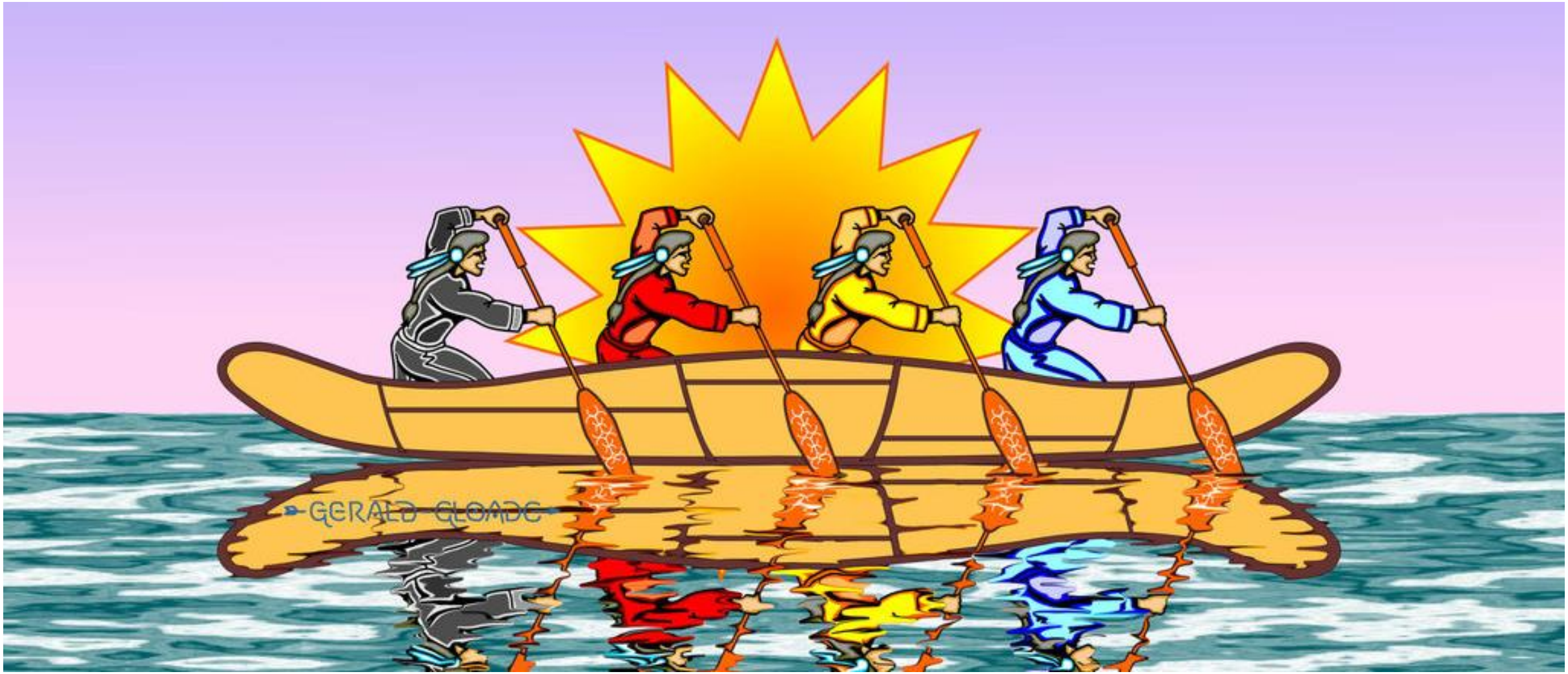
Walney Extension Offshore Wind Farm
Photo credit: The Times UK

Regional Assessment of Offshore Wind Development in Nova Scotia

Spring 2024

Opening Prayer and Territory Acknowledgement



Artwork by Mi'kmaq Artist Gerald Gloade

Committee Members

James Wooder (Co-chair)

Retired Maritime Lawyer, experienced in offshore oil and gas operations in Atlantic Canada and port-related developments in Cape Breton; Member of Board of Directors for Cape Breton Partnership.

Ann Wilkie (Co-chair)

Retired Consultant experienced in Environmental Assessments, including managing assessments for the Sable Offshore Energy and the Maritime and Northeast Pipeline projects.

Lorraine Whitman

Mi'kmaw Elder from Glooscap First Nation; Past President of the Nova Scotia Native Women's Association and Past President of the Native Women's Association of Canada.

Graham Daborn

Retired Biologist from Acadia University; Founding Director of the Acadia Centre for Estuarine Research; Director of the Academy for the Environment at Acadia University.

Steven Parsons

General Manager of Eskasoni First Nation Corporate Division; Board member on several companies and foundations including the Cape Breton University Board and the Cape Breton Partnership.

Session Overview

1. Why develop OSW in Nova Scotia?
2. Overview of the Regional Assessment
3. Interim Report Results
4. Video of Offshore Wind Development
5. Next Steps
6. Question Period

Photo credit: Wallstreet Journal

Why Offshore Wind in NS?

Why Offshore Wind Energy Development in Nova Scotia?

