



# Clean Growth and Economic Opportunity through a Sustainable Blue Economy

A Submission to the Federal Government for Consideration in its Development of a Blue Economy Strategy

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# Introduction

The Newfoundland and Labrador Environmental Industry Association (NEIA) is pleased to have the opportunity to present a series of recommendations to Fisheries and Oceans Canada (DFO) in its development of a blue economy strategy for the country.

NEIA believes that there is an enormous opportunity for growth, diversification, and innovation for Canada and its provinces through a deliberate and strategic focus on sustainable, clean ocean economic development.

## **About NEIA**

NEIA is a not-for-profit industry association that promotes the development and application of clean technology and the growth of the green economy in Newfoundland and Labrador.

In pursuit of its business growth objectives, NEIA focuses its activities and initiatives in six (6) areas by providing: a support framework for entrepreneurs and startups; networks to help firms increase their productivity and competitiveness; tools to encourage and foster firm and sector-level innovation; export and international business development programming; training and professional development opportunities; and leadership on policy and advocacy issues.

Founded in 1992, NEIA now has over 200 members and has become the leading voice in Newfoundland and Labrador on clean growth, the green economy, and sustainable economic development.

NEIA's membership includes a wide variety of firms that operate in and around the ocean from a number of perspectives – whether that be through industry verticals (e.g. offshore oil and gas, fisheries, aquaculture, etc.), enabling sectors like marine transportation and ports, or through environmental characterization, protection, and/or climate change adaptation.

Much of Newfoundland and Labrador's economy is reliant on or related to oceanic activity. Thus, there are substantial opportunities to leverage the expertise and capacity that has been developed in this province in support of the expansion of Canada's blue economy.

## **Economic Recovery and ‘Building Back Better’**

The development of a blue economy strategy for Canada is not occurring in isolation. It is taking place at the same time as we look to the future and consider how our economy recovers from the devastating impacts of the COVID-19 pandemic.

As governments worldwide seek to stimulate economic recovery, there is a growing sense that investments should meet two tests: first that they contribute to economic activity and jobs right away; and second that they will provide longer-term benefits for the economy, the environment, and society. In short, economic recovery and ‘clean growth’ should go hand in hand.

NEIA agrees with this assessment and recommends that Canada embraces this philosophy as it positions its economic recovery priorities and develops a blue economy strategy. Clean growth not only provides environmental benefits, but also contributes to economic resilience in a world that is increasingly concerned with greenhouse gas emissions and environmental impacts.

In the Newfoundland and Labrador context, clean growth means helping our key industries improve their environmental performance to ensure their long term international competitiveness. It means taking advantage of our highly skilled onshore and offshore work force to make the transition to clean energy. It means taking advantage of our clean electricity grid and electrifying every feasible asset and process to the benefit of both the environment and the taxpayer and/or ratepayer. It means thinking big and finding a way to exploit our rich abundance of clean energy resources. It means helping our aquaculture industry meet its enormous potential to provide the world with sustainably produced seafood. It means preparing ourselves for a net zero future, and for the significant challenges – and enormous opportunities – that are associated with that.

Adopting a clean growth approach to economic recovery is also one of the most impactful things that we can do to energize and retain our workforce. Newfoundland and Labrador, and indeed Canada and the world, are facing very challenging times. It is going to be important to retain our best and brightest. There is broad public support for the protection of the natural environment, and adopting a clean growth approach to recovery fits with the growing belief - particularly with our youth – that economy and environment are not mutually exclusive considerations.

Approaching and aligning economic recovery with an explicit commitment to clean growth will energize and motivate this segment of the population – and provide significant opportunities for

economic development and growth in the process. All of the above is highly relevant in a country that is surrounded by three oceans, and for the people of a province like Newfoundland and Labrador that relies so heavily on the ocean for their livelihoods – either directly or indirectly.

### **Recommendations Informed by Engagements from 2019 – Present**

The recommendations NEIA are making are not in haste. Through 2019-20 NEIA has been engaged in the development of a strategy for growth for Newfoundland and Labrador's clean technology and environmental services sector. This process, in collaboration with provincial and federal governments, has included: a comprehensive review of relevant literature; an analysis of the innovation and support ecosystem; a review of best practices associated with clean growth strategies in leading jurisdictions; and extensive engagement with public and private stakeholders across economic sectors. While the conclusion of this process was disrupted by the COVID-19 pandemic, NEIA has substantial information from which it can make a series of informed and specific recommendations. These process were supplemented in 2021 by a series of engagements within its membership specific to the development of a blue economy strategy for Canada.

The clean growth opportunity is immense. Newfoundland and Labrador is blessed with a wealth of resources and is home to a budding technology sector that, through a deliberate and coordinated approach, can allow our province to become one of the 'cleanest' jurisdictions on the planet and help drive blue economic growth for Canada.

Let's put people to work today, building the blue economy of tomorrow. NEIA stands ready as a partner in the pursuit of any and all of the initiatives listed within this document.

