REGIONAL ASSESSMENT OF OFFSHORE WIND DEVELOPMENT IN NEWFOUNDLAND AND LABRADOR AND NOVA SCOTIA

Environment and Climate Change Canada Comments on Appendix A: Draft Terms of Reference. November 25, 2022

A1: MANDATE AND ACTIVITIES OF THE COMMITTEE

Committee Activities and Requirements
Page A-3:

h) Each of the advisory groups described below will provide information and advice to the Committee on the topics outlined below, as required and requested:

a. Environmental, health, social and economic conditions in the Study Area;
b. Future offshore wind development activities in the Study Area, including their:
    i. Purpose;
    ii. Associated physical activities;
    iii. Key areas of interest for future offshore wind development activities in the Study Area (to help focus the Committee's work on locations which are most likely to see future development interest, based on technical and economic factors);
    iv. Regulatory requirements;
    v. Potential positive and adverse effects, including cumulative effects;
    vi. Mitigation measures and follow-up, and other approaches for avoiding or reducing potential adverse effects and creating and maximizing potential positive effects; and
c. Other topics relevant to the Regional Assessment, as requested by the Committee.

ECCC-01

Shorelines in the Study Area often contain Critical Habitat and otherwise important habitat for species at risk and migratory bird species. Including this in the Regional Study can help in avoiding these areas as part of future project planning.

Associated physical activities should include those related to new near-shore and, where appropriate, on-land infrastructure and components. Including this could help identify opportunities for avoiding the creation of new access and disturbances to sensitive and previously undisturbed coastal and onshore environments.

Committee Activities and Requirements
Information and Analysis
Description of Existing Conditions
Page A-3

p) Identify, compile, review and present information on existing environmental, health, social and economic conditions within the Study Area.

As noted in Section 3.5 of the Agreement, this will include information contained in any past or ongoing impact or environmental assessments (including strategic environmental assessments), and information provided by government, industry, academia, Indigenous peoples or the public.

ECCC-02

The Strategic Assessment of Climate Change (SACC) has been developed to enable consistent, predictable, efficient and transparent consideration of climate change throughout the impact assessment process. It describes the greenhouse gas and climate change information that project proponents need to submit at each phase of a federal impact assessment and requires proponents of projects with a lifetime beyond 2050 to provide a credible plan that describes how the project will achieve net- zero emissions by 2050.

The SACC was deemed a strategic assessment conducted under section 95 of the *Impact Assessment Act* (IAA). It applies to designated projects under the IAA. The principles and objectives underlying the SACC will be built into guidance for the review of non-designated projects on federal lands and outside Canada under the IAA. Guidance for projects regulated by the Canada Energy Regulator will similarly consider the principles and objectives of the SACC.

The SACC may also apply to environmental reviews by other federal lifecycle regulators, and be used in regional assessments. Accordingly, ECCC recommends the committees include consideration of the SACC in the collection and analysis of information.

Analysis of Effects, Mitigation and Follow-up
Page A-4

s) Identify and consider the potential positive and adverse effects of future offshore wind development activities in the Study Area.

This will include consideration of: potential malfunctions or accidents; any cumulative effects that may result from the effects of offshore wind development activities in the

Study Area in combination with other physical activities that have been or will be carried out; and the result of any interaction between the effects referenced above.

ECCC-03

ECCC views the consideration of cumulative effects as an important function of the RA. While the description above provides the generally understood definition of cumulative effects, given that the Study Areas have been subject to resource development and other activities over an extended period of time, ECCC recommends that the elements of and the expectations for a cumulative effects analysis, including the role of traditional indigenous knowledge, be more clearly identified and defined in the RA.

ECCC-04

ECCC recommends that potential effects of the physical environment on projects be added to this list. This includes how local conditions and natural hazards such as wind, wave and ice conditions could adversely affect the project and how this in turn could result in impacts to the environment. There is also a need for consideration of potential interference of turbine structures and meteorological infrastructure. Please see further detail in the discussion below:

Potential Implications of Offshore Wind Turbines on Radar

Wind farms can create interference with weather radars and impair forecasting and alerting functions. For on-land structures these concerns are mostly for projects within 50 km of a radar and with 200 m or higher turbines.

It is understood that offshore wind facilities could be comprised of turbines that are significantly taller than those on land. The impact potential of offshore projects near ECCC's radar installations in NL and NS needs to be assessed based on distance and turbine height (a GIS based visibility assessment).

ECCC can provide a preliminary evaluation of zones where there may be greater concern for interference and where further analysis would be needed to help inform project planning and design.

Potential Implications of Sea Ice Interaction with Offshore Wind Turbines

In the case of offshore oil and gas platforms, there is a need to consider ice management (drifting sea ice and icebergs) in order to avoid damage to the platforms. A similar consideration for wind turbines may also be warranted.