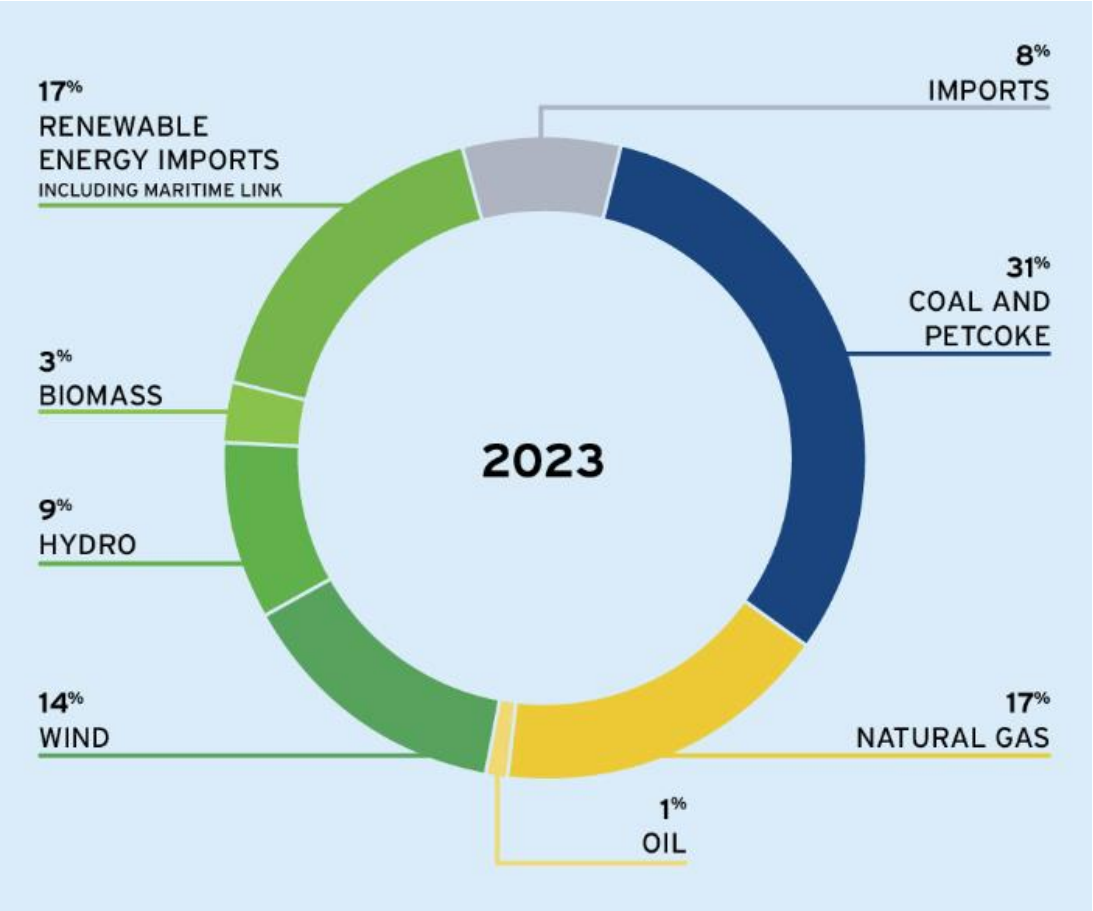


Figure Credit: Nova Scotia Power Our Energy Stats
(https://www.nspower.ca/cleanandgreen/clean-energy

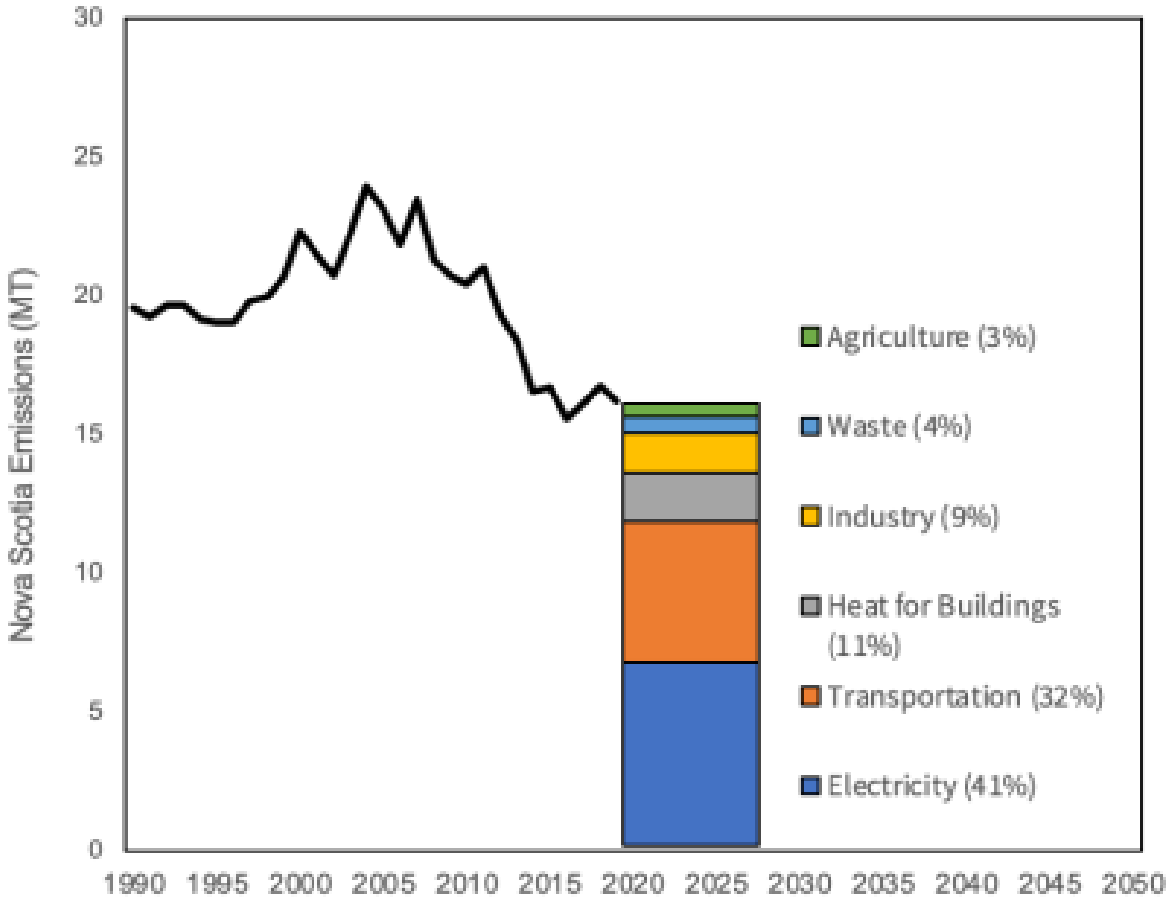


Figure Credit: Net Zero Atlantic, 2023.
Data retrieved from ECCC's GHG Database (2021)

A Global Resource

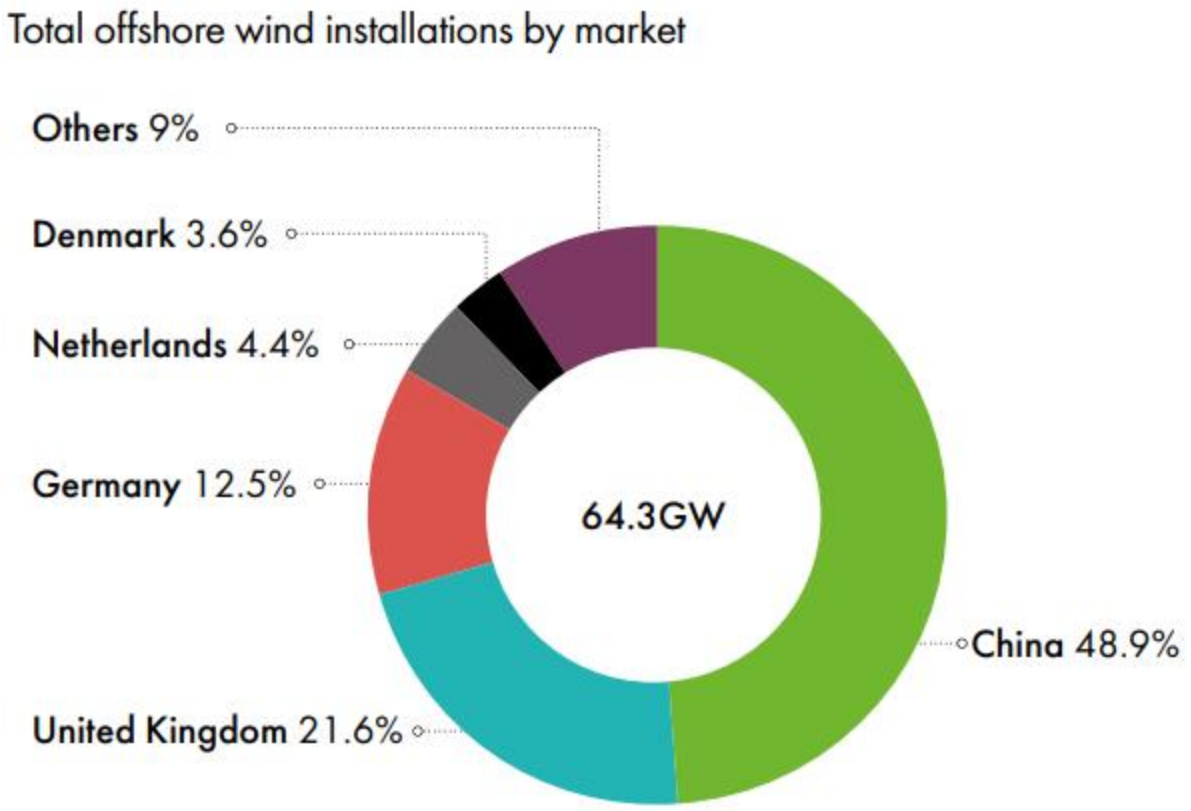
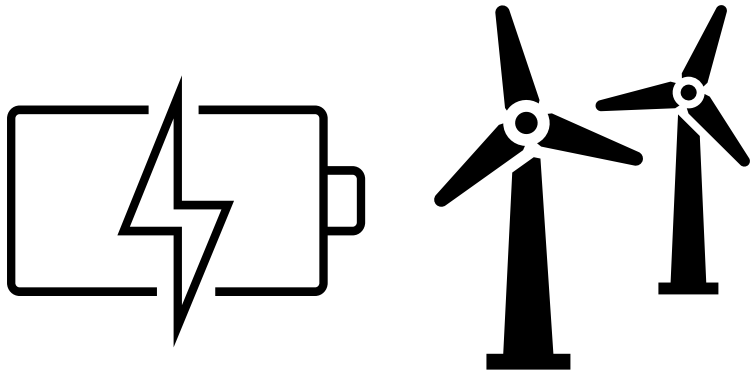


Figure credit: Global Wind Energy Council 2023

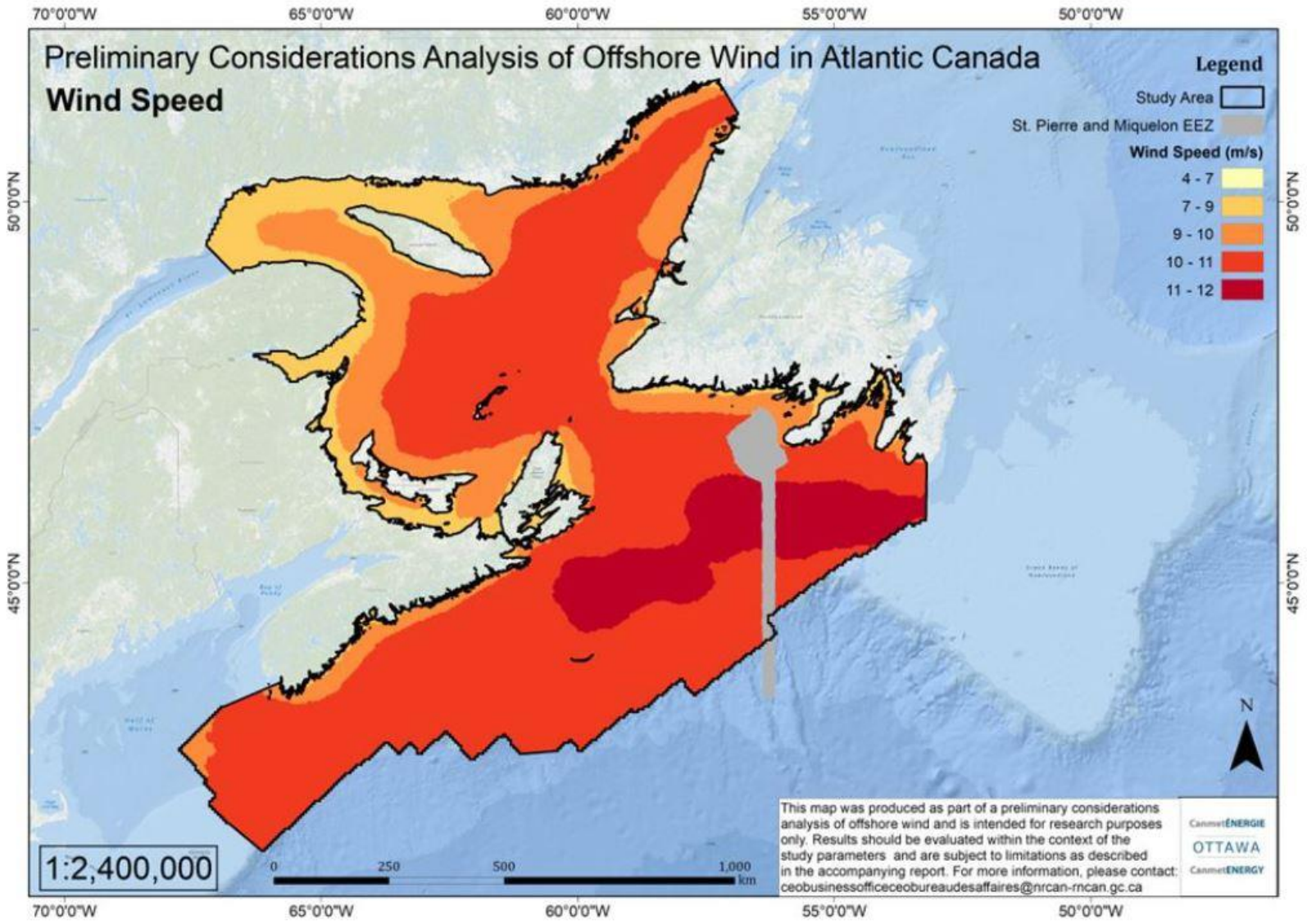
Global Offshore Wind Farms

63 GW of offshore wind installed in 2022 worldwide across 19 countries and 3 continents *(IRENA, 2023)*.



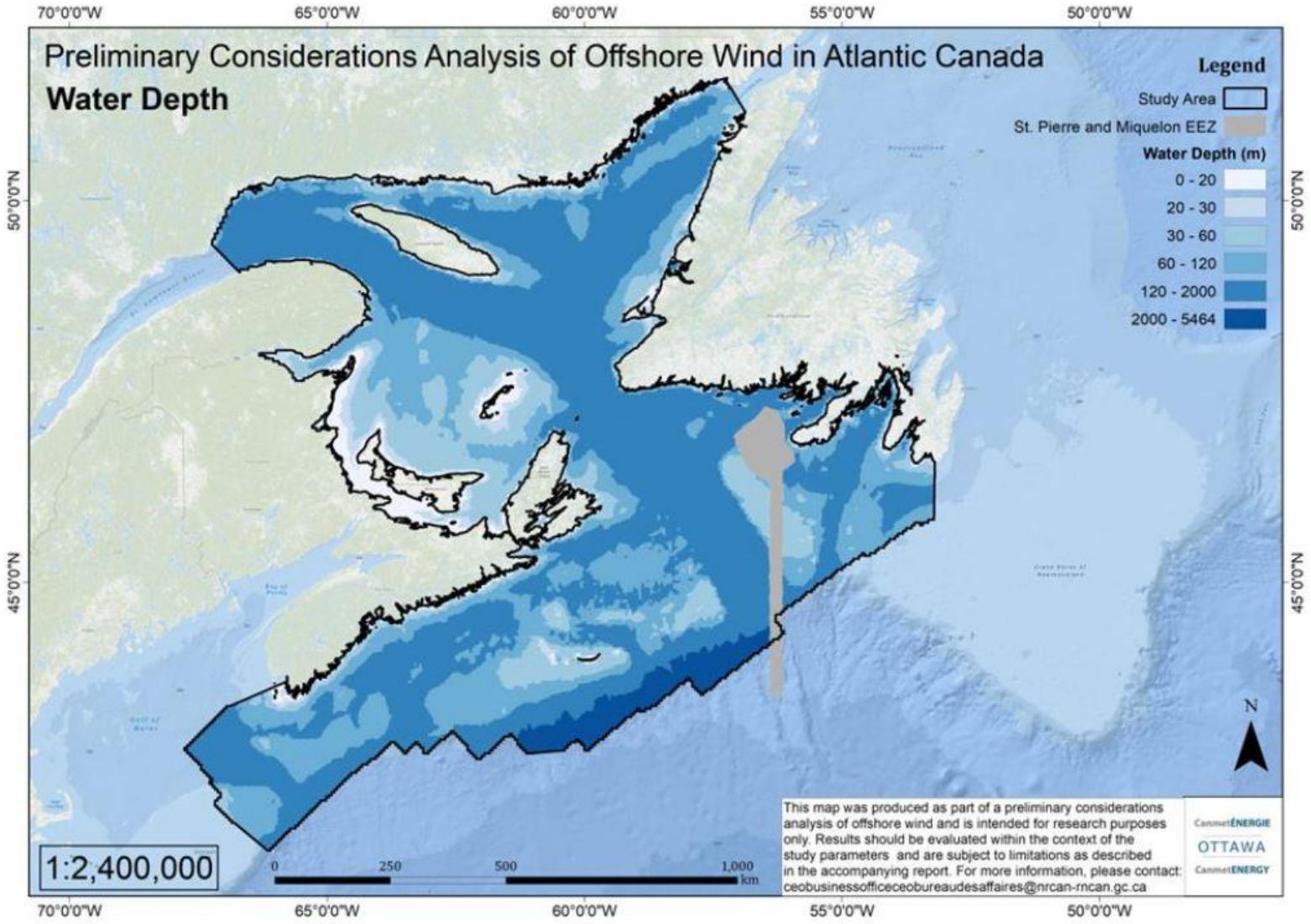
380 GW planned for the next decade.

Nova Scotia's Offshore Wind Regime



- World class wind resource in Nova Scotia offshore area.
- Higher and more consistent wind speeds offshore compared to onshore.

Water Depths in Nova Scotia's Offshore



