

# Request for Proposals: Atlantic Wind Energy Supply Chain Assessment & Pathways for Supply Chain Development

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## 1.0 Project Background & Rationale

Atlantic Canada has some of the best offshore and onshore wind resources in the world, with wind speeds exceeding 9 metres per second. Developing even a small fraction of this resource can support net-zero targets, local supply chain development, and clean growth overall. Atlantic Canada is increasing its focus on developing both onshore and offshore wind resources to help green the grid and pursue domestic and export green hydrogen opportunities.

Offshore wind (OSW) and onshore wind present major opportunities for Canada – as a domestic and export resources that could be developed to support increased electrification and green hydrogen production, as well as a supply chain and trade opportunity for local suppliers who have capabilities from experience working in offshore and marine industries.

### ***Offshore Wind***

Atlantic Canada’s offshore represents a significant untapped renewable energy resource, with wind speeds of 10-11 metres per second and a technical OSW potential of 938 GW in Nova Scotia alone<sup>1</sup>.

To support the future development of OSW, federal and provincial governments have begun spearheading significant legislative and regulatory processes, including the establishment of a joint management by amending the *Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act* and *Canada-Newfoundland and Labrador Atlantic Accord Implementation Act* (“*The Accord Acts*”), the commencement of Regional Assessments (RA) for both offshore *Newfoundland and Labrador and Nova Scotia*, and the development of *Offshore Renewable Energy Regulations*. The Province of Nova Scotia has established an initial target of 5 GW of offshore wind leasing by 2030 with the intent to drive industry investment and growth, and Newfoundland and Labrador and the Federal Government have recently entered a Memorandum of Understanding on offshore wind to enable the province to take the regulatory lead on offshore wind projects within 16 provincial inland bays. These initiatives are progressing on ambitious timelines with a goal of beginning OSW leasing in Atlantic Canada this decade, and in Nova Scotia by 2025-2026.

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<sup>1</sup> Aegir Insights, 2023. “*Value Mapping Nova Scotia’s Offshore Wind Resources.*”  
<https://netzeroatlantic.ca/sites/default/files/2023-04/Value%20Mapping%20Nova%20Scotia%20Offshore%20Wind%20Resources.pdf>

**A critical component of ensuring sustainable growth of OSW in Canada will be the establishment of a capable and competitive supply chain to support industry requirements.** Atlantic Canada has the advantage of many experienced suppliers and services that have worked in offshore and marine

industries for decades, with some already working in the international OSW market. However, OSW is a relatively new industry for many businesses. Even those currently working in OSW elsewhere, may face challenges in terms of capacity and competitiveness when it comes to domestic development. The capabilities of the local supply chain will also factor into OSW developers' decisions on supplier contracts and partnerships and investment in the region, as well how project/leasing bids are structured.

At this early stage in OSW industry development there is general uncertainty about the scope of a domestic supply chain, the timeframes needed to build critical resources, the level of investment required, the potential benefits to local workers and communities, and the significance of gaps in the existing suppliers/services (ex. manufacturing, port, vessels, workforce, etc.). Therefore, a robust analysis of regional supply chain strengths and gaps is integral to successful industry development and ensuring local economic benefits. Supporting a domestic pipeline of OSW projects, as well as the opportunities posed by international OSW development, warrants the need for a study to: 1) better understand supply chain demand 2) assess existing strengths and gaps and 3) create an action plan to facilitate local supply chain development that will help maximize local benefits from OSW projects.

### ***Onshore Wind***

While onshore wind has been developed over the years in Atlantic Canada, this growth is expected to increase, driven by targeted plans launched by provincial governments over the past year. In 2022, Newfoundland and Labrador lifted its moratorium on onshore wind development and launched a competitive Crown Lands Call for Bids for Wind Energy Projects, placing approximately 1.7 million hectares of Crown Lands up for competitive development. As a result of that process, in August 2023, Newfoundland and Labrador announced over \$60 billion of private-sector onshore wind projects.

