder. Atlantic Cod (<i>Gadus morhua</i>) in NAFO Subdivision 3Ps spans southern NL, from Cape St. Mary's to west of Burgeo Bank, and over St. Pierre Bank and most of Green Bank. The 3Ps cod fishery is managed jointly by Canada and France (in respect of St. Pierre et Miquelon). There are long standing catch histories for the 3Ps Atlantic cod fishery within the Focus Area. Along the Halibut Channel (east of the French waters) is an important area for the Mobile Gear (MG) fleet. The St. Pierre Bank and Placentia Bay are key fishing areas for the gillnet fishery, and there is a high level of fishing activity from the longline fishery on the southwestern</li> </ul>	<p>these topics over the course of the RA, within the Focus Area.</p>
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<p>edge of the St. Pierre Bank, the Haddock Channel, and Placentia Bay. Additional commercial fish stocks that are important to the Proposed Focus Area are capelin, snow crab, American lobster, and sea cucumber. We are concerned that proposed wind activity within the Focus Area could have significant and detrimental effects to spawning and nursing grounds for commercial fish stocks.</p> <ul style="list-style-type: none"> <li>• Fisheries need to be avoided. Identified areas include: <ul style="list-style-type: none"> <li>○ NAFO fishing area 3Ps and parts of Placentia Bay. There are important spawning areas within this bay for cod and crab, and important fishing areas between 95-130 fathom, depending on the year and seasonality of crab.</li> <li>○ Heavily fished areas such as the southwest coast and within Placentia Bay. Important cod spawning grounds exist along the Burgeo and St. Pierre Banks and within Placentia Bay from March to August.</li> <li>○ All inshore lobster fishing areas. The lobster fishery takes places from mid-April to mid-July every year and occurs in water depths of 30m or less. Their molting and mating seasons must be protected. This fishery is particularly important along the southwest coast where harvesters have an increased reliance on this fishery as other fisheries in NAFO area 4R and 3Pn have been shut down by DFO. For many harvesters, lobster is their primary or sole commercial fishery</li> <li>○ Lobster fishing zones 13a, 13b, 11 are directly adjacent priority traditional use areas. Lobster fishery can be particularly affected by spatial conflict with OSW. Lobster primarily feed on ocean floor, OSW development disturbs it.</li> <li>○ Directed fishery for Witch flounder (<i>Glyptocephalus cynoglossus</i>) in the Proposed Focus Area, with significant fishing effort occurring east of the French Exclusive Economic Zone (EEZ), on the edge of the slopes of the Grand Banks, south of St. Pierre Bank, as well as the Halibut Channel and Green Bank.</li> <li>○ The Atlantic halibut stock in NAFO Divisions 3NOPs4VWX5Zc –currently well within the Healthy Zone of the Department of Fisheries and Ocean’s (DFO) Precautionary Approach (PA) Framework and has the potential to be a long lasting, sustainable fishery resource. OSW effects can hamper the potential for stocks like these to continue providing sustainable product to fish harvesters and processors in Atlantic Canada and to consumers worldwide.</li> <li>○ Stocks in the critical zone of DFO’s Precautionary Approach Framework including 3Ps cod, 3Pn4Rs Northern gulf cod, and 4R herring (spring and fall spawners).</li> <li>○ Proximity of developments to important river systems with Atlantic salmon may be a concern. Two areas of particular concern which we would suggest this Committee keep in mind are in the Bay of Islands zone and St. George’s Bay to Cape Ray zone. These two zones contain the Great Codroy River system and tributaries and the Humber River system and tributaries, both of which are immense importance to our wild Atlantic stocks here in the province. These areas need to be carefully considered if any development is to occur off the coast of these zones. NL is the last stronghold for wild Atlantic salmon in North America, and we must ensure this species is not put at risk from economic developments.</li> </ul> </li> <li>• Every effort should be made to clearly identify when and where annual RV surveys and fisheries-dependent data collection is occurring to ensure that impacts to these critically important surveys are avoided and mitigated wherever possible. Scientific survey work should be a key consideration when narrowing areas for OSW development. Some examples include:</li> </ul>	
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<ul style="list-style-type: none"> <li>○ DFO annual research vessel (RV) botom trawl survey (conducted in NAFO Subdivision 3Ps since the early 1980s);</li> <li>○ DFO RV botom trawl survey in 4RS (since 1990);</li> <li>○ mobile gear sentinel fishery program (botom trawl) in 4RS3Pn has occurred since 1995; and</li> <li>○ DFO-Industry Halibut Longline Survey is conducted throughout the Scotian Shelf and Southern Grand Banks (overlapping with the southern portion of the Focus Area) since 1998.</li> <li>● We are living in a time of climate change and climate uncertainty; therefore, it is essential to consider potential shifts in species distribution over time and if the presence of wind activity could hinder the rebuilding of commercial fish stocks or prevent them from future longevity. We recommend considering 20 years at a minimum. The average lifetime of a wind turbine (about 20 years) is equivalent to 2.5 generation times for cod and around 4 generation times for herring.</li> <li>● A compilation of comprehensive economic data must be a key component of assessing the economic impact of OSW on the fishing industry.</li> <li>● Considering sensitive benthic habitats is important. The Proposed Focus Area overlaps several Significant Benthic Areas (SBAs), including aggregations of sponges and sea pens. Cold-water sponges and corals are important components of benthic ecosystems, that provide complex habitat structure important to invertebrates, fish, and other sea life. Due to their slow growth rates, mitigation of impacts on SBAs is essential in avoiding serious and irreversible harm to these already vulnerable systems.</li> <li>● Some comments emphasized the importance of considering cumulative effects. Comments include: <ul style="list-style-type: none"> <li>○ Consider cumulative effects of all stages of OSW development on spawning and nursing grounds.</li> <li>○ Consider the wider cumulative effects of industrial activity on commercial fish stocks</li> <li>○ Consider the cumulative effects of increased shipping and the impacts it can have on marine life (e.g., increased underwater noise, increased risk of marine pollution, and an increase of greenhouse gas emissions from the shipping industry)</li> <li>○ Consider cumulative impacts including from onshore wind energy development currently being considered for the Port au Port peninsula. Any OSW installations near that peninsula could be highly problematic for migratory birds and bats if the Port au Port project goes forward, since that project would create its own, extremely problematic risks and stresses for migratory species.</li> </ul> </li> <li>● Consider how increased shipping due to OSW will impact the International Maritime Organizations roadmap targets for reducing global shipping emissions. Targets were revised in July 2023 and include a 10% clean fuel standard and 30% reduction in emissions by 2030.</li> <li>● There is the possibility of an underwater wreck that could be impacted by OSW in NL. Provincial legislation is in place (Historic Resources Act and archaeological regulations) to protect underwater resources.</li> </ul>	
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