



Newfoundland and Labrador
Environmental Industry Association

A New Climate Change Strategy for Newfoundland and Labrador

A Submission from the
Newfoundland and Labrador
Environmental Industry Association
(NEIA)

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Soon, when Muskrat Falls comes online, 98% of electricity generated in Newfoundland and Labrador will originate from renewable and low-emissions sources. For this reason, the path to lowering greenhouse gas emissions (GHGs) is not as direct as in other provinces. Newfoundland and Labrador also faces significant fiscal challenges, limiting the capital available for investment in GHG reduction activities.

Therefore, an effective climate change strategy for Newfoundland and Labrador must be customized to reflect these conditions – taking action where demonstrable GHG reductions can be achieved.

NEIA's recommendations come from direct engagement with its membership, partners, and other green economy stakeholders. This document will focus on recommending activities the government can undertake to: reduce GHGs; address concerns with electricity generation; increase resiliency in a changing climate; empower Newfoundland and Labradorians to contribute; and provide the leadership necessary to drive change. Throughout this submission is a focus on innovation and economic growth and diversification.

Reducing Greenhouse Gas Emissions

After Muskrat Falls comes online, the largest contributors to GHGs in Newfoundland and Labrador will emanate from large industry, transportation, building fuels, and waste. Therefore, a climate change reduction strategy should focus on GHG reductions which have tangible impacts in these areas. The following recommendations address opportunities in each category, and also explore how a carbon pricing system could be designed for the province.

Large Industry

There are a limited number of 'large industry' emitters in the province, but they are responsible for 36% of the province's GHGs. Many of these activities are being addressed by the government's recent legislation "*An Act to Regulate Greenhouse Gas Emissions from Industrial Facilities in the Province*" which was introduced in the Spring of 2016. This act, however, does not include offshore oil and gas activities where jurisdiction is shared between the province and the Federal government.

Action Recommended: *Newfoundland and Labrador to work immediately with the Federal government and offshore operators to develop GHG regulations for the oil and gas sector. Regulations should be based on the same framework as of large industry emitters – e.g. emitters can acquire credits through contribution to the Newfoundland and Labrador Greenhouse Gas Reduction Fund or local offset projects with demonstrable GHG reductions.*

A new federal and provincial focus on GHGs and environment will be accompanied by new supports for the development and application of clean technology. Clean technology can be viewed as any product, service, or process that reduces negative environmental impacts. This can often be achieved through finding new efficiencies. New supports will provide funding mechanisms for firms to acquire and innovate clean technologies, however those operating in industries not typically associated with 'environment' often do not consider their operations as being suitable or related to clean technology.

Action Recommended: *Newfoundland and Labrador to work with its industry partners, sector by sector, to create a greater awareness and understanding of clean technology opportunities.*

New legislation addressing GHGs from industrial facilities includes reference to a *Newfoundland and Labrador Greenhouse Gas Reduction Fund* and the opportunity for emitters to acquire credits through the contribution to local offset projects.

Action Recommended: *Newfoundland and Labrador to work with the environmental sector in the development of its technology fund and offset program regulations to ensure the maximization of business opportunity for local firms and perpetual, broad reaching benefits.*

Transportation

'Transportation' accounts for 34% of Newfoundland and Labrador's GHGs and, aside from large industry, is the biggest source of emissions in our province. Transportation emissions arise from the movement of goods, services, and people from one location in the province to another.

Electric Vehicles

59% of transportation emissions arise from cars and busses on-road. This source of GHGs must be addressed in a climate change strategy, and a strong component of this plan should be electric vehicle (EV) adoption. From a financial perspective, EVs are a proven technology which provide value through fuel savings and lower maintenance costs.

In the context of Newfoundland and Labrador's 98% renewable energy framework, each single adoption of an EV (1) reduces per unit emissions to near zero, and (2) adds new demand for electricity from the utilities. Rapid advances in technology and adoption will continue to drive down costs, making EVs even more economical. Electric trucks and busses are also beginning to hit the market.

