



Introduction

This submission sets out the Clean Foundation's response to the draft 2012-14 Progress Report on the *Environmental Goals and Sustainable Prosperity Act* (EGSPA). Following a brief discussion of the importance of renewing EGSPA's goals to ensure the act remains a key driver of sustainable prosperity in Nova Scotia, this response will detail our feedback on certain of the goals in the act. Where we provide no feedback, it can be assumed that we are in substantial agreement with the text of the draft Progress Report, or we are confident that others in the Province will speak to any issues raised with greater expertise.

Seven years since its original enactment, EGSPA remains a seminal piece of legislation. It has transcended shifting government mandates to anchor a program of key transformational changes in a number of sectors. The decision to embed quantitative targets and deadlines within legislation is critical to achieving EGSPA's long-term environmental and economic objectives. Also critical to the success of this act is the periodic review mechanism, which allows the legislation to be updated to reflect changing needs and circumstances. This mechanism allowed EGSPA to be amended in 2012 to include new goals and to update existing ones.

Most of the goals in the 2007 version of EGSPA were targeted for achievement by or before 2015. The 2012 amendment extended some of these goals to 2020. The province has achieved a number of the EGSPA goals, and is well-positioned to achieve many of the remaining goals within the legislated timelines. However, we are concerned that as more and more goals are checked off as "Goal Achieved", the influence of EGSPA will become blunted and fall short of its potential as a game changer in our province. While the government notes in the "Next Steps" sections of the draft Progress Report a number of actions that it intends to take to continue to advance the achieved goals, these steps are not bolstered by clear targets and timelines in the same way the original goals were. We are concerned that they are therefore susceptible to variable levels of commitment due changing government policy and resources.

Another advantage of EGSPA is that it brought a diverse array of goals together into one framework. This facilitated the unified reporting on progress towards their achievement. That is, while many different government departments and offices might share responsibility for achieving the collective set of EGSPA goals, the annual reporting requirement served to aggregate and communicate their progress in one document. However, for many of the 'achieved' goals, detailed progress reports on the implementation of strategy frameworks or next steps is now no longer part of the EGSPA Progress Report. Instead, progress must be discerned by reference to the various parts of government with responsibility for the respective items. This makes it more difficult for stakeholders to monitