

Nova Scotia

Roundtable on Environment and Sustainable Prosperity

Report on the draft
Greener Economy Strategy

December, 2014

Presented to:

Hon. Randy Delorey, Minister of Environment

Hon. Michel Samson, Minister of Economic and Rural Development and Tourism

Table of Contents

Introduction	3
The Round Table’s Thoughts on The Green Economy Strategy as a Whole	6
Round Table Response to Greener Economy Strategy Consultations	8
Game Changers	9
Agriculture	9
Introduction	9
Context.....	9
Game Changer Recommendations	11
Transportation	11
Introduction	11
Context.....	11
Game Changer Recommendations	13
Natural Resources.....	13
Introduction	13
Context.....	13
Game Changer Recommendations	14
Waste Management- Extended Producer Responsibility (EPR)	14
Introduction	14
Context.....	15
Game Changer Recommendations	15
Energy	16
Introduction	16
Context.....	16
Game Changer Recommendations	19
Game Changer Recommendations of the Round Table- Summary	20

Introduction

December 23, 2014

Hon. Randy Delorey
Minister
Department of Environment
Barrington Place
1903 Barrington Street, Suite 2085
Halifax, Nova Scotia

Dear Minister Delorey,

On behalf of my colleagues on the Round Table on the Environment and Sustainable Prosperity (Round Table), I am pleased to submit this document which represents our considered feedback and advice on the draft Greener Economy Strategy (GES). By the Minister's Mandate the Round Table was requested to serve as facilitator for a targeted external consultation process. Then, drawing on the input received, our own subject knowledge expertise and that of our extended networks we were asked to provide advice and recommendations to strengthen the GES.

Three steps were outlined in your Mandate:

1. Facilitate internal discussion within the Round Table to gain the perspectives of members and the organizations represented;
2. Identify and reach out to relevant key individuals and organizations within the province relevant to engage on greener economy matters, and
3. Identify and reach out to key individuals, nationally and internationally, among Round Table members' networks or otherwise regarded as experts in this field who can help focus the opportunities for Nova Scotia.

The first two steps were undertaken through outreach to stakeholders and an invitation to a well-attended focused consultation day (September 24, 2014). We also received approximately 30 written submissions from citizens and organizations. Due to time and resource constraints, the third step was only lightly attended to although significant and useful input was provided by Alex Wood, a knowledgeable thought leader from Sustainable Prosperity, a national green economy think tank, at our consultation event and through our members' outreach to their extended networks. We were also not able to gain the input of Nova Scotia's First Nations whose insight and role in a green economy should be valued. Following the consultation process the Round Table itself deliberated in three extended sessions and through a substantive interchange of correspondence around a series of thoughtful internal submissions developed by members on key topics. I am pleased to say that we have come to consensus as presented within this document.

The Round Table continues to believe that accelerating a greener economy through the GES is a fundamental direction for future action. A greener economy makes both short and long term sense – indeed it is a foundational basis upon which we can ultimately build a vital, competitive, sustainable future. We therefore encourage government to treat the greener economy as a central strategic focus and major economic opportunity, aligning us with trends in progressive economic development and emergent markets responsive to mounting global challenges. A well-designed, boldly implemented strategy can make a major contribution to the future prosperity of this province while improving our quality of life and manifesting both social and environmental responsibility.

We determined that the original Draft GES is a worthwhile document especially in so far as it articulates the province's accomplishments to date, a number of examples of promising past and ongoing initiatives (both within and outside government), and provides general guidance and direction through the lens of four Focus Areas supported with a range of Programs and Initiatives. While these Focus Areas delineate reasonable spheres meriting the improved activity, they are not in themselves strategies but summaries of largely incremental 'business slightly better than usual' approaches to future action. As will be explained in more detail within, where we felt the draft GES was significantly deficient was in its failure to connect explicitly to *Now or Never: An Urgent Call to Action for Nova Scotia's* (OneNS Report). The OneNS Report unambiguously portrays the need for all Nova Scotia's sectors to urgently transform business as usual tendencies into concerted actions to alter our otherwise likely difficult future. As the OneNS Report indicates, an aggressive greener economy strategy can and should be one of the lynchpin game changers to transform our province's current trajectory. With that as context, we decided that it would not be particularly helpful for us in this submission to dissect the draft GES, perhaps adding to, subtracting from or nuancing its' content on a granular level. Rather we concluded that our most useful course of action would be to focus on higher level strategic advice around what we describe as 'game changing' strategies.

Recognizing our limits in time, resources and expertise, the Round Table has not fleshed out these game changing strategies in detail. Rather, we are proposing them as recommendations for further but concerted, rapid consideration. We understand that not everything can be undertaken, at least at one time, and that investment in good up-front analysis is warranted in order to make judicious strategic decisions. This includes clarifying objectives, short term and longer term costs and benefits to both sectors and the province as a whole, and if deemed meritorious, establishing targets, timelines, action plans and accountability mechanisms. To avoid making decisions about our greener economy without having proper information, we must include indicators that go beyond traditional economic indicators. In particular we must measure the status, value, and productivity of our important natural, social and economic assets (e.g. natural capital accounting). It will also be good practice to undertake periodic (in most cases annual) monitoring and re-evaluation so as 'to keep our hands on the wheel' and gauge necessary course corrections. Given that Nova Scotia's commitment to a GES was initiated in 2012 and the overarching urgency, we propose that this consideration is substantially completed within the first year of the GES.

We also see the GES as only one piece in what must be integrated and systemic approaches, policies and campaigns to achieve an essential future reflecting our aspirations and values. We recognize the good work that has been and is being undertaken in a range of areas. In addition to the OneNS Report, those that are most pertinent and warranting close attention towards symbiotic strategic relationships are the

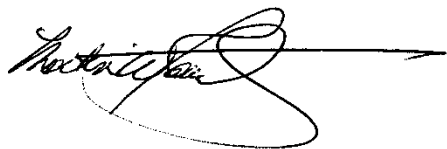
recently released Nova Scotia Tax and Regulatory Review and Independent Aquaculture Regulatory Review, the upcoming Waste-Resource Regulatory Review, and the Climate Change Action Plan (2009). The GES should also be integrated with the ongoing initiatives being instigated by the OneNS Coalition and Engage Nova Scotia. And of course, the GES should be cognizant, complement and strengthen the many intersecting dimensions and linked goals contained within its birthplace statute, the Environmental Goals and Sustainable Prosperity Act (EGSPA).

The Round Table wishes to make clear that we value and appreciate the enormous effort that government, especially in the departments of Environment and ERDT, has applied to bring the GES and its underlying Focus Area initiatives to this point. We see our recommendations as both complementary and building on that useful foundation. At the same time, as a body one step removed from government we think that the Round Table, striving for multi-sector consensus, can best serve as an independent voice that provides you and your government colleagues with strong nonconformal, creative policy and programmatic alternatives.

We particularly want to acknowledge and thank the department for the stellar support and attention provided by your staff, which has provided continual, timely effort; gentle organization and nudges; and exceptional responsiveness to the unanticipated demands of our eclectic volunteer members. The Round Table recognizes that EGSPA called for government's completion of the GES in 2014 and has not been able to do so, in some measure due to our longer than anticipated five month consultation and deliberative timeframe. We understand that the departments have not been standing idle during our process but have been closely monitoring the submissions, our discussions and draft documents so as to keep moving forward towards the final GES. We believe that the best final product justifies this modest extension beyond the legislation's target.

The Round Table stands ready to further engage with you and your colleagues to discuss, clarify or contribute towards the finalization of the GES and then to work collaboratively as called upon to assist in its implementation. This is a worthwhile; we would say imperative exercise and feel privileged to have had the opportunity to participate.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Martin W. Janowitz', with a long horizontal line extending to the right.

Martin W. Janowitz

Chair

The Round Table's Thoughts on The Green Economy Strategy as a Whole

We consider the fundamental shortcoming of the GES to be its failure to connect explicitly to *Now or Never: An Urgent Call to Action for Nova Scotia's* (the "One Nova Scotia Report"). The One Nova Scotia Report should be included in the key steps in the transition of the province's economy to become increasingly green (p.8). In our view, the GES needs to be thoroughly integrated with the principles of the One Nova Scotia Report, and the principles and goals of EGSPA

The One Nova Scotia Report identified a number of game changers to transform our province's current trajectory. The first game changer is political leadership and to the extent that the government and both opposition parties have endorsed the One Nova Scotia Report, this aspect of the strategy appears underway. This level of clear political leadership will also be essential for the Green Economy Strategy.

Other game changers addressed, in the words of the One Nova Scotia Report, "*the need for a province wide, multi-sector commitment to growing both the economy and the population...The growth imperative...requires a more productive dialogue balancing growth and environmental objectives, linking green economy perspectives to our plans for creating jobs and wealth creation.*" (p. ix).

Taking this direction from the One Nova Scotia Report and recognizing there are limitations upon both public and private resources to implement greener initiatives, we think it imperative that the GES enumerate what the objectives and anticipated effects are for each individual initiative and program at the time it is established, or reviewed. The anticipated effects should include short term and longer term costs and benefits and identify the persons or sectors to be positively or negatively affected. The effects should be measurable and subject to monitoring and re-evaluation. The effects under consideration should include not only economic and environmental effects but also social, health, scientific and technical issues together with regulatory effectiveness and efficiency.

The Round Table recognizes that it represents a variety of viewpoints concerning the overall expediency of examples of past actions to support the greening of economy. Rather than debate these differing views regarding the expediency of the examples, we agree that a comparison of the objectives and anticipated effects prior to taking action with the progress of actual results following the action would serve to create a more productive dialogue concerning the initiative. To the extent there are measurable outcomes, they will help justify the action and continuance of the program or stimulate informed debate over whether the detriments and costs of the action warrant its continued priority over other options. For those who expressed the view to the Round Table in consultation that the GES does not go far enough to advance the green economy, the demonstrated success of initiatives will assist in building further momentum for the greener economy.