Widespread adoption of EVs in Newfoundland and Labrador can have a significant positive impact on the province's GHGs. To prepare for an increased adoption of EVs, the province must support the implementation of EV infrastructure.

Action Recommended: *Newfoundland and Labrador to work with public and private partners to install EV charging infrastructure strategically throughout province with eye to widespread adoption.*

Action Recommended: *Newfoundland and Labrador to provide supports to businesses, institutions, municipalities, and other organizations who wish to install EV charging stations on their properties.*

Action Recommended: *Newfoundland and Labrador to work with vehicle retailers to ensure appropriate maintenance expertise exists within province for EVs.*

The province can influence the demand of EVs, and the rate of adoption, through a variety of incentives and disincentives, including (but not limited to):

Action Recommended: *Newfoundland and Labrador to provide rebates or tax advantages to those who purchase EVs. Given one EV can equate to approximately 5 tonnes of GHG reductions per year (plus an increased consumption of electricity), consumer rebates provide great value for the province.*

Action Recommended: *Newfoundland and Labrador to tie vehicle registration charges directly to a vehicle's rated fuel consumption. Consumers making*

environmentally sound choices will be rewarded, while consumers choosing vehicles with less efficiency are penalized and educated in the process.

Action Recommended: *Newfoundland and Labrador to support the transition of public and private fleets to EV technology, including assistance in the development business cases for interested organizations. Taxis, civic vehicles, delivery vehicles, etc. spend many hours on the road and their operators could benefit from the decreased costs associated with an EV fleet.*

Without intervention, a problematic cycle exists: the lack of infrastructure deters car buyers from deciding electric, while the lack of EVs on roads stifles demand for infrastructure.

Public Transportation

Another approach to reducing GHGs associated with transportation is to reduce the number of vehicles on the road. With much of the province's population living in the Northeast Avalon region, there is an opportunity to reduce emissions through the implementation of stronger public transportation systems in the region.

Provincial leadership is required to move this issue forward. Despite continued public interest, municipalities in the region have been unable to work together on a public transportation strategy. The approach by the service provider in the City of St. John's (Metrobus) of attempting to grow services from the capital city outwards has proven to be unsuccessful. It is challenging for each individual municipality to view public transportation through a regional lens. As in other Canadian jurisdictions, provincial government leadership is needed to establish and support a regional public transportation service.

Action Recommended: *Newfoundland and Labrador to provide the leadership and resources required to develop a new regional public transportation system for the Northeast Avalon.*

It is important to remember that petrol-powered busses will only achieve significant GHG reductions if ridership reaches a critical mass.

Action Recommended: *New regional public transportation system to include express routes, park and rides, and participation incentives to demonstrate clear advantages to this mode of transportation to the public and grow ridership.*

Action Recommended: *New regional transportation system to replace busses as they are retired with electrical counterparts (once economical), with the intent to fully electrify the fleet.*

Advances are being made in the delivery of public transportation in rural areas.

Action Recommended: *Newfoundland and Labrador to investigate successful models of public transportation in rural areas and assess their transferability to regions in the province.*

Aside from strictly environmental considerations, there are many reasons to lead the development of an efficient public transportation system, including:

- Efficient public transportation links resources, contributing to the ease of knowledge transfer and idea sharing – and is a factor in the innovative potential of an economy
- Efficient public transportation facilitates labour mobility, while helping ensure potential workers can reach employers regardless of their ability to own a vehicle

- Efficient public transportation mitigates the negative economic symptoms of aging transportation networks – congestion, disconnection, and urban sprawl
- Effective public transportation infrastructure encourages economic development along frequently used routes and corridors
- Effective public transportation discourages urban sprawl, contributing to increased efficiency in municipal service delivery
- Increased use of public transportation reduces the land use pressures imposed by passenger vehicle use on municipalities – e.g. parking spaces, more and wider roads.

Use of Diesel

18% of transportation GHGs are emitted from freight on-road, much of which would be from diesel engines. In addition, 9% of transportation GHGs emanate from off-road diesel activities. There may be opportunities to reduce the emissions resulting from diesel use with the introduction of bio-fuels to the local market.