Additionally, if the turbines are located in areas of coastal fast ice (non-mobile ice), there should be consideration of influences on the sea ice formation

pattern/timing. This could have impacts for on-ice travel from nearby communities (if applicable).

There may be limitations to site access if repairs are needed during ice season since vessels may have difficulty reaching the site by sea.

We often see bridge structures “shredding” of sea ice as it passes under bridge structures is a common observation. This could be expected to occur at wind turbine installations which could significantly change the nature of the sea ice floe distribution (smaller floes of ice in general).

Implications of Lightning on Offshore Wind Turbine

Wind turbines and related infrastructure need to be designed according to the best practices regarding lightning and the grounding of currents. Best management practices and forecast tracking need to be incorporated for maintenance and repair work on wind turbines, in order to monitor and avoid lightning conditions.

Analysis of Effects, Mitigation and Follow-up

Page A-5
t) In identifying and considering potential positive and adverse effects, the Committee will focus on the following environmental, health, social and economic components:

i. Marine Fish and Fish Habitat
ii. Marine and Migratory Birds
iii. Marine Mammals and Sea Turtles
iv. Protected and Special Areas
v. Indigenous Communities, Activities and Rights
vi. Fisheries and Other Ocean Uses
vii. Visual Aesthetics / Viewscapes
viii. Physical and Cultural Heritage (including structures, sites or things of historical, archaeological, paleontological or architectural significance)
ix. Communities and Economy

ECCC-05

In addition to marine and migratory birds, ECCC has responsibilities for non-marine species listed on the federal *Species at Risk Act (SARA)*. As such, ECCC recommends that species at risk be specifically included in the list of components. Further to this, there is information available that indicates three SARA-listed bat species could interact with offshore wind installations. Please see further detail in the discussion below:

Potential Interactions with Offshore Wind Facilities and Bats

Species at risk individuals, critical habitat and residences of Endangered and Threatened species are protected under the *Species at Risk Act* (SARA). ECCC-CWS is the responsible agency for the three SARA-listed bats species (Little Brown Myotis, Northern Myotis and Tri-colored Bat) on lands *and waters* under federal jurisdiction, which includes the study area for offshore wind energy development. A SARA s. 73 permit may be required for activities likely to affect (directly and indirectly) individuals of a SARA listed wildlife species, any part of its critical habitat or the residences of its individuals on federal land and waters.

There is evidence showing long-distance movements in bats, though few are able to report the exact time-period over which they occurred. These observations are generally obtained from mark-recapture methods (i.e. bat is marked/tagged at one location and they are recaptured at another); there is a lack of information on real-time bat movements (e.g. using GPS or telemetry). The potential impacts of wind power on bats and their populations are largely unknown and requires further investigation but these could include possible attraction and mortality risks due to increased risk of collision with turbine structures and barotrauma associated with wind turbines.

All three SARA-listed species of bats have been recorded at offshore locations and have the potential to move long-distances (100s of kilometres) to and from their hibernation sites and summer areas. Common terminology refers to the Hoary Bat, Eastern Red and Silver-haired bats as migratory, however, this is a misnomer as the radiative emergence of bats to/from a hibernacula to maternity/summer areas is also considered migratory movement (radiative vs. latitudinal). The three SARA-listed bats are cave-dwelling species that exhibit this type of migration. Both forms of migratory movement can be long-distance. Little Brown Myotis are known to travel several hundreds of kilometres to/from a hibernation site.

While “migratory” bats are likely at greater risk to offshore wind energy development, both groups have been documented at offshore locations. From the very limited data available, the three SARA-listed species would be more likely to occur closer to land however, acoustic monitoring is needed to detect and verify the presence of bat species at risk and species of conservation interest in the Study Areas.

ECCC can provide additional studies and research information discussing the likely presence and activity of these bat species in the offshore and the potential interactions with wind turbines in this environment.

A2: COMMITTEE REPORT

Page A-7
A2.3 In its Report, the Committee will, in accordance with the goal, objectives and scope of the Regional Assessment outlined in Section 1.0 of the Agreement, include the following

information for consideration and use in future planning, licencing and impact assessments for offshore wind development activities in the Study Area:

> *Goal*: *To provide information, knowledge and analysis regarding future offshore wind development activities in the Study Area and their potential effects, in order to inform and improve future planning, licencing and impact assessment processes for these activities in a way that helps protect the environment and health, social and economic conditions while also creating opportunities for sustainable economic development.*

Objective A: Providing information, knowledge and analysis related to environmental, health, social and economic conditions and the potential effects of offshore wind development activities in the Study Area, with consideration and weaving together of both Indigenous knowledge and scientific information.

ECCC-06

To help inform this and subsequent objectives (b-d), ECCC recommends the description of conditions also include changes and trends that have been detected and/or measured through monitoring and other information collected from historical and ongoing activities in the Study Areas. This would provide a helpful context when identifying the potential impacts of new offshore wind energy development activities in these areas.