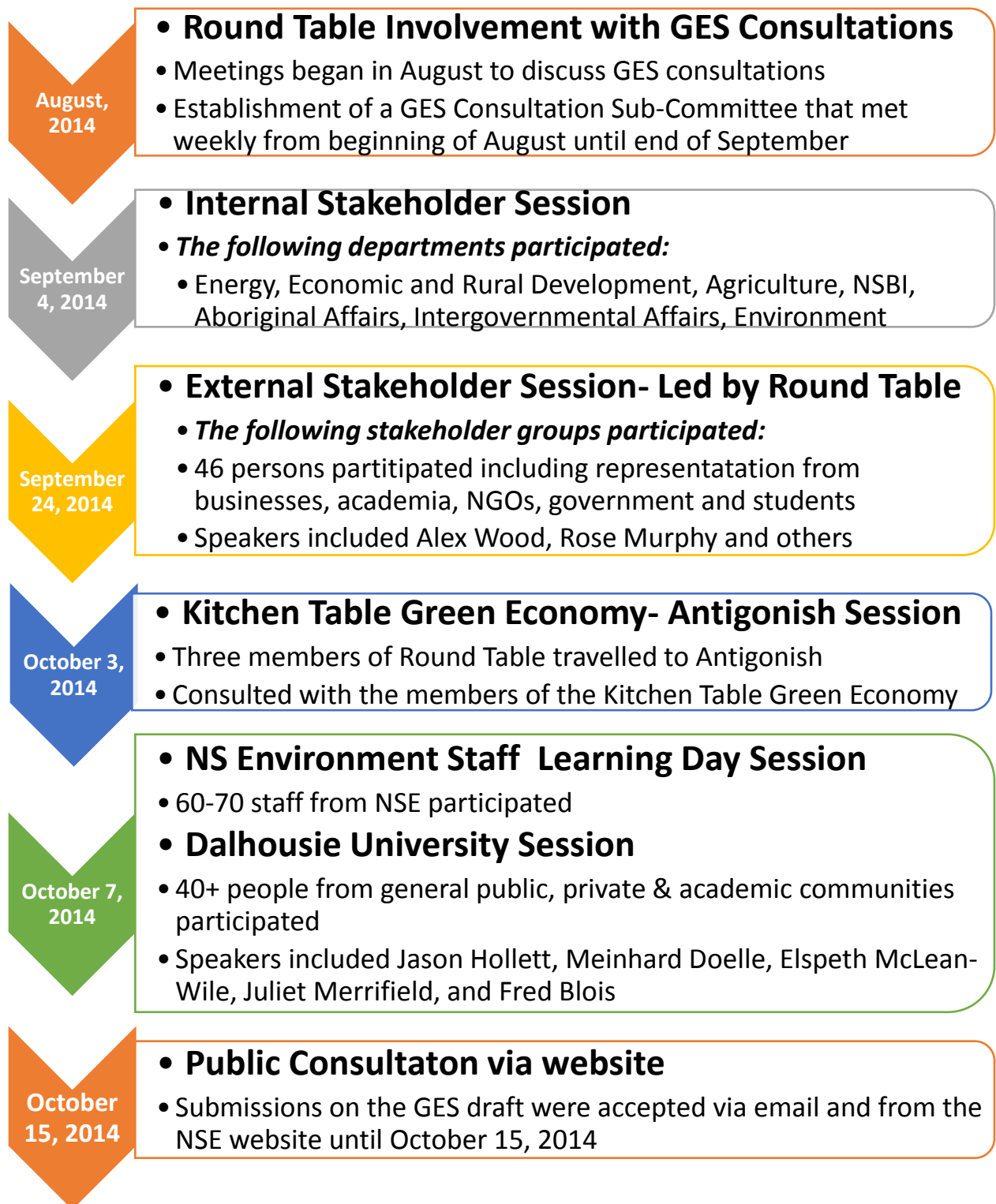
Where there are costs associated with actions or inactions related to greening the economy, it is sensible to evaluate periodically those actions or inactions to determine whether there remains a positive benefit to Nova Scotia or whether a mid-course correction is desirable. Re-evaluating priorities and having the flexibility and balance to chart new priorities or directions will instill and promote public support while mitigating less efficient use of resources.

The Greener Economy Strategy must be integrated not only with the overarching principles of the One Nova Scotia Report but also with the awaited reports on taxation, regulation and aquaculture together with any other reports that address the environment, aspects of the economy or regulation. In this way, a whole systems approach can be taken in which the environmental imperative is assumed and imbedded in all strategies and reasonable opportunities for advancement are not lost or delayed.

Government cannot be expected to undertake the whole transition to a greener economy nor is it well positioned to fully engage individuals. For GES to be effective the strategy should outline what government can do to make a difference; but there will need to be full participation of all sectors including government, the private sector, and individuals and it is recommended that education and encouragement be substantially undertaken by groups outside of government . Therefore, we are glad to see examples of what businesses and individuals can do – a One Nova Scotia Report approach. By working cooperatively, we will have incentive to accomplish more than the sum of uncooperative actions.