Action Recommended: *As per the 2011 Report “An Analysis of the Economic Development Opportunities Associated with the Green Economy in Newfoundland & Labrador”, Newfoundland and Labrador to develop and implement a liquid bio-fuels strategy which identifies the most promising pathways for bio-fuels production and opportunities to grow the local market. Any bio-fuels program should ensure there is a net reduction in GHGs.*

Support Research Addressing Efficiency of Marine Transportation

6% of transportation emissions can be attributed to domestic marine activities. While this represents a small portion of the province’s overall GHGs, solutions developed in this area can be exported to other marine centres worldwide.

Action Recommended: *Newfoundland and Labrador to support research, development, and entrepreneurship focused on efficient marine transportation technologies and processes, building on the province’s excellence and range in ocean technology development.*

Building Fuels

9% of NL’s greenhouse gas emissions originate from the use of building fuels, which is divided near equally between residential and commercial/institutional. The province can take a three-pronged approach to tackling this issue.

Reduce the Use of Building Fuels

The province can encourage the reduction of fossil fuel use in buildings through a number of initiatives.

Action Recommended: *Newfoundland and Labrador to introduce incentives for home and building owners to convert to more renewable heating technologies, e.g. electric, geothermal, or biomass.*

Action Recommended: *Newfoundland and Labrador to implement GHG standards in building codes to discourage the implementation of fossil fuel heating systems in new builds.*

In some industrial buildings, furnaces are presently being used to generate heat from waste oil from diesel, hydraulics, or transmissions systems. These hazardous materials create GHGs and other toxic gasses, and should be disposed of according to hazardous waste management best practices.

Action Recommended: *Newfoundland and Labrador to ban waste oil burners and offer supports to existing users to implement more efficient and environmentally sustainable heat sources.*

Support Energy Efficient Measures Aimed at Those Using Building Fuels

Energy efficiency measures are an important component in a provincial climate change strategy. Given that 98% of the province's energy will soon be provided by renewable sources, energy efficient measures should be focused on those using fossil fuels to heat homes and buildings.

Action Recommended: *Newfoundland and Labrador to mandate the inclusion of fossil fuel heating service providers in the TakeCharge! program or a similar construct, to make the program's energy efficiency financing opportunities (relating to heat) available to fossil-fuel heating customers.*

Action Recommended: *Newfoundland and Labrador to support firms reducing their GHGs through the installation of on-site small scale renewable energy generations (see section: 'net metering').*

Action Recommended: *Newfoundland and Labrador to require recent energy audits as part of the sale of homes and buildings to education consumers on the importance of energy efficiency and how it impacts their finances and the environment.*

Support the Providers of Building Fuels and Services

The providers of building fuel infrastructure and services will be negatively affected by the above measures, and need to be provided an opportunity to advance innovation in the heating industry and develop services which have lower GHG emissions.

Recommended Action: *Newfoundland and Labrador to provide supports for fossil fuel heating service providers to research, develop, and commercialize more efficient or environmentally sustainable services.*

Waste

'Waste' is responsible for 8% of Newfoundland and Labrador's greenhouse gas emissions. The most significant GHG produced from waste is methane which is released during the breakdown of organic matter in landfills.

Action Recommended: *Newfoundland and Labrador to accelerate plans to address organic waste management, with GHG emissions a primary consideration in developing solutions.*

Action Recommended: *Newfoundland and Labrador to provide aggressive new incentives for firms to address industrial waste. Solutions developed in rural, remote, and island settings are exportable to other regions facing similar challenges in economies of scale and geography.*

Action Recommended: Newfoundland and Labrador to assist municipalities in developing waste management programs for commercial and multi-dwelling units. Increased diversion will prolong the lifespan of landfills and generate broader environmental awareness.