- The continental shelf off Nova Scotia extends up to 230 kms from shore and includes areas with shallow water depth.
- Some of these areas (less than 70 m water depth) are suitable for fixed bottom (monopile).
- Greater than 70 m water depth for floating turbine foundations.

Offshore Wind Energy End Use

Options for end use:

- Connection to the existing Nova Scotia electricity grid
- Conversion to a fuel source such as green hydrogen (H_2)
- New electricity transmission to export markets

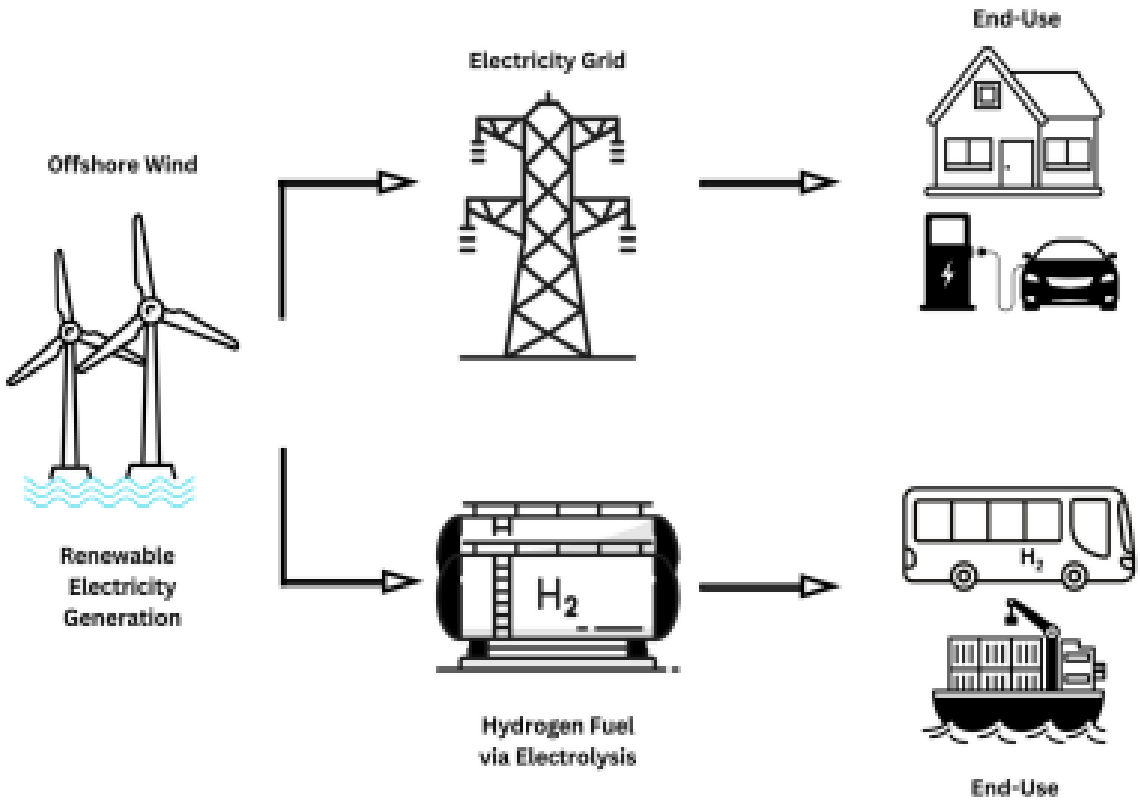
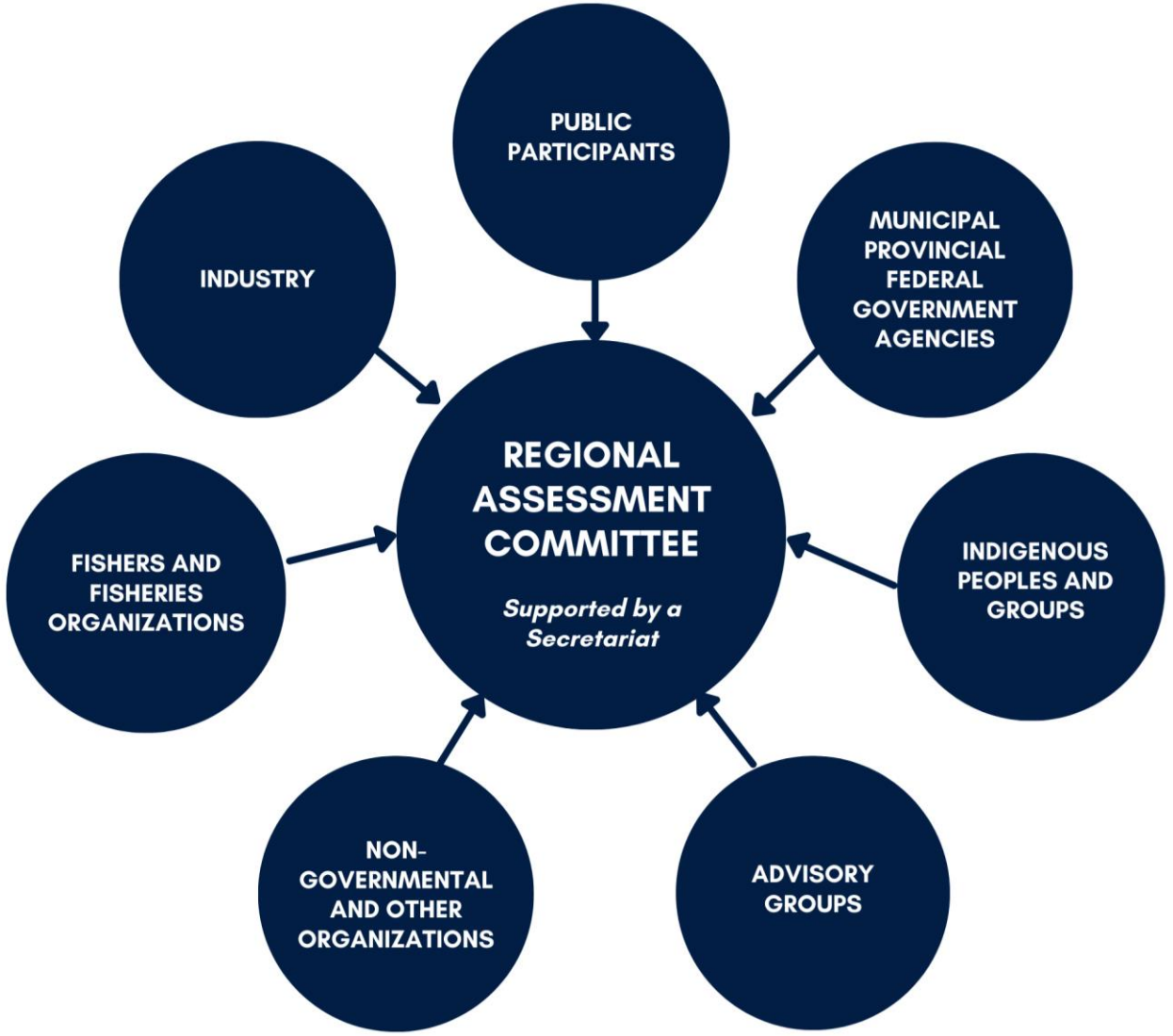