The draft GES does not include indicators and timelines for measuring progress. The review of progress needs to coordinate the longer term objective of the Province to work towards continuous improvement on measures of social, environmental and economic indicators of prosperity with the growth objectives of the One Nova Scotia Report. The absence of measurement undermines the GES as convincing evidence of the success of the actions to green the economy and as a means to attract public support for the programs. Clear objectives, programs and incentives will provide a basis for measuring progress. Timelines are needed for monitoring steps taken under the strategy and for reviewing and updating the strategy itself. We believe the recommendations contained in this document should be considered for implementation in year one of the strategy. On an annual basis, a process for monitoring should be designed and implemented. The province currently generates annual indicators of sustainable prosperity. We suggest those indicators be evaluated to determine if they can be augmented to better provide a basis to gauge progress in implementing the Green Economy Strategy. The Round Table would be pleased to participate in this evaluation.

Round Table Response to Greener Economy Strategy Consultations



Game Changers

Agriculture

Introduction

Agriculture in Nova Scotia is an important part of the economy. There are 4,800 direct jobs and a further 15,000 induced jobs related to agriculture. It is important to note that most of these jobs are in rural Nova Scotia.

The NS Commission on Building our New Economy said that “*Yes, there is a crisis, and it does threaten the basic economic and demographic viability of our province, most dramatically in our rural regions;*”

The report names two goals that relate to agriculture:

- *The value of exports from the fisheries (including aquaculture) and the agricultural sectors will each have doubled on a sustainable basis. (The report prepared for the Commission by APEC identified current fisheries and seafood exports valued at \$860 million and agricultural exports at \$240 million).*
- *The value of agricultural products produced for, and consumed within, the Nova Scotia domestic market will have doubled. The current value is approximately \$230 million.*

Increasing the number of immigrants to NS is another ONE report goal. Nova Scotia receives a lower proportion of immigrants than other Canadian provinces:

- *With the cooperation of the federal government, Nova Scotia will be receiving annually its proportionate share (2.7%) of all new international immigrants to Canada, i.e., approximately 7,000 new permanent residents per year. (The current 5-year average is 2,400 per year.)*

There are also two goals within EGSPA that relate to agriculture:

- *local food consumption is supported and encouraged, with the goal of 20 per cent of the money spent on food by Nova Scotians being spent on locally produced food by 2020;*
- *local food production is supported and encouraged, with the goal of increasing the number of local farms by 5 per cent by 2020;*

Context

Climate change will cause increasing instability in agriculture around the world. Nova Scotia is a net importer of food, despite our long history of agricultural production and the diversity of crops and livestock we are able to grow. By increasing our agricultural production, focusing on crops and livestock suited to this region, we have the potential to reduce greenhouse gas emissions due to long distance transport of food. Additionally, we will build our own resiliency in the face of any increasingly uncertain climate conditions, which will likely include transportation disruption, droughts, flooding, and food

shortages throughout the world. As recent major droughts in the US have shown, we can no longer rely so heavily on a small number of intensive agricultural regions to provide large amounts of our food.

In order to foster strong agricultural systems in Nova Scotia, we must ensure that we have a growing population of farmers. As with the rest of the province, the age of the farm population is increasing and farms must consider succession. New entrants must be encouraged to come into agriculture and continue these NS farming businesses.

In order to meet the goals in the OneNS Report and EGSPA agriculture needs new entrants. This can be achieved in 3 ways: increasing immigrants to Canada (Nova Scotia), people moving to NS from other parts of Canada and people in NS transitioning to farming.

Immigration

In the 1950s and 60's many farmers emigrated from Europe and successfully settled in Nova Scotia. These farmers brought new farming practices, as well as enthusiasm for farming and energy to work hard. They purchased underutilized farms and turned them into successful businesses.

This can happen again. There are newcomers that could become the next group of farmers to successfully transform agriculture in our province.

The main barriers preventing newcomers from farming in Nova Scotia are as follows. First, the federal government limits the number of people NS can bring in in a given year. Federal policies must be reviewed to encourage, rather than discourage, new comers to Nova Scotia. Furthermore, we need enhancements to settlement services mentoring within the farming community and extra support around access to capital. Industry and government need to develop skills training for new entrants. New entrants need to be versed on financial management, regulations, production and food safety to ensure that they can navigate Canadian systems.

There is also a shortage of skilled and unskilled workers on NS farms, a similar policy and system of settlement should be created to help refugees and immigrants successfully transition to rural NS.

Land availability is also a challenge for new entrants – whether they are newcomers to Canada or not. A land bank system could be an excellent way to help new entrants with access to land. The Province, through a commission, should work with farmers that have identified land for purchase that meets the needs of their enterprise, and purchase the land for its market value. The development rights to the property would then be removed and the farmer would then be able to lease and eventually buy the land for its agriculture value. Thus the land would be preserved for agriculture and capital costs would be reduced.

Summary

These initiatives to support the increase in immigrants to Nova Scotia will also encourage people to come in from other parts of Canada and provide them with support in transitioning to farming in Nova Scotia. A successful effort will increase the supply and diversity of foods available in Nova Scotia, increase our rural population and support the Green Economy of Nova Scotia.