Carbon Pricing

As a signatory to the Paris Agreement on Climate Change in 2015, the Federal government has an aggressive interest in reducing Canada's GHGs. It has sent signals to its provinces that carbon pricing may be applied arbitrarily where programs are not developed within jurisdictions. Therefore, it is in Newfoundland and Labrador's best interests to develop its own carbon pricing mechanisms which it can customize to the intricacies of its economy, control as variables change, and choose where benefits are directed.

Given the province's recent legislative activities aimed at capping emissions for large industrial emitters, the reasonable approach to apply broader carbon pricing on the economy is through a carbon tax on fossil fuels. This creates a predictable framework for businesses to operate within, low management costs, and also provides incentives at the consumer level to make sustainable decisions. Carbon pricing has been shown to be the most practical and cost-effective way to lower greenhouse gas emissions – while encouraging low-carbon innovation.

Action Recommended: Newfoundland and Labrador to reposition a portion of the provincial gas tax as a carbon tax and apply it on other fossil fuel purchases.

It is important that the public understands where revenue from a carbon pricing program will be applied. Revenues should not be absorbed in to the general provincial coffers. If the intent of applying a price to carbon emissions is to reduce overall GHGs, revenues from the program must be used in direct support of GHG reduction initiatives. This is particularly true with a carbon tax, where actual emissions reductions depend on consumer sensitivities to prices.

Action Recommended: Newfoundland and Labrador to publicly account for carbon tax revenues and directly, wholly, and transparently apply them towards initiatives outlined in its new climate change strategy.

Electricity

The introduction of power from Muskrat Falls will put Newfoundland and Labrador in the enviable position of generating 98% of its electricity from low GHG-emitting, renewable resources.

However, there are issues with the current energy framework. First, the cost of electricity is expected to increase significantly. Second, dated energy legislation in the province is causing hardship for industry. These issues must be addressed in a new provincial climate change strategy.

Cost of Electricity

It is important that Newfoundland and Labrador control the price of electricity generation for the long term. If the costs of electricity significantly rise for consumers, the advantages of the province's 98% renewable energy mix evaporate. Developers and consumers will choose fossil fuels as the preferred heating source, which will have two effects: (1) it will increase the

province's GHGs; and (2) it will reduce the demand for electricity – which could potentially serve to further increase its costs. This cycle of activity could become dangerous for Newfoundland and Labrador. It is in the province's interests, both from an environmental and financial perspective, to encourage (and not discourage) the electrification of infrastructure.

Action Recommended: *Newfoundland and Labrador to control the price of electricity to ensure its competitiveness, and signal this policy direction in the short term to discourage the adoption of fossil fuel heating systems.*

See sections: 'electric vehicles' and 'building fuels' for related recommendations.

Renewable Energy

Newfoundland and Labrador's archaic energy policies are out of step with those in the rest of North America and are putting local firms and industries at a competitive disadvantage nationally and internationally.

Net Metering

Net metering policies were promised ten years ago in Newfoundland and Labrador's 2007 Energy Plan. The continued delay in the introduction of programming is now having a tangible negative and lasting effect on businesses in the province:

- Local firms are unable to invest in small scale renewable energy technologies to increase the efficiency of their operations, putting them at a competitive disadvantage against businesses in other parts of Canada and the world;
- Local firms engaging in export and international business activities are unable to demonstrate the compatibility of their products and services with small scale renewable energy technologies as the infrastructure and expertise does not exist 'back home'. This puts them at a disadvantage with international competitors in a world that has become very interested in clean and sustainable systems; and
- A new federal focus on clean technology has opened the door to many new opportunities in the renewable energy field – research, development, and commercialization funding opportunities which are passing over Newfoundland and Labrador.

From an environmental perspective, net metering programming would allow buildings and homes powered and/or heated by fossil fuels to reduce their emissions.

Action Recommended: *Newfoundland and Labrador to work with its partners to expedite processes and immediately introduce net metering programming. As the framework was announced in 2015, and such programs exist in almost every North American jurisdiction, the introduction can be swift.*

Replacement of Diesel Systems in Remote Areas

Remote communities continue to be powered by diesel generation to the detriment of both the environment and the economy. Technology and services exist today which are environmentally sustainable and can eliminate costs associated with the purchase and transportation of fuels in to isolated regions.

Action Recommended: *Newfoundland and Labrador to replace or augment diesel generation in remote and isolated communities with renewable energy systems.*

Other Renewable Energy Policies

There are types of large industry which through the nature of their operations (e.g. farming, composting, or forest harvesting) have the potential to generate significant electricity. In other jurisdictions, these industries would be able to generate that electricity and sell it as a utility or sell it directly to a utility. As this practice is not allowed in Newfoundland and Labrador, industry located in the province finds itself at a disadvantage competing on cost when the bottom lines of competitors benefit from such sales. This is an obstacle in industry / business attraction and retention. It is an environmental concern as the alternative to this energy generation in some cases is waste – ‘waste’ in the form of GHGs.

Action Recommended: *Newfoundland and Labrador to modernize energy legislation and regulations to allow for the generation and sale of electricity in specific cases where environmental benefits are accrued from generation.*

There are significant opportunities in Newfoundland and Labrador for green energy developments in wind and tidal – opportunities being pursued by local firms. In the current legislative framework, these firms must look beyond provincial borders to advance their technologies and business models. This inhibits development, investment, and innovation in green energy within our province. The solutions developed here could not only provide economic growth and diversification domestically, but also be exported (as a technology or as electricity through the Maritime Link) for the benefit of the environment beyond our provincial borders.

Action Recommended: *Newfoundland and Labrador to work with local firms in the development of renewable energy projects and enable their success where economic development opportunities exist.*

Green energy development is taking place rapidly worldwide and is becoming integrated in to more and more processes. The longer Newfoundland and Labrador keeps its doors closed to modern energy programming, the larger the technology and knowledge gap between our province and other jurisdictions – and the more exacerbated the problems will become for local firms.

Empowering Businesses to Contribute

Individuals, groups, and communities can have a significant impact on environmental and business issues if the opportunities are present. Sometimes, however, there are barriers in place which prevent action or progress. These barriers can take the form of: rules and regulations; a lack of resources; information gaps; stakeholder education; etc. The following opportunities to empower and enable firms to contribute to reducing GHGs in Newfoundland and Labrador can be addressed in a new climate change strategy.

Procurement Reform

Dated public procurement policies act as barriers to success for local firms. Current policies are in cases structurally excluding the products and services of local firms, denying them the opportunity for significant business despite the possible superiority of their offerings.

Specifically to environmental products and services, government is seeking validation of environmentally friendly products and technologies that are already widely used in other jurisdictions. Environmental products and services that introduce new efficiencies are often different and innovative in their application or may even disrupt a supply chain. Without their own government as a previous client, local firms are encountering credibility issues when engaging in business activities outside of the province.

It is NEIA's view that many of these issues are caused by processes which delineate a project or product in exact terms, e.g. defining not just the final deliverable but also how that deliverable should be achieved. This eliminates new ideas and alternative solutions from the outset, and discourages innovative thinking.

Work has already been done within government in the preparation of new public procurement policies. NEIA supports the direction that these proposed policies have taken, given that they recognize the importance of the following:

- 'Environmental Impact' being Explicit as a Value Consideration
- A Focus on Desired Outcomes while Avoiding Prescribing Processes
- Strategic Deconstructions of Bundled Procurement
- Supplier Engagement and Communications throughout the Process
- Avoiding Lock-In
- Workforce Education to Ensure Public Officials Understand New Processes
- A Commitment to Continuous Improvement

An additional advantage to including *environmental impact* explicitly within the procurement process is that government will be able to, over time, track the GHG reductions it has been able to achieve through reformed processes.

Action Recommended: *Newfoundland and Labrador to introduce new public procurement legislation in 2016.*

More information on NEIA's recommendations for reform of the public procurement process can be found in a detailed submission to Government in June of 2016.