Although the onshore wind sector is more mature in Atlantic Canada than OSW, the increase in activity will require a skilled supply chain that has the capacity to deliver on project requirements. Provinces have been setting targets and undertaking policy initiatives for onshore wind development that must be met to meet clean electricity, net zero, and economic development goals:

- **New Brunswick's clean energy strategy [Powering our Economy and the World with Clean Energy – Our Path Forward to 2035](#)**: 1400 MW of new wind energy development by 2035
- **Newfoundland and Labrador's [Renewable Energy Plan](#); [removal of a moratorium on onshore wind development](#); and [design and implementation of](#) a process for [Crown Land for Wind Energy Projects](#)**: Four wind-to-hydrogen projects announced totalling over 14 GW of wind energy
- **[Nova Scotia's 2030 Clean Power Plan](#)**: 1000+ MW of new wind energy development by 2030

- **Prince Edward Island [Energy Blueprint](#)** and new strategy are under development and signal the need for more wind energy (onshore and possibly offshore)

## 2.0 Project Overview and Objective

Marine Renewables Canada (MRC), with funding support from the Atlantic Canada Opportunities Agency (ACOA), Nova Scotia Department of Natural Resources and Renewables, and Prince Edward Island Energy corporation is **requesting proposals from third-party consultants to lead a project that will help support an overall goal of developing a Canadian OSW supply chain and further growing capacity in the onshore wind supply chain in time to meaningfully support the installation of future OSW and onshore wind projects that will be in the pipeline** – onshore projects are already in queue and the OSW pipeline will begin with Nova Scotia’s leasing targeted for 2025-2026.

This project is intended to help industry, suppliers, governments, and other stakeholders strategically plan how to invest in local resources to both de-risk future deployments, establish a sustainable and self-sufficient industry and ultimately realize the significant benefits that can be achieved through an OSW and onshore wind industry in Atlantic Canada.

### 2.1 Project Objectives

The objective of this project is to identify and enhance Atlantic Canada’s OSW and onshore wind supply chain and workforce to maximize economic benefits to Atlantic Canada from domestic OSW and onshore wind development, as well as international development (export and trade opportunities). This effort seeks to optimize Atlantic Canada’s supply chain and workforce to fully realize the economic opportunities of OSW and onshore wind. Specifically, the objectives of this project are to:

- Define the scope of OSW and onshore wind supply chain (with a focus on development and production).
- Establish an understanding of the current status and capabilities of the Atlantic Canadian wind supply chain.
- Provide an analysis of industry requirements for domestic OSW and onshore wind development and associated supply chain needs.
- Deliver an assessment of the OSW and onshore wind supply chain opportunity for Atlantic Canada to inform an action plan to enhance the regions OSW supply chain position.
- Develop strategies and actions to:
  - Address supply chain gaps and challenges.
  - Support existing Atlantic Canadian OSW and onshore wind companies.
  - Engage regional companies not already engaged in OSW and/or onshore wind.
  - Develop a strategy for partnership building between companies and workforce and the OSW and onshore wind industry.

### 3.0 Project Scope

Recognizing that there are significant differences between OSW and onshore wind supply chains, the project will consist of two parts, focused on OSW and onshore wind, and a final part focused on results dissemination and supply chain engagement. The contracted consultant will be expected to review existing studies and analysis that are relevant to this project, and leverage and incorporate data and findings where appropriate (avoid re-inventing the wheel). The consultant will also be expected to avoid duplication of previously completed work and leverage research activities between OSW and onshore information gathering and analysis.

#### **PART 1: Offshore Wind Supply Chain**

As the OSW sector is less mature than onshore wind, it is anticipated that the supply chain assessment and analysis will require more time and effort by the contracted consultant. This work is broken into three main phases:

##### **1) OSW Industry Requirements and Supply Chain Demand**

With a focus on domestic (Atlantic Canadian) OSW project requirements based on several development scenarios for each province, an assessment should focus on the following elements that will provide critical analysis essential for the planning efforts of industry, local suppliers, governments, communities, stakeholders, etc.:

- a. Demand for major fixed and floating OSW components (turbines, foundations, cables, substations) and the vessel and port requirements to support those installation activities.
- b. Analysis of how demand for these components may change for different technology pathways and availability of the global supply chain.
- c. Estimate of total number of jobs required to support deployment scenarios under varying levels of domestic content.
- d. Provide detailed list of Tier 1, 2, and 3 components
- e. An overview of certifications required throughout project phases.

##### **2) OSW Supply Chain Assessment (Regional/Atlantic Canada)**

The second phase of the project should provide a deep analysis of the existing relevant suppliers and services in Atlantic Canada and their ability to support OSW development:

- a. Identification of Atlantic Canadian firms with potential OSW capabilities
- b. Analysis of how effective existing supply chain capabilities can be used to meet demand (i.e. adaptability)
- c. SWOT assessment of regional supply chain (strengths, weaknesses, opportunities, challenges)
- d. Readiness levels of existing suppliers to engage in domestic supply chain scenarios (ex. Type of business, location(s) and number of facilities, size of workforce, relevant or



transferable experience from similar industries, certifications and ability to obtain them, etc.)