Game Changer Recommendations

Specific recommendations for consideration towards a greener economy as it relates to Agriculture are:

- Request that federal government increase the allowed number of immigrants to NS for agriculture and natural resources.
- Develop and promote a policy to encourage more immigrants to NS for agriculture and natural resources
- That the Province should undertake rapid review of immigration, recruitment and settlement services to improve growth within the agricultural sector
- In order to attract more farmers to NS the province should develop an improved regulatory and distribution system that supports small farm enterprises.
- Consider the development of a land bank system that will support the preservation of agriculture land.

Transportation

Introduction

Given Nova Scotians' reliance on mobility for personal travel, goods delivery and trade, it's appropriate to pay particular attention to the role of transportation in smart energy communities.

The reason we use so much energy for transportation is that it's essential to maintain our economy and high standard of living. We consume a great deal of transportation energy per capita not because we're wasteful, but because of the unique demographic, geographic and climate conditions.

Also important is consumer choice and behavior, and other social benefits of personal transportation – where we live and how efficient we travel. And there are trade-offs to consider, for example we can choose to travel less when we purchase on line but keep in mind those goods are delivered to our door through transport.

The efficiency of our transportation system is underpinned by three pillars: the performance of our vehicles; the carbon intensity of our fuel choices; and the distance we travel to move people and freight.

The third point is where green economy game change can be most effective. (Vehicle performance and carbon intensity are the domain of other jurisdictions.)

Context

An opportunity for the Nova Scotia green economy initiative is to recognize the direct link between mobility, land-use planning and community design—and to better integrate transportation and urban planning, reducing commuting distances and vehicle-miles travelled.

Mobility accounts for roughly 30 percent of our total energy consumption (and associated greenhouse gases); examining transportation to find opportunities to integrate energy systems, improve energy efficiency and increase productivity by reducing congestion has significant payoff potential.

Light-duty vehicles will deliver significant efficiency gains in the next 10 years. In response to regulations that come into force in 2017, vehicles in the 2025 model year will be 50 percent more fuel efficient than 2008 models.

Freight transportation is also a worthwhile factor for study, such as fleet efficiency in regard to double decking of loads, never travelling empty, etc. Also, as consumers turn more and more toward online purchases, goods will be delivered by an increasing fleet of trucks.

Electric vehicles and natural gas-powered vehicles will eventually find a place in urban settings, which suit the short range of electrics, and where these vehicles are not as constrained by the lack of a recharging and refueling infrastructure. However this transition will take time. Estimates suggest that reliance on transportation from petroleum products will still be at 85% through the next 25 years.

Electricity offers an opportunity to integrate transportation with other energy systems, notably the electrical grid, but the grid has to be green if it is to offer environmental benefits.

Without question, environmental concerns are important, but emission reductions are not likely to be the most prominent factor in personal financial decisions, certainly not among individual Nova Scotians. Most are reluctant to pay more for less. Financial policy incentives could be examined as well as providing more information on personal choice and behaviors for savings on personal budgets and the environment.

Summary

Nova Scotians' expectations for value are clear. They will buy into an effective, efficient and integrated multi-modal framework as long as it is faster, more affordable and more convenient than traditional transportation solutions.

Most Nova Scotians will continue to live in cities, where we travel the greatest number of kilometres in personal vehicles, and the fewest in public transit.

Flipping those numbers would significantly reduce the number of vehicle-miles travelled and go a long way to boosting transportation energy efficiency and improving productivity by cutting commute times.

We can't flip those numbers with the multi-modal systems we have now; it is timely to recognize the direct link between essential mobility, land-use planning and community design.

The opportunity for a major shift can begin today. We have an urban infrastructure in need of rebuilding. We have urban growth that could be aligned with a re-imagined multi-modal framework.

Transportation is one of the largest users of energy, producing over 26% of the GHGs in the province. A more efficient transportation system could reduce operational and promote a more productive economy.

Reducing energy costs from the transportation sector can make Nova Scotian businesses more competitive in a global economy. Whether it is imports or exports, transportation drives costs that get passed on to businesses and consumers. Any measure that reduces these costs will make Nova Scotia more cost competitive, and energy secure.

Game Changer Recommendations

Specific recommendations for consideration towards a greener economy as it relates to Transportation are:

- Recognize the links among mobility of people and goods, land-use planning and community design—and integrate multi-modal transportation into urban and rural planning.
- Direct fuel tax revenue to public and other sustainable transportation.
- Enhance electric car charging stations across the province.
- Improve connectivity for public transportation throughout the province and to other provinces.
- Encourage municipal fleets to adopt electric/hybrid fleets.
- Set a target for emissions associated with transportation

Natural Resources

Introduction

Both renewable and non-renewable natural resources and their development have played an important role in the history of our province and our country. From fisheries to mining, fuels exploration to forestry, rural Nova Scotia was built on what the land provided for our people and how we took care of that land in return.

Although there is no doubt the way in which we manage those natural resources and the environment around us has changed dramatically over the past few centuries - it is clear those natural resources have a solid role to play in our future too.