Private Sector Supports

Taking action to address GHGs will introduce new challenges for local industry – be it in mining, manufacturing, oil and gas, fishery, etc. – to reduce costs and be more competitive. It will also provide new opportunities for firms who provide clean technology products and services. A climate change strategy should recognize that, in both cases, support will be required for the private sector to meet reduction expectations and growth potential.

Supports for Industry

Investing in new technology is risky. As 'clean technology' is a relatively new idea for those outside of environmental industries, there is an uncertainty related to what clean technology is and how it can impact their organizations.

Action Recommended: *Newfoundland and Labrador to work with its industry partners, sector by sector, to create a greater awareness and understanding of clean technology opportunities.*

Action Recommended: *Newfoundland and Labrador to provide incentives and financial supports to mitigate risks for firms who engage in research, development, and*

acquisition relating to clean technology and increased resiliency. This can be done through the new Newfoundland and Labrador Greenhouse Gas Reduction Fund or a separate mechanism.

Action Recommended: *Newfoundland and Labrador to reward firms who acquire clean technologies that provide demonstrable GHG reductions.*

Supports for the Local Green Economy

As industry is regulated and becomes more aware of the opportunities relating to environmental efficiencies, new opportunities will arise for local firms to provide solutions. The government can work proactively with local firms to make them aware of emerging opportunities within industry. Solutions developed in Newfoundland and Labrador can be marketed to industry worldwide.

Action Recommended: *Newfoundland and Labrador to facilitate the connection of opportunities within industry with local product and service providers. Financial supports will be provided to aid in research, development, and commercialization of new solutions. This can be done through the new Newfoundland and Labrador Greenhouse Gas Reduction Fund or a separate mechanism.*

Action Recommended: *Newfoundland and Labrador to afford support to local firms to establish empirical evidence that their products or services provide demonstrable GHG reductions.*

It must be ensured that any future offset program or funding mechanisms recognize the strengths and needs of the local green economy. Intricacies exist with the sector which, if unknown during the drafting of regulations, may negatively affect a firm's ability to participate in programming despite the superiority of a product or service. For example, an initiative to increase the use of energy efficient elements during the construction phase should logically include solutions that eliminate the need for electricity from the outset.

Action Recommended: *Newfoundland and Labrador to work closely with its federal government partners to design clean technology programming which complements and/or enables (rather than competes with) national programs and supports.*

Action Recommended: *Newfoundland and Labrador to work with the environmental sector in the development of its technology fund and offset program regulations to ensure the maximization of business opportunity for local firms.*

The proactive use of pilot projects can provide great benefit to local firms engaged in the development of new solutions. The increased use of pilot projects will contribute to the local economy, support innovation, provide local firms with a government client (a critical influencing factor when conducting international business), and also afford the local firm with important real-world feedback on their product or service. The Government of Canada's Build In Canada Innovation Program (BCIP) can be used as a model; local firms have accessed the BCIP and have found it valuable.

Action Recommended: *Newfoundland and Labrador to implement the use of pilot projects across its departments and agencies as a common approach to solving challenges.*

Government Leadership

The Government of Newfoundland and Labrador is a very large organization which employs many. As a result, its environmental footprint is also significant. It is estimated that the government, through its operations, is responsible for about 2.5% of total provincial emissions. Municipal governments also contribute to climate change, and it is estimated that they are responsible for 0.9% of total provincial emissions - and that number is increasing.

Governments construct and/or occupy buildings. Governments purchase many goods and services. Governments make choices on investments and infrastructure. Governments educate and interact with people. As a result of the scale at which governments operate, they can have significant influence. A climate change strategy should include commitments by the government to make environmental advancements in its own activities.

Walk the Talk

If the private sector and public are expected to contribute to reducing GHGs by funding programs, paying new carbon taxes, adhering to new legislation, changing behaviours, etc., it is incumbent on the provincial government to commit to addressing GHG emissions related to its own operations.

Transportation

Action Recommended: Newfoundland and Labrador to replace fleet vehicles, as required, with EVs.