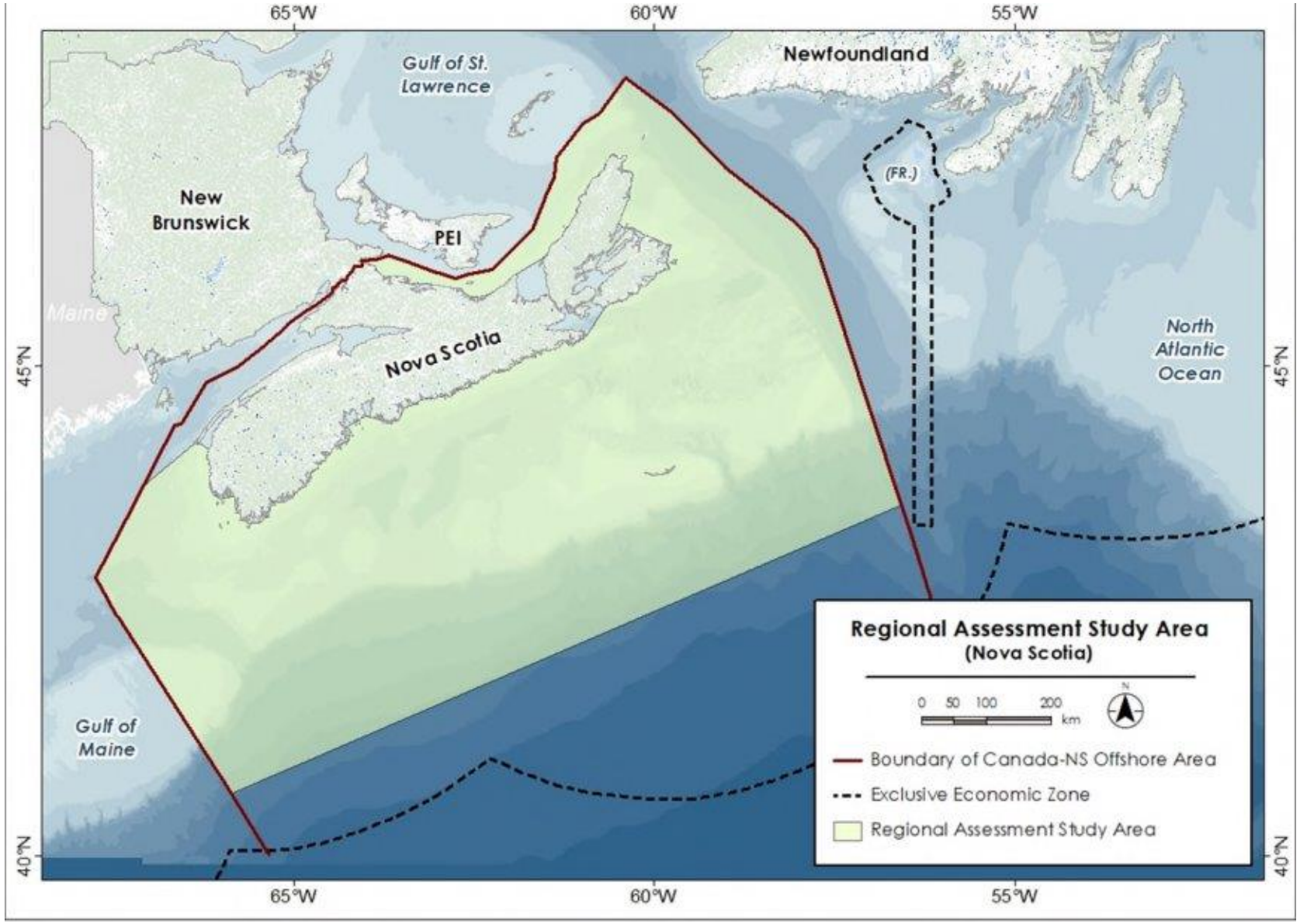
Figure credit: Net Zero Atlantic (2023)