Context

By continuing to responsibly manage our natural resources and meeting or exceeding world-leading standards in that management, those natural resources can provide a base of fibre and materials to allow for the development of cutting edge renewable and securely sourced products, while continuing to provide an economic backbone for the rural economy.

Increasing Private Land Silviculture

65% of Nova Scotia's land base is owned by some 30,000 small private woodlot owners. Together, they supply 65-70% of the wood fibre used in our forest industry each year. It's hard to deny that they, and the way in which they manage their woodlots, play an integral role in our province's forest industry. Through the Association for Sustainable Forestry (ASF) - a partnership of landowner and forest industry players - the provincial government makes investments in private land silviculture, or the cultivation and growing of trees. By increasing that investment through ASF, we know the best silviculture and harvesting practices are being promoted and the best work is being done to manage our forests, while continuing to provide fibre to the open market. By committing to provide stable funding for uneven-aged quality improvement silviculture government can encourage the contractor sector to invest in new equipment that is better suited to partial harvesting. Increasing this capacity will allow more landowners

to actively manage their lands, promote the development of high quality timber and enhance important ecosystem services.

New and Niche Product Market Development

From specialty woods that are carefully chosen and promoted for growth and value, to aquaculture and fisheries species that provide a greater return through export markets, and high value wood fibre components that make tomorrow's green plastics and chemicals - cultivating and producing those niche market products can be lower impact ways to provide high value products to the worldwide market.

Managing NS's Natural Resources Strategy

With a focus on forests, parks, biodiversity and our geological resources, the most recent Natural Resources Strategy outlined ways the province's regulatory environment can set the stage for greening the economy - encouraging sound private and public sector resource management. As we see outcomes emerge from that strategy - we must ensure they are the outcomes our economy, environment and society need and want for sustainable growth.

Further context and food for thought from the OneNS Report:

“Geographic and economic realities dictate that Nova Scotia’s rural communities, like rural areas everywhere, will continue to rely heavily on sectors like tourism, forestry, fisheries and agriculture, and on production from renewable and non-renewable natural resources. It is not a question of whether we will continue to depend on these industries – we have no choice — but rather, whether we can pursue them in new ways to add significant value to our products and reach higher value markets.”

Game Changer Recommendations

Specific recommendations for consideration towards a greener economy as it relates to Natural Resources are:

- Increase private land silviculture through increased ASF investment and stable funding
- Encourage and support new and niche product market development
- Thoughtfully manage NS's Natural Resources Strategy so that the regulatory environment can set the stage for greening the economy

Waste Management- Extended Producer Responsibility (EPR)

Introduction

EPR is an economic instrument, enabled by provincial legislation, in which producers of products and packaging are held responsible for designing and financing end of life management of their products and associated packaging.

The goal is to shift responsibility for funding end of life management upstream away from the resident to the product manufacturer. True EPR models require the manufacturer to “internalize” recycling and recovery costs as a cost of doing business. Economic instruments also encourage manufacturers to design environmentally friendly products thereby reducing potential waste at its source. Less material going into the landfill or being produced is better for our environment. EPR is one pillar in a zero-waste approach now being advocated by many organizations involved in environmental sustainability.

Context

Costs of recycling and disposing of products and packaging materials in the current solid waste systems in the province are being funded through municipal taxes. Shifting the responsibility for managing designated products to brand owners or consumers will reduce solid wastes costs for municipal units across the province. Costs of managing solid waste are considerable (approximately \$20 million to open, operate and close a landfill every 3-4 years in the Halifax region, for example) so every measure to reduce the need for material to go into landfills supports the financial health of municipalities and reduces the need to increase taxes for residents to pay for collection and processing of waste products and packaging.

Legislation to enable EPR is being implemented by other provincial governments as a key direction in solid waste management for the future. The concept is well supported by municipalities in Nova Scotia. The Provincial government has recognized in their consultation process, *Revising Our Path Forward: A Public Discussion Paper about Solid Waste Regulation in Nova Scotia* that the status quo is not sustainable and has proposed changes in the area of Product Stewardship/Extended Producer Responsibility.

Solid Waste Regulations were a “Made-in-Nova Scotia” concept 20 years ago and now are recognized for the economic value of “waste as a resource” with green jobs in the recycling/recovery industries. NS has the opportunity to evolve the “Made in NS” brand to address the costs and materials management of end of life materials to enhance recycling and recovery jobs in NS.

Game Changer Recommendations

Specific recommendations for consideration towards a greener economy as it relates to Waste Management are:

- Develop a Made-in-Nova Scotia Extended Producer Responsibility regulation will ensure that programs will work in the best interests of residents (accessible, easy to use, and convenient programs) and also the interests of municipalities that are now engaged in many aspects of solid waste management.
- Build upon current programs and ensure success towards meeting the 300kg/person/year EGSPA goal.

- Bring together a working group including multi-sectoral representation to develop and implement new regulations.
- Focus on reduction of waste and re-use of waste in EPR regulation implementation (Rather than just shifting costs for consumption from the community at large to the consumer. The primary goal is to reduce waste at its source.)