Action Recommended: Newfoundland and Labrador to support public sector employees who are adopting EVs by installing charging stations strategically on government properties.

Action Recommended: Newfoundland and Labrador to provide incentives and encouragement for public sector employees who use public transportation.

Building Fuels

Action Recommended: Newfoundland and Labrador to invest in electric retrofits, energy efficiency upgrades, and/or small scale renewable energy generation where public properties are using fossil fuels for heating purposes.

Action Recommended: Newfoundland and Labrador to develop partnerships or alternative plans where it is the tenant in a property which uses fossil fuels for heating purposes.

Waste

Action Recommended: Newfoundland and Labrador to ensure modern best practices relating to waste management are being employed on all public properties.

It is understood the province is facing a challenging fiscal situation. However, many of the recommendations proposed here provide cost savings – and thus value for the taxpayer – in the medium to long term.

Resiliency

An important component of a climate change strategy is how to manage the current and future effects GHGs are having on our environment.

The use of modern landscaping techniques on properties can protect against climate change, reduce the burden on local water management infrastructure (pipes, drains, pumps, etc.), contribute to bio-diversity, reduce energy costs, and be aesthetically superior.

How buildings are designed, constructed, and maintained will impact their resiliency to the effects of climate change and mitigate future costs associated with repairing damages.

Action Recommended: *Newfoundland and Labrador to develop provincial regulations requiring the incorporation of climate change adaptation into the design and planning of infrastructure and homes and buildings.*

As an island in the North Atlantic with an enormous coastline, Newfoundland faces adaptation challenges. Labrador, with its coastline and northern territory, is vulnerable. Both portions of the province feature rural and remote regions. The climate change solutions developed in this province will have applications worldwide and are exportable.

Action Recommended: *Newfoundland and Labrador to support research, development, application, and commercialization of climate change adaptation technologies and processes as they relate to ocean, rural and remote, island, and northern settings.*

Environmental Enforcement

There is very little inspection to ensure compliance with environmental legislation and conditions in permits, approvals, licenses, etc. As a result there is negligible incentive for firms to invest in environmental staff or environmental management systems to ensure conditions are satisfied, which limits the growth of aggregate environmental expertise in the province. This of course also increases the likelihood that conditions are not being met and that environmental damage is taking place. Additionally, the lack of enforcement slows the adoption of environmental practices that are needed to compete internationally or even nationally. These problems are prevalent in all stages of construction, resource development, and in the areas of water quality and waste management.

Action Recommended: *Newfoundland and Labrador to make new investments, incorporating the latest available technologies, in environmental enforcement.*

Energy Efficiency

Inefficient buildings and their operations represent a significant source of waste. This waste takes the form of escaping heat, excess electricity or energy consumption, inadequate diversion of 'garbage', and more. While in some cases investments are required to make buildings more efficient, the reduction of these sources of waste has proven to represent a significant cost savings; many of these investments can be paid for by operational savings after just a few short years. The government of Newfoundland and Labrador has many property assets throughout the province, representing a large footprint. Increased building efficiency could save taxpayers money while providing new opportunities for businesses engaged in green building activities.

Action Recommended: Newfoundland and Labrador to audit the energy consumption of the properties within its portfolio to benchmark and identify opportunities to reduce waste and increase efficiencies.

Action Recommended: Newfoundland and Labrador to work with industry to develop a program of retrofits and upgrades for public properties which: (1) provides value to the taxpayer in the form of reasonable payback periods and savings; and (2) maximizes the benefit to local firms.

Action Recommended: Newfoundland and Labrador to explore energy performance contracting, whereby payments for services are made over time based on actual energy savings.

Influencing Habits

Changing the Culture

It has been the environmental sector's experience that a resistance to change exists within many provincial government departments and agencies. This includes environmental protection and best practices. As government employees are decision makers and also represent a significant portion of the province's entire population, this must be addressed. The public sector must be open to new products, services, and processes. The status quo must be disrupted.

Action Recommended: Newfoundland and Labrador to engage in a comprehensive internal education program for public sector employees on the importance of the environment, best-practices, and the acceptance of new ideas to address environmental challenges.