- e. Analysis of opportunities for innovation, R&D and building a competitive advantage
- f. Analysis on opportunities for inclusivity in the OSW supply chain and how to support and foster diversity, equity and inclusion
- g. Evaluation of the range of outcomes: jobs and economic benefits, impact on project cost and logistics, benefits/effects on communities, supplier opportunities for Indigenous and rural businesses

### **3) Pathways to Develop Atlantic Canada’s OSW Supply Chain**

The third phase of the project should use analysis and findings from part one of the project, along with stakeholder input (industry, governments, suppliers, etc.), to develop recommendations for short- (2024-2025), medium- (2026-2030) and long-term (2030 and beyond) actions to facilitate regional OSW supply chain development. Key elements would include:

- a. Barriers and supports that could impact supply chain development including:
  - i. Factors that could prevent or delay supply chain expansion (ex. policy uncertainty, workforce needs, investment, certifications etc.)
  - ii. Existing programs and supports to facilitate supply chain engagement in OSW, as well as gaps in supports (possibly in comparison to other jurisdictions that are also working to build OSW supply chain)
  - iii. International and geopolitical factors
- b. Potential solutions to address barriers.
  - a. Pathways and action plan for short-, medium- and long-term supply chain development, outlining areas where local capacity and capability can be expanded upon, along with specific practical measures which local industry can lead.
  - c. Identification of the types of potential partnerships and joint ventures for local companies that may be practical to advance local capabilities and capacities.

## **PART 2: Onshore Wind Supply Chain**

### **2) Onshore Wind Industry Requirements and Supply Chain Demand**

With a focus on domestic (Atlantic Canadian) onshore project requirements based on several development scenarios for each province, an assessment should focus on the following elements that will provide critical analysis essential for the planning efforts of industry, local suppliers, governments, communities, stakeholders, etc.:



- a. Outline of requirements for development, construction and operation of large-scale onshore wind projects, based on the information available publicly on existing projects under development and projected for Atlantic Canada.
- b. Estimate of total number of jobs required to support deployment scenarios under varying levels of domestic content
- c. An overview of certifications required throughout project phases.

### **3) Onshore Wind Supply Chain Assessment (Regional/Atlantic Canada)**

The second phase of the project should provide a deep analysis of the existing relevant suppliers and services in Atlantic Canada and their ability to support onshore wind development:

- a. Identification of Atlantic Canadian firms with potential onshore wind capabilities
- b. Analysis of how effective existing supply chain capabilities can be used to meet demand (i.e. adaptability)
- c. SWOT assessment of regional supply chain (strengths, weaknesses, opportunities, challenges)
- d. Readiness levels of existing suppliers to engage in domestic supply chain scenarios (ex. Type of business, location(s) and number of facilities, size of workforce, relevant or transferable experience from similar industries, certifications and ability to obtain them, etc.)
- e. Analysis of opportunities for innovation, R&D, and building a competitive advantage
- f. Analysis on opportunities for inclusivity in the onshore wind supply chain and how to support and foster diversity, equity and inclusion
- g. Evaluation of the range of outcomes: jobs and economic benefits, impact on project cost and logistics, benefits/effects on communities, supplier opportunities for Indigenous and rural businesses

### **4) Pathways to Develop Atlantic Canada's Onshore Wind Supply Chain**

The third phase of the project should use analysis and findings from part one of the project, along with stakeholder (industry, governments, suppliers, etc.) input, to develop recommendations for short- (2024-2025), medium- (2026-2030) and long-term (2030 and beyond) actions to facilitate regional onshore wind supply chain development. Key elements would include:

- a. Barriers and supports that could impact supply chain development including:
  - iv. Factors that could prevent or delay supply chain expansion (ex. policy uncertainty, workforce needs, investment, certifications etc.)
  - v. Existing programs and supports to facilitate supply chain engagement in onshore wind, as well as gaps in supports (possibly in comparison to other jurisdictions that are also working to build onshore wind supply chain)
  - vi. International and geopolitical factors

- b. Potential solutions to address barriers
- c. Pathways and action plan for short-, medium- and long-term supply chain development, outlining areas where local capacity and capability can be expanded upon, along with specific practical measures which local industry can lead.
- d. Identification of the types of potential partnerships and joint ventures for local companies that may be practical to advance local capabilities and capacities.

### **PART 3: Knowledge and Results Dissemination**

The third part of the project will focus on providing the outcomes and learnings of the project to regional suppliers, industry, and key stakeholders. It is expected that the contracted consultant work closely with MRC to support the following knowledge dissemination activities:

- Project report(s)
  - Final report and any public-facing materials from the study
- Workshops
  - 3-4 in-person workshops within Atlantic Canada, featuring a fulsome presentation from the project consultant(s)
- Webinar
  - 1 webinar

## **4.0 Deliverables and Timelines**

This project is targeted to begin by July 30, 2024 and must be completed by February 28, 2025.