## **Establish a Champion for the Blue Economy**

NEIA heard with regularity through its engagements that the Federal Government lacks an internal champion for the blue economy. Matters related to both economic development and the ocean by default would land in the domain of DFO.

However, DFO also serves as the regulator in these circumstances. It is inherently difficult for any entity to play both roles simultaneously. This has caused issues in several of the industries within

which NEIA members operate – from aquaculture, to marine renewable energy, to fisheries, to offshore oil and gas, etc.

It has been the experience of industry that the regulator role for DFO prevails. While the protection of Canada’s oceans is vitally important, NEIA’s members do not believe that it should be viewed competitively against economic growth. Environment and economy are not mutually exclusive objectives, and when considered to be – from either perspective – opportunities are lost.

Those jurisdictions around the world that pursue economic growth and environmental sustainability simultaneously with equal prioritization will lead the global green (and blue) economy. This is a difficult balance to strike; in order for Canada to achieve that balance it requires a champion within it for the economic side of the ocean equation.

## Support the Aggressive Pursuit of Net Zero within Oceans-Based Industries

A low-hanging fruit in striking that balance between environment and economy is the provision of direct supports for the decarbonization of oceans industries. The aggressive pursuit of net zero within oceans-based industries will not just help reduce greenhouse gas (GHG) emissions across Canada, but also drive the innovation and economic activity in a number of its key sectors.

In many cases, technologies and solutions already exist that help achieve improved environmental performance within industry. However, the adoption of these technologies can also be very capital intensive and uneconomical or highly disruptive. In other cases, technologies may not yet exist or are not fully commercialized. In this respect, there is a degree of risk associated with their adoption or piloting. In both cases, readily accessible programming can achieve environmental and economic outcomes simultaneously.

Ports play an intriguing role in the environmental performance, often up and downstream, of many different industries. The adoption of clean technologies within ports (e.g. electrified operations, use of hydrogen) can enable the mitigation of climate change impacts for a number of oceans industries simultaneously. A port modernization campaign could improve environmental outcomes and create economic opportunities across the country.

The same can be said for the role that marine transportation plays throughout the economy. Technologies exist that allow for the hybridization of vessel propulsion systems. Fully electric or hydrogen powered technologies have also been commercialized. In the same manner that subsidies have been made available for zero emissions vehicles on land, supports could be made available for the adoption of clean technologies within the marine transportation sector.

It is recognized that the Federal government has made available a variety of different supports that relate to reducing GHG emissions within industry. However, these supports are typically highly competitive, time-sensitive, and not necessarily tied explicitly to oceans industries.

2050 is less than 30 years away. The pursuit of net zero by this time period requires substantial strategy and planning for businesses of any size, not to mention entire industries. It is unrealistic to expect businesses to become aware of a program opportunity, put together comprehensive project proposals that align with their strategic priorities, and be prepared to compete within a window of opportunity that often lasts only several months.

Industries need consistent supports available to them that they can rely on to help make the transition to greener operations and view that journey through the lens of opportunity.

## Improving Regulatory Efficiency and Certainty

An important element in striking the appropriate balance between environment and economy is through the provision of clear, efficient, and consistently applied regulation. This can be a complex undertaking in ocean environments, where jurisdictional authority may be shared between Federal and Provincial governments.

Strong environmental outcomes and ensuring strong protections need not be achieved through long processes. Regulatory processes can be both effective and efficient. Canada must ensure that its regulatory processes are competitive on a global scale in this regard.

The most important consideration is clarity and certainty in how the regulations are ultimately applied. Unknown or elongated processes cost businesses money to navigate and can introduce substantial risk into projects or operations.

This is an especially important point when considering priority areas for Canada's blue economy strategy.

If on one hand, for example, the country is promoting (and perhaps even making its own) investment into economic development (e.g. marine renewable energy project or aquaculture development) – it must pay close attention to the regulatory framework that is associated with such activity.

Attracting investors only to introduce barriers as they move towards development is counterintuitive. For this reason, proactive work should take place to establish regulatory certainty in areas of significant potential. This includes both legacy industries and new and emerging ones like offshore wind, marine renewables, hydrogen, etc.

## Invest in Lighthouse Energy Projects

There are significant opportunities for large scale blue economy projects in Canada. Atlantic Canada, for example, features world-class offshore wind potential. There is a long list of tidal, wave, and waterpower resources throughout the region. All of which also present opportunities for the decarbonization of other major sectors (e.g. the electrification of Canada's offshore oil and gas operations, the electrification of remote mining operations and communities).

Canada is well positioned to support these kinds of major projects. Its private sector has a wealth of experience in ocean engineering, logistics, and supply chains. Its academic institutions are known globally for their expertise in supporting oceans industries with their research and development assets and resources.

In fact, businesses and institutions in Canada are already supporting major blue economy projects around the world. The expertise that Canadians have developed in and around the marine environment is being exported with frequency to support offshore wind, marine renewables, and electrification initiatives in other countries.

Canada should invest in a small number of large projects in its own backyard. Such 'lighthouse' projects serve a number of important purposes.