The Regional Assessment Process

RA Participants



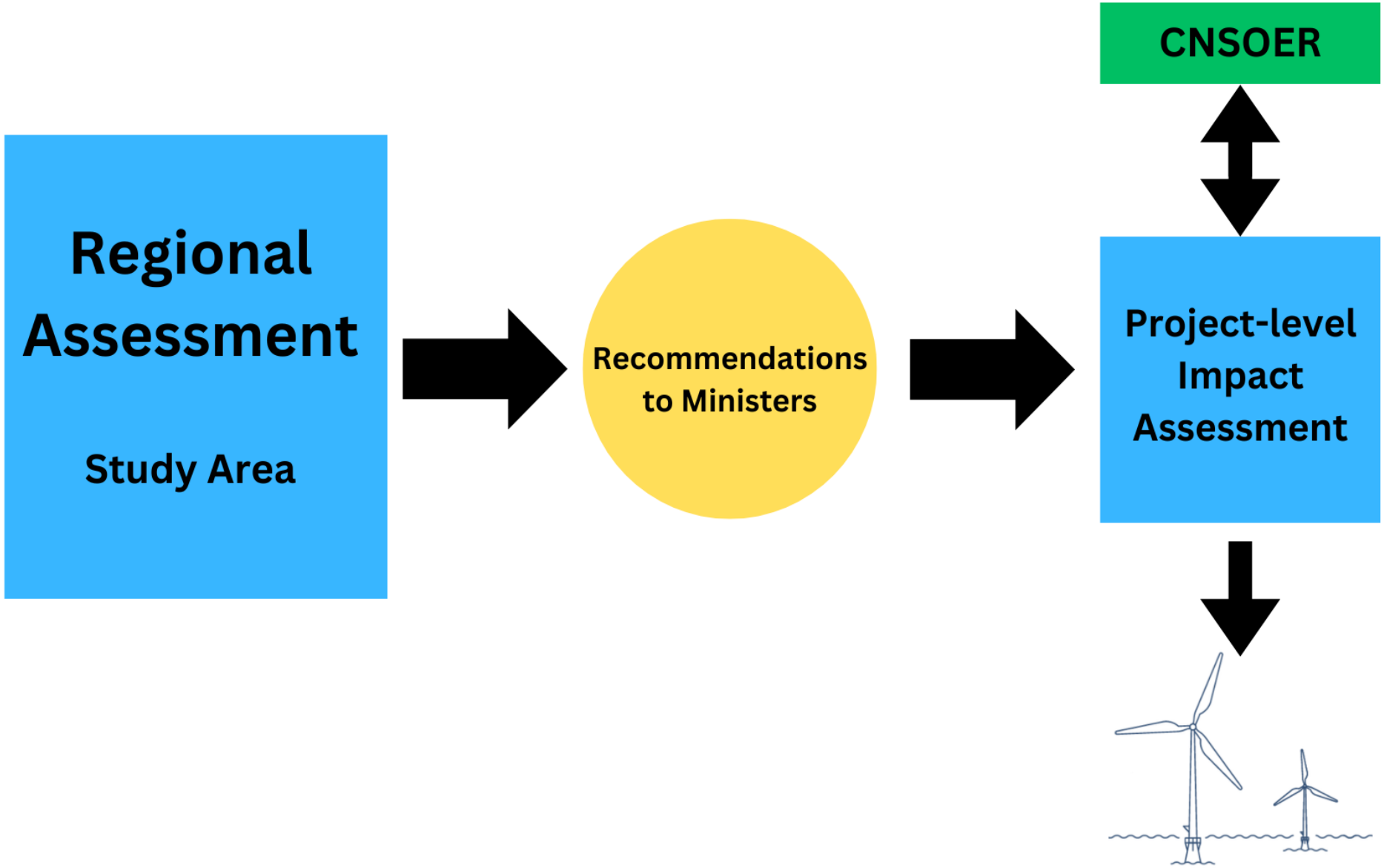
The Regional Assessment (RA) Study Area



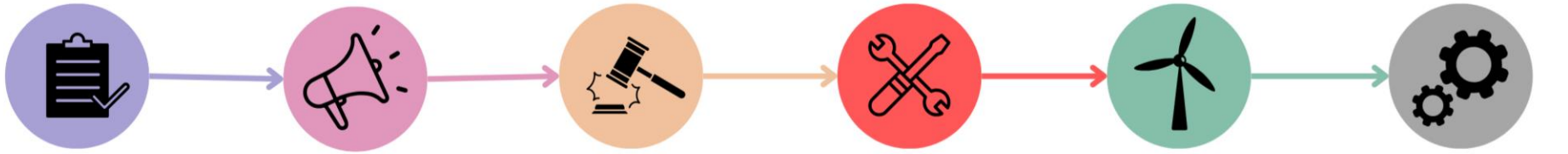
What is The Regional Assessment (RA)

What the RA is	What the RA is not
The RA is an assessment of potential development in the Study Area.	The RA is **NOT** a project.
The RA is an information gathering and engagement process to inform future impact assessments.	The RA is **NOT** a legislated decision-making process.
The RA makes recommendations to federal and provincial Ministers.	The RA does **NOT** replace other permitting processes.

Regional Assessment vs. Project-level Impact Assessment



Timeline - Parallel Activities and Offshore Wind Development



2024-25

Regulations and Reporting

Accord Acts amendments (Bill C-49 and mirror provincial legislation)

Regional Assessment Final Report

2025-26

Call for Bids and Licensing

Canada-Nova Scotia Offshore Energy Regulator (CNSOER) issues Call for Bids

CNSOER issues Submerged Land License (SLL)

2025-31

Assessments and Authorizations

Developer conducts site characterization

Developer submits Environmental Impact Statement to Impact Assessment Agency

Federal Impact Assessment

CNSOER issues Authorization to Construct and Operate

2031-32

Construction

Developer undertakes project construction activities

2033-35

Operations Initiate

Projects are operational for 25-35+ years

CNSOER enforces safety and compliance

2060+

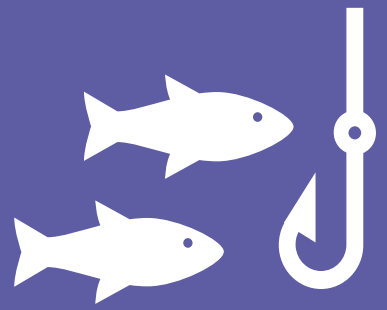
Decommissioning and Repowering

CNSOER issues Authorization to Repower and/or Decommission

DISCLAIMER: DATES ON THIS TIMELINE ARE APPROXIMATIONS BASED ON THE COMMITTEE'S INTERPRETATION OF BEST AVAILABLE INFORMATION AS OF SPRING 2024 AND ARE SUBJECT TO CHANGE.