<b>Deliverable</b>	<b>Timing</b>
1. Project initiation/Kick-off meeting with contractor outlining project plan and timelines	August 5, 2024
2. Periodic meetings with Project Steering Committee and Advisory Group	To be determined based on project requirements and agreed upon schedule with contracted consultant
3. Interim Draft and mid-project presentation to Steering Committee	November 4, 2024
4. Final Report incorporating comments from Interim Report and additional assessment/analysis	February 28, 2025
5. Presentation/participation of Final Report at planned workshops (3-4) and webinars (1)	March – April 2025

## 5.0 Proposal Requirements

1. The proposal should be concisely worded with clearly described objectives, methods, timelines and outcomes. The budget must include a cost-task breakdown showing staff utilization by person and task, along with hourly or daily rates.
2. The proposal should be no more than 20 pages in length (not inclusive of cover letter or appendices). Proposals that are longer will be disqualified.
3. The proposal should include a brief description of the Respondent's company and its relevant experience with similar projects. The Respondent must also describe the relevant work experience of the staff assigned to this project and their roles. Please refrain from including excessive corporate or biographical information, including CVs in the main proposal.
4. Familiarity with Atlantic Canadian businesses/supply chain in the energy/ocean/offshore sectors, as well as a deep understanding of offshore and onshore wind project requirements and supply chain contracting is required.
5. This funding is open to non-Canadian entities as well as project teams consisting of Canadian and non-Canadian partners.

## 6.0 Budgetary Guidelines and Payment Schedule

The total project cost should not exceed \$326,000 CAD (before tax) and is inclusive of any travel costs for the contracted consultant to participate in results dissemination at 3-4 workshops in Atlantic Canada.

Payment will be made upon the proponent submitting invoices with supporting documentation in a form satisfactory to MRC.

Payment schedule is as follows:

- 25% upon signing of contract
- 50% upon submission of the Interim Report
- 25% holdback paid upon satisfactory completion of the project

## 7.0. Proposal Submission

The contracting organization for this RFP is MRC. A single electronic document is sufficient. Please include:

- One (1) Cover Letter** –signed by an officer or equivalent with signing authority to bind the Respondent to the statements made in the proposal.
- One (1) Proposal**– As described above.



The electronic copy in WORD and/or PDF format to be sent to Amanda White, Operations Director, MRC via email to [amanda@marinerenewables.ca](mailto:amanda@marinerenewables.ca) **no later than Friday, July 19 11:59 pm ADT.**

### 7.1 Questions and Clarifications

MRC will accept questions from interested applicants. All questions should be directed to Amanda White, Operations Director at MRC via email at [amanda@marinerenewables.ca](mailto:amanda@marinerenewables.ca) or phone at 902-717-0716.

### 7.2 Evaluation

Proposals will be quantitatively evaluated against a set of criteria by the Project Steering Committee. A weighting table is provided below. Applicants are expected to demonstrate fair value for money but please note that the lowest cost proposal will not necessarily be selected.

<b>Criteria</b>	<b>Value</b>
<b>Knowledge and Experience</b>	
Significant knowledge of Atlantic Canadian businesses/supply chain in the energy/ocean/offshore sectors <i>Note 1: Significant knowledge is defined by breadth and depth of knowledge</i> <i>Note 2: Must score at least 10/15</i>	15
Significant knowledge of offshore and onshore wind project requirements and supply chain contracting. <i>Note 1: Significant knowledge is defined by breadth and depth of knowledge</i> <i>Note 2: Must score at least 15/20</i>	20
Network of contacts within the offshore and onshore wind energy sector and in Atlantic Canada that can provide key information, support, and insight towards the project. <i>Note 1: Having a presence and/or partner in Atlantic Canada will be viewed as an asset.</i>	15
Demonstrated ability to successfully complete similar projects	10
<b>Quality of Proposal</b>	
Demonstrated understanding of the Project, its objectives and metrics for evaluation	10
Completeness and suitability of approach	10
Recognition of conflicts of interest and any problems, and creativity of solutions offered	5
Identification of in-market partners or collaborators (if/where deemed necessary)	5
Layout, organization and readability of proposal ( <b>20 page maximum, excluding cover letter</b> )	5
Cost <b>**</b> (in Canadian Dollars)	5
<b>TOTAL</b>	<b>100</b>