Energy

Introduction

The One Nova Scotia Report suggests that Game Changer Strategies “*will require much more effective and efficient deployment of current resources combined with changes in attitudes, policies, and practices across all business, government, and community sectors.*” Energy is at the core of everyday life. Energy therefore has to be a cornerstone Game Changer if we want to attract investment, immigrants and become sustainable and prosperous.

Context

Energy is a necessity for any business or community, large or small. Competitively priced, clean energy is one way that Nova Scotia can make itself competitive to existing and potential new businesses. In addition, the affordability of energy to our citizens is imperative. Renewable energy and energy efficiency blended with existing infrastructure is one way to provide energy security and cost certainty to businesses in the future. Businesses like certainty, thus developing a strong energy policy and infrastructure resistant to price fluctuations should be the core building block in developing a greener economic strategy. A green economy strategy that ensures both stable and uncompetitive pricing will not be acceptable particularly if it knocks back hard traditional industries largely in rural Nova Scotia. If the objective is to reduce GHG then we should be setting targets and identifying the lowest cost, most impactful and economically attainable way to accomplish that.

Significantly increase mandated clean renewable electricity targets to reduce the price fluctuations and thus cost structure of industries and consumers. Look to other jurisdictions to consider how energy policy can successfully be employed as an economic driver. Within this it will be useful to consider how industrial and residential rates compare to other relevant jurisdictions with the goal of identifying best practices to enable competitiveness, particularly with regard to traditional industries located within rural areas. Beyond the environmental objectives the benefits of a rational policy would be reduced costs for businesses and increased consumer capital.

This could be accomplished by considering a number of recommendations for implementation:

Carbon Tax

- Implement equitable, revenue neutral carbon tax (named pollution tax in the Nova Scotia Tax and Regulatory Review).
- Implement an indexed tax credit for low income and rural Nova Scotians.
- Seek to apply this principle broadly, while recognizing there are unique jurisdictional challenges. For example:
 - Emissions from landfills and from outside sources of Nova Scotia. I.e. Shipping.
 - Explore option of collaborating with other Atlantic Canadian provinces.

Industry (in Canada and beyond) has been preparing for some form carbon tax for some time and in some jurisdictions has already begun to do so. A carbon tax builds on the principle of polluter pays. Changing the tax regime to shift the tax onus to users or producers of carbon could have many benefits including incentivizing the emergence of competitive low carbon technologies and processes; and the reduction of carbon dioxide emissions with well recognized climatic and environmental benefits. A revenue neutral carbon tax that includes reduced personal and corporate income taxes while protecting low income households could stimulate more economic and clean technology activity.

In 2008 the BC Government developed what was then a controversial policy—they brought in a carbon tax. Six years later the tax has reduced GHG emissions by 16% and their population and economy has grown faster than the national average, demonstrating the carbon tax has not had a regressive impact on their province. As the tax has been implemented, corporate and income taxes have dropped. BC has also seen the number of clean technology businesses in the province grow dramatically. To protect low income and rural residents BC introduced favourable tax measures to mitigate the harm. There is growing interest and support for a carbon pricing across Canada. Ontario and Quebec have taken steps and it is likely other provinces are reviewing their options. Such a tax could be designed and implemented to meet the needs of the Nova Scotia (or Atlantic Canadian) economy.

Power

- Convert buildings to their lowest emission potential (e.g. Converting conventionally heated buildings to renewable energy sources).
- Reduce peak power needs and thus the need for additional power generation or dependence on old, high emitting technologies.
- Allow and incentivize natural resource industries to produce their own source of sustainable electricity.
- Increase the renewable energy target over the period leading up to 2030 to realize a zero carbon electrical environment.
- Strong leadership to incorporate hydro, tidal and biomass, and other sources - key to achieving a carbon free energy grid.
- Power pooling
- Enable distributed energy to collocate energy source and the consumer.
- Enable investment in a smart grid.

Decreasing the dependence on fossil fuels will reduce, if not eliminate, the fluctuations (highs and lows) of energy costs. Energy price certainty will require capital investments in the short term, but will provide stability over the long run. Concerted attitudinal shifts will be required for our population to accept the impacts that changes in the energy system will have, and to support the move away from our dependence on carbon based infrastructure to locally produced, sustainable energy. Enabling the development of a smart grid is a critical foundation for reducing greenhouse gas emissions and transitioning to a low-carbon economy, including increased integration of renewables, widespread usage of plug-in hybrid electric vehicles (PHEVs) and their potential use as storage for the grid (see

Transportation goals), and peak power shifting. The use of peak power pricing would be a powerful game changer in terms of changing energy consumption patterns.

The province will have to work closely with Emera and other energy producers to ensure Nova Scotia can become a net exporter of energy. Power grid changes need to be carefully planned and choreographed, as any change to IRP assumptions could have a negative impact on electrical prices and thus costs to end users.

Energy Exploration and Extraction

- Consider separating resource revenue from the rest of the economy.
- Consider the extent to which oil and gas revenue could benefit the next generation of Nova Scotians by limiting the amount of revenues that can be used on annual basis (e.g. Norway's Sustainable Development Strategy which focuses on the goal to increase net natural capital over time)
- Review the way exploration licenses are issued to ascertain if it is feasible to retain part ownership of the resource with revenues coming from a combination of royalties, fees and taxes.