Findings and Questions Arising from Engagement Process

Ecological and socio-economic impacts

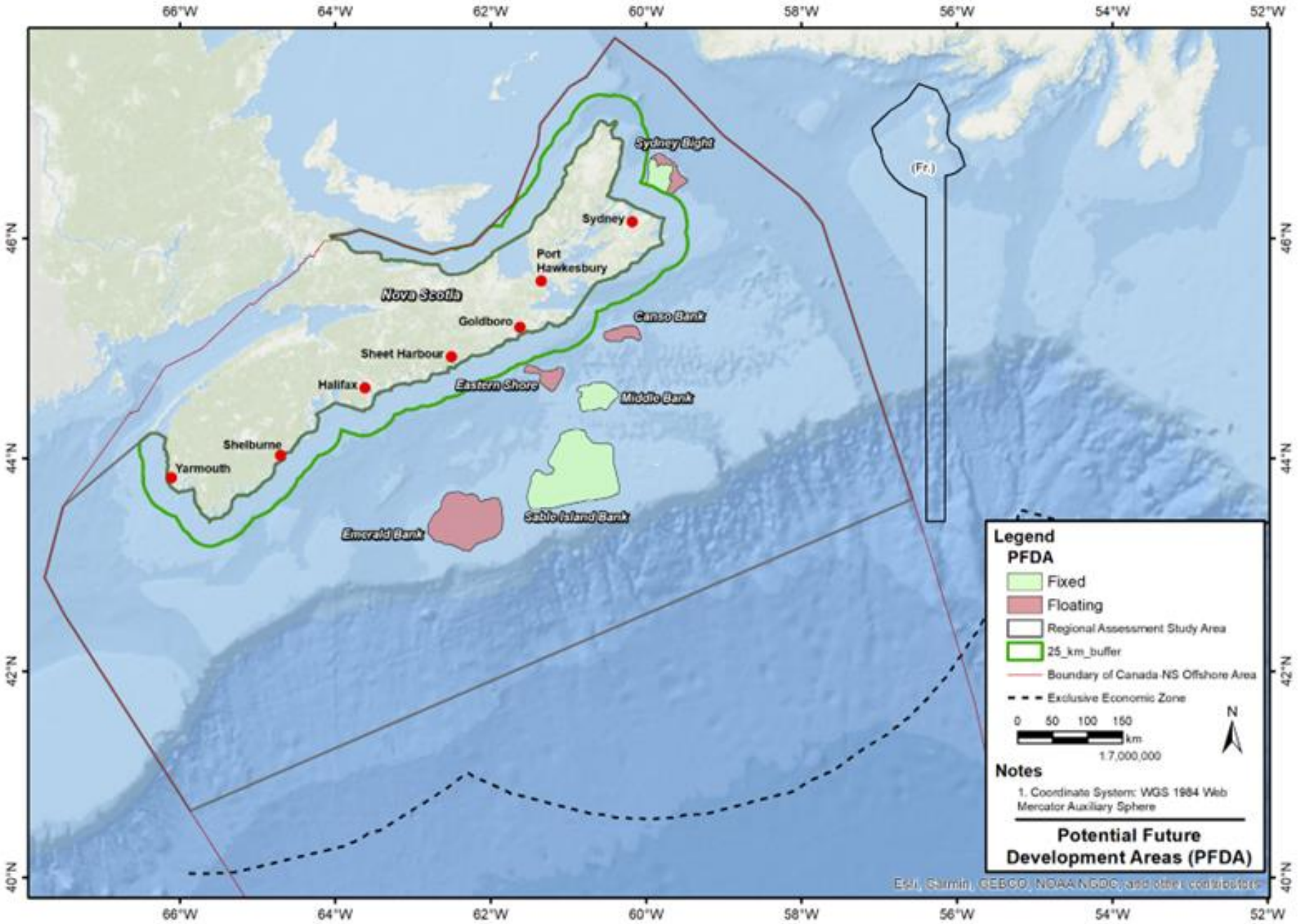


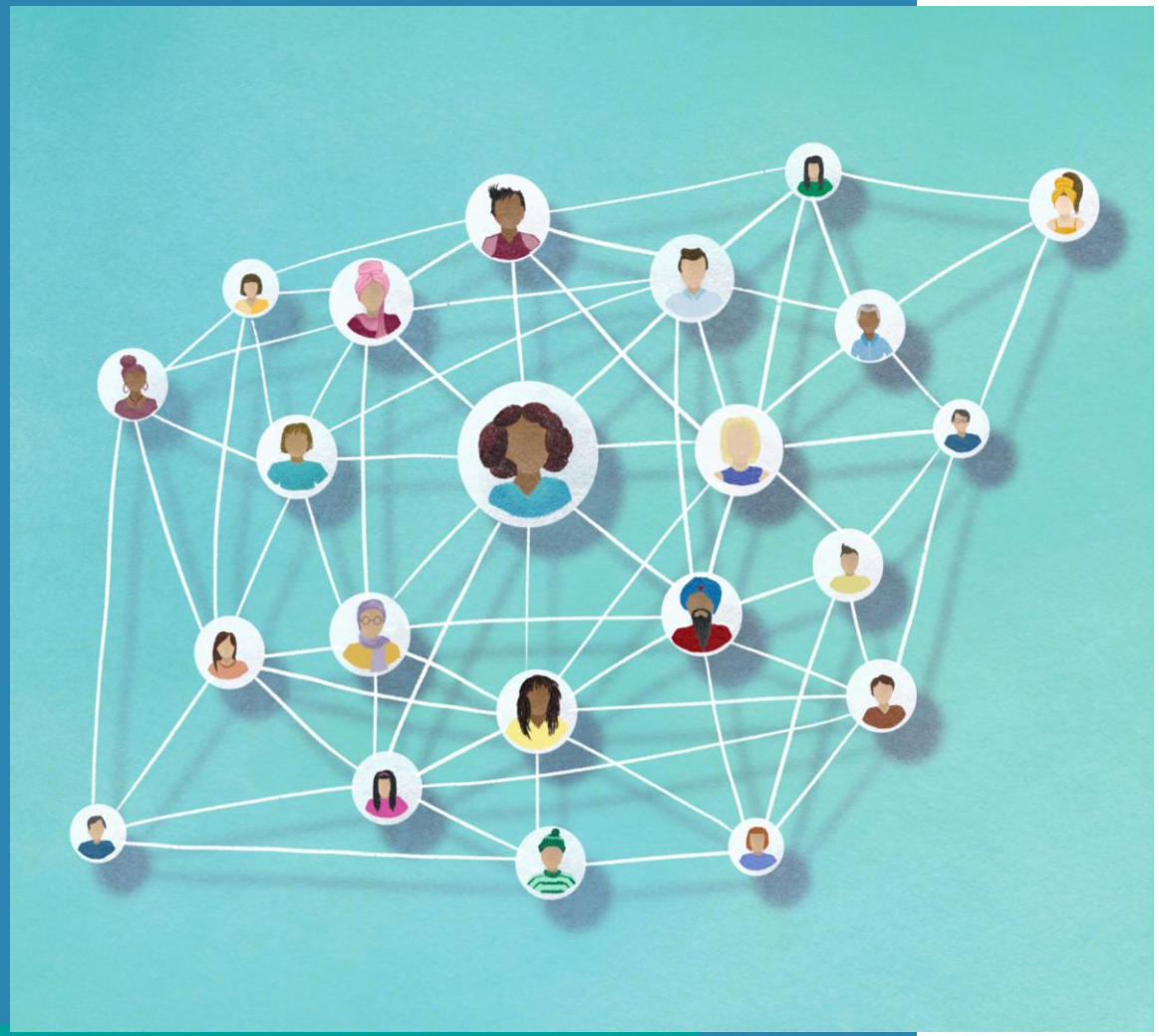
Implications for fisheries

Socio-economic and Indigenous cultural values

Potential positive and adverse effects

Regional Assessment Interim Report


66°W
64°W
62°W
60°W
58°W
56°W
54°W
52°W
46°N
44°N
42°N
40°N
Sydney Bight
(Fr.)
Sydney
Port Hawkesbury
Nova Scotia
Canso Bank
Goldboro
Sheet Harbour
Halifax
Eastern Shore
Middle Bank
Shelburne
Yarmouth
Emerald Bank
Sable Island Bank
Legend
PFDA
Fixed
Floating
Regional Assessment Study Area
25_km_buffer
Boundary of Canada-NS Offshore Area
Exclusive Economic Zone
0 50 100 150
km
1:7,000,000
N
Notes
1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
Potential Future Development Areas (PFDA)
Esri, Garmin, GEBCO, NOAA NGDC, and other contributors



Recommendation 1

Creation of a Nova Scotia Offshore Wind Collaborative Research Initiative to:

- Identify necessary research programs;
- Prioritize research and identify pathways to funding;
- Establish research timelines; and
- Use results to inform approval processes.