First, the pursuit of specific projects within Canadian waters would represent a direct investment into the growth of the country's blue economy; local companies will have the opportunity to provide local solutions for local projects. Where new solutions are needed due to unique local environmental challenges, mission-based research, development, and commercialization can take place through public/private/academic partnerships.

Second, lighthouse projects can kickstart new industries. Where greenfield projects can be risky, a lighthouse project can help establish supply chains, identify and address regulatory uncertainties, attract international interest and investment, and ultimately de-risk future associated activity.

## Environmental Characterization, Monitoring, and the Role of Data

It is often said that we know more about space than we do Earth's ocean. While this is an exaggeration, it does accentuate both the challenges and opportunities associated with creating a better understanding of our ocean environment. If two overarching objectives of Canada's blue economy are to be environmental and economic in their nature, both rely on better ocean data to predict and measure natural and anthropogenic environmental effects.

From the perspective of improving environmental performance, better data is required to establish benchmarks, and more data is required to be available in near real-time to understand the environmental effects of climate change and human activity. From the perspective of innovation, economic growth, and diversification, better access to data is required to address the environmental performance of industry and to de-risk future ocean industry investments.

In some cases this can be addressed by making the data that Federal Government departments and agencies already collect more readily accessible. In other cases this means addressing gaps in data acquisition for which technologies and processes already exist. While in other cases the acquisition of data has proven challenging, and technical or economical solutions have not yet been established.

Thus, the acquisition of data in and of itself represents a substantive blue economy opportunity for Canada. Atlantic Canada in particular is home to an unusually strong cluster of firms and

academic institutions with expertise and technologies related to ocean environmental sensing, monitoring, and characterization.

A high priority on the acquisition (and proliferation) of data can be supported by a strong foundation of capacity that already exists in the country, generate significant economic activity, while positioning Canada as an innovation leader in this aspect of the blue economy.

## Help Prove and Refine Technologies by Being an Early Customer for Canadian Businesses

Clean technologies are capital intensive in their development and typically have longer and more complex pathways through the technology readiness levels (TRLs) through to commercialization and onwards to international markets.

The Canadian government and its agencies can play a vital supporting role in accelerating blue economic activity by being more readily accessible customers of Canadian-made solutions and technologies. Having the appropriate mechanisms available to facilitate the piloting and demonstration of technologies can have a number of important impacts.

First, early customers provide vital revenue streams for companies that have high research and development expenditures with technologies that are not yet commercialized. Second, early customers can provide important insight and experience to innovators that allow for them to refine their technologies and services.

Finally, on the world stage when businesses can reference that their own government is a customer, this improves how their technology is perceived. Conversely, when businesses are attempting to export their technologies for which there are obvious Canadian applications, the absence of the government customers can raise questions for potential buyers.

Canada has made progress in this regard in recent years, specifically with its *Innovative Solutions Canada* initiative. Canada should pursue continuous improvement and expansion in this space. With major oceans operations being government-led (e.g. science, defence, transportation), Canada has a special responsibility to enable what private sector opportunities that it can.

## Continue Support for Canada's Ocean Supercluster

In just a few short years, Canada's Ocean Supercluster has had a profound impact on the country's blue economy. The organization has attracted investment, interest, and created awareness for Canada's ocean industries on a scale not seen before.

As a member of the Ocean Supercluster, NEIA has seen first-hand the momentum that has been generated within the sector – particularly in 2020-21. NEIA's members are concerned that just as the Ocean Supercluster begins to reach its full potential, its operations will begin to wind down as it reaches the conclusion of its original mandate.

As Canada creates its blue economy strategy, it should recognize that it has already accomplished a great deal through the creation of the Ocean Supercluster. The Ocean Supercluster (and the initiatives it supports, including the Ocean Startup Project) should be viewed as a key asset for Canada in the development and execution of its blue economy strategy on a go-forward basis. Further, the Ocean Supercluster should be considered as an ideal delivery mechanism for industry-facing supports and programming that emerge.

## Conclusion

The ocean is central to the culture and economy of Newfoundlanders and Labradorians. Our exploration of the ocean and the harvesting of its resources has sustained the lives of those that have lived on these lands for as long as we can trace our history.

Our engagement with the ocean has resulted in substantial innovation; Newfoundland and Labrador is home to world class industries and businesses and institutions that export their technologies and expertise to every corner of the earth.

NEIA sees substantial opportunity for economic growth for Newfoundland and Labrador, and by extension Canada, through the execution of a blue economy strategy.

The aggressive pursuit of net zero within our existing ocean industries presents opportunities for new investment, and the development of new technologies and processes that can be internationalized.

Strategic data acquisition, regulation, and procurement pursued through the dual lens of environment and economy are important enablers that must be continuously improved upon.

And new industries, such as offshore wind energy, other marine renewable energy industries, and hydrogen production are significant opportunities that are waiting to be unlocked.

NEIA believes that the future is bright for Canada's blue economy, and commends the Federal government for setting out to develop a strategy that will help the country meet its potential. NEIA stands ready to provide additional guidance and/or assistance should the opportunity be provided.