Buildings

- Mandate that new building design and construction migrates toward renewably sourced electrical energy as the primary energy source by 2030
- Phase in regulations for new buildings to be nearly net zero energy beginning 2020.
- Existing buildings be required to meet a minimum energy performance requirement/standard.
- Implement a third party inspection and control function.
- Initiate an energy, water and carbon performance labelling program by 2020.

Buildings typically consume significant amounts of energy, and where the primary fuel is fossil based, contribute as much as 35% of greenhouse gas emissions. Despite current codes and standards the majority of new and existing buildings in North America, and In Nova Scotia, are poor energy performers. Building design, construction, operation and deconstruction must be acknowledged as an integral factor in the Green Economy.

The transition towards carbon neutral, net zero energy or nearly net zero buildings is underway globally and presents a social, economic and environmental opportunity for Nova Scotia at a Game Changer level. The convergence of information and communication technologies will manifest itself through smart buildings and smart cities that are resource efficient, comfortable and productive built environments.

Opportunities exist in developing and maintaining a centre of excellence for building design and construction through university education enhancing architecture and engineering expertise. At the community college level with IT, technology and building trades best practices. As an economic driver through the retrofitting of existing buildings and networks and new buildings developed through fully an

integrated design process and through local manufacturing of high performance construction materials and technologies

Green Technology in Energy Resources

Invest in Green Technology by building capacity in this sector through:

- Continuing to invest in the Green Technology Fund.
- Funding early to mid-stage start-ups in this sector.
- Encouraging post-secondary institutions to take a leading role in developing skills and R & D in this sector.
- Develop a Centre of Expertise in Green Technologies for Energy through post-secondary institutions.
- Develop a strong regulatory framework to support new green technologies in energy.
- Facilitate private/public partnerships in developing green technologies in energy.

Investment in green technology is critical to reducing the dependence on fossil fuel as a main source of energy. Many advancements have been made in a very short period with several sectors (storage and tidal) at the cusp of major breakthroughs. Nova Scotia can become a global leader by linking the academic community with the private and public sector to invest in new IP that can be a game changer for the energy sector.

Game Changer Recommendations

The overarching specific recommendations for consideration towards a greener economy as it relates to Energy are:

- Consideration of implementation of a Nova Scotia and/or Atlantic Canadian version of revenue neutral carbon tax system that considers the broad impacts on individuals (low income), regions (urban/rural) and industries that could be negatively affected by a change in the tax regime.
- Consideration of a new renewable energy resource development plan to reduce the over dependence on fossil fuels and the price swings associated with this. This plan should also consider the overall power grid and the efficiencies that can be made without stranding assets, but allows new entrants to participate in making power system more efficient and sustainable.
- Consideration of a review of energy exploration and extraction and the revenue model associated with such. Consideration should also be given to preserve the province's natural capital and to provide economic incentives to promote and further sustainable goals for our future generations.
- Consideration of sustainable building design and construction policies to create efficient buildings with minimum performance requirements in the areas of energy and water.
- Consideration of continued investment in the green tech sector, including funding for early to mid-start-ups and to fund research and development facilities in cooperation with our post-secondary institutions.

Game Changer Recommendations of the Round Table- Summary

Specific recommendations for consideration towards a greener economy are:

Agriculture

- Request that federal government to increase number of immigrants to NS for agriculture and natural resources.
- Develop and promote a policy to encourage more immigrants to NS for agriculture and natural resources
- Province should undertake rapid review of immigration, recruitment and settlement services to improve growth within the agricultural sector
- In order to attract more farmers to NS the province should develop an improved regulatory and distribution system that supports small farm enterprises.
- Develop a land bank system that will support the preservation of agriculture land.

Transportation

- Recognize the links among mobility of people and goods, land-use planning and community design—and integrate multi-modal transportation into urban and rural planning.
- Direct fuel tax revenue to public and other sustainable transportation.
- Enhance electric car charging stations across the province.
- Improve connectivity for public transportation throughout the province and to other provinces.
- Encourage municipal fleets to adopt electric/hybrid fleets.
- Set a target for emissions associated with transportation

Natural Resources

- Increase private land silviculture through increased ASF investment and stable funding
- Encourage and support new and niche product market development
- Thoughtfully manage NS's Natural Resources Strategy so that the regulatory environment can set the stage for greening the economy

Waste Management- Extended Producer Responsibility

- Develop a Made-in-Nova Scotia Extended Producer Responsibility regulation will ensure that programs will work in the best interests of residents (accessible, easy to use, and convenient programs) and also the interests of municipalities that are now engaged in many aspects of solid waste management.
- Build upon current programs and ensure success towards meeting the 300kg/person/year EGSPA goal.
- Bring together a working group including multi-sectoral representation to develop and implement new regulations.
- Focus on reduction of waste and re-use of waste in EPR regulation implementation (Rather than just shifting costs for consumption from the community at large to the consumer. The primary goal is to reduce waste at its source.)

Energy

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