The same resistance to change and lack of awareness of the importance of environmental protection and best practices exists outside of government.

Action Recommended: Newfoundland and Labrador to explore with its partners and decide on solutions to educate and create meaningful change in how the public interacts with the environment.

Connecting Local Products with Local Consumers

The use or consumption of local products and services has the dual benefit of decreasing environmental footprints (e.g. the displacement of goods which were produced, packaged, and transported great distances to reach Newfoundland and Labrador) and supporting the business activities of local firms.

An example is the use of wood products originating from resources harvested in the province's forests in building construction. The use of such local products in building can reduce the environmental footprint of construction, while bolstering local industry at the same time. This requires an increased awareness of such opportunities for property owners, developers, designers, and builders.

Action Recommended: Newfoundland and Labrador to provide targeted incentives and play a facilitating role where the use of local products can benefit local industry and reduce GHGs in the process.

An important consideration is that of 'food security'. A focus on food security considers the production, distribution, and access and food for a local population. From an environmental

perspective, a food security strategy protects the land, water, and air so localities can keep producing food. From an economic perspective, it supports supply chain development and sustainability by connecting local food with local people.

Action Recommended: *Newfoundland and Labrador to invest in its food security by supporting the growth of established and new farms, and working with interested parties to develop appropriate venues to connect locally produced foods with the public.*

Work with Other Governments

Newfoundland and Labrador does not operate in isolation of other public decision makers. As such, it must work with Federal and Municipal governments to achieve climate change strategy objectives.

Work with the Government of Canada

The new focus of the federal government on environment and clean technology offers enormous opportunity for both the Government of Newfoundland and Labrador and the private sector within the province. In addition to the collaborative actions already recommended, the following issues can be pursued.

Action Recommended: *Newfoundland and Labrador to work closely with its federal government partners to identify areas for partnership in its provincial climate change strategy. The reduction of GHGs in this province help the Canadian government reach its international commitments.*

Action Recommended: *Newfoundland and Labrador to work closely with its federal government partners in addressing how its municipalities can adhere to national wastewater standards by prescribed timelines.*

Action Recommended: *Newfoundland and Labrador to ensure that GHG targets set for (or by) the province recognize that historical emissions data may not include any offshore oil and gas activities; targets which reference emissions levels before the emergence of this industry will present significant challenges for the province.*

Build Capacity Within Municipalities

Just as with the provincial governments, the activities of municipalities can have significant environmental impacts. Municipalities construct and/or occupy buildings. Municipalities purchase many goods and services. Municipalities make choices on investments and infrastructure. Municipalities educate and interact with people – and are closest form of governance to the people. As a result of the scale at which municipalities collectively operate and their ‘distance’ to the people, they can have significant influence.

Unfortunately, most municipalities within Newfoundland and Labrador lack the human resources capacity to engage in the green economy. With the increased interest in environment and climate change at the federal level, new opportunities will arise for municipalities; however municipalities do not have the resources to seize these opportunities. The provincial government alone cannot provide the levels of support required.

Action Recommended: *Newfoundland and Labrador to develop new regional constructs to support the capacity of municipalities to proactively engage in GHG reduction, climate change adaptation, and green economic development activities.*

Conclusion

NEIA applauds the provincial government for embarking on the development of a new climate change strategy, and appreciates the opportunity to make a submission of recommendations.

It is the hope of NEIA's members and partners that the resulting strategy will provide targeted interventions that address the primary sources of GHGs in the province, reform of the province's electricity regulations, tools to empower local firms to contribute to the cause, and strong leadership on behalf of government.

Disincentives that penalize negative environmental choices should be balanced by incentives and supports which encourage and facilitate positive environmental choices – particularly for those who will have greater challenges adapting.

NEIA looks forward to discussing its recommendations in detail with its Government partners, and anticipates that the collaborative approach the Department of Environment and Conservation has taken to this point will continue as the development of the strategy enters its next phase.