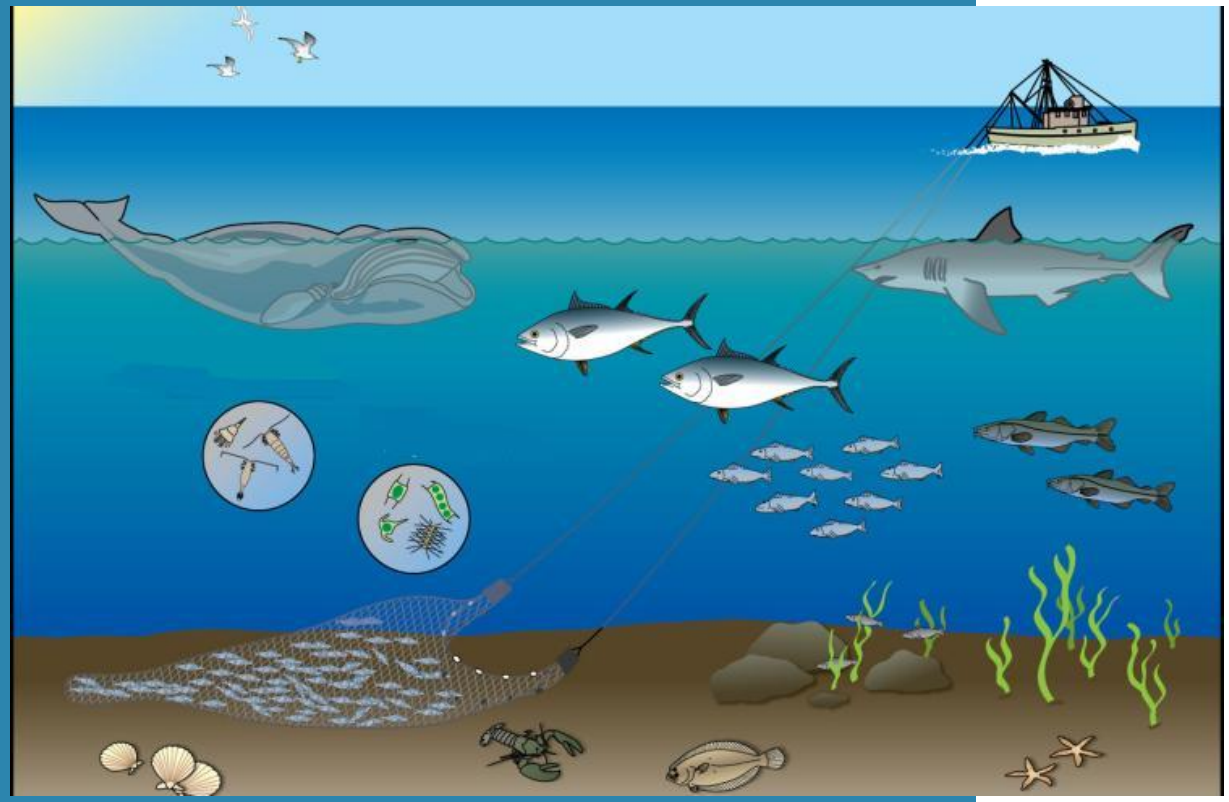


Figure Credit: NOAA

Recommendation 2

Avoid exempting proposed projects from the impact assessment process until the effects of offshore wind development on marine ecosystems and the fishing industry are better understood.

Figure Credit: Deepwater Wind, 2020.

Recommendation 3

- Create an offshore wind and fisheries coexistence working group.
  - Participants include RA Committee, government, CNSOER, commercial and Indigenous fisheries, industry, etc.
  - Undertakes a multi-jurisdictional analysis on key issues.

- Findings inform the Committee's Final Report.

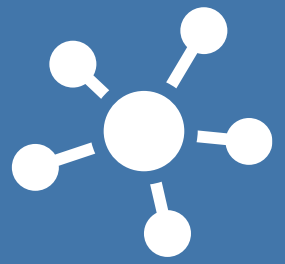
Next Steps

Spring 2024

Engagement Sessions and Meetings with Participants

Summer 2024

Drafting of the Final Report



September 23, 2024

Draft of Final Report for Review and Comment (60 Days)

January 23, 2025

Final Regional Assessment Report submitted to Ministers

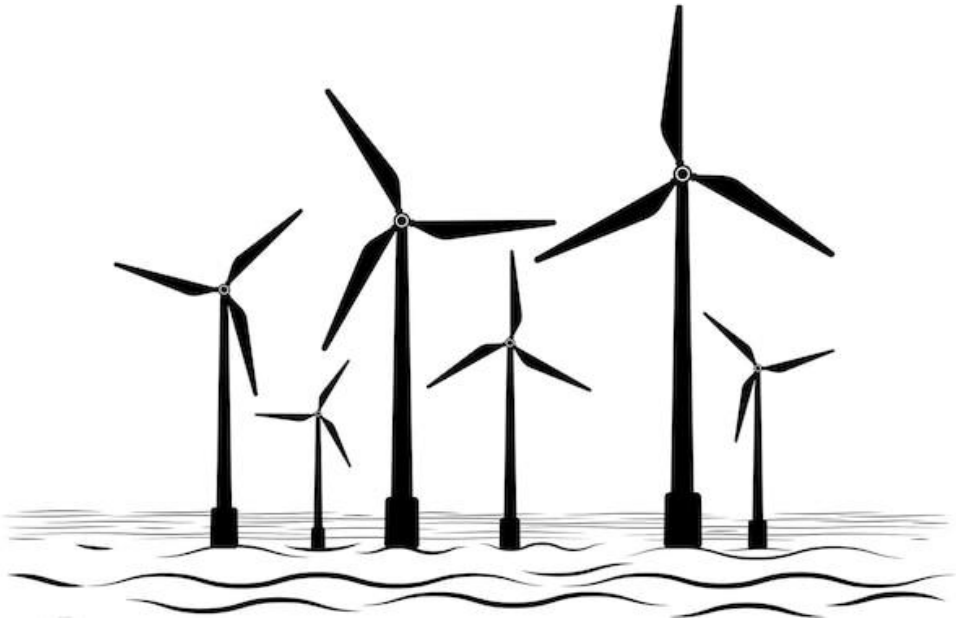
Fig. 2: Example of multi-use management of a wind farm. From Left to right: diving, scientific studies, aquaculture, fishing, tourism (© Denis Lacroix, Ifremer and Malo Lacroix)

Next Steps:

The focus of the next phase of the Regional Assessment will be identification of potential effects (positive and adverse) and mitigation and follow-up measures.

Issues and Concerns

- Air Quality and Greenhouse Gases (GHGs)
- Marine Fish and Fish Habitat (including species at risk)
- Avifauna (including birds, bats, and associated species at risk)
- Marine Mammals and Sea Turtles (including species at risk)
- Protected and Special Areas (established and proposed)
- Indigenous Communities, Activities, Interests, and Rights
- Fisheries and Other Ocean Uses
- Visual Aesthetics / Viewscapes and Acoustic Environments
- Physical and Cultural Heritage (including structures, sites or things of historical, archaeological, paleontological, or architectural significance)
- Health
- Communities, and
- Economy



Questions

Thank You Wela'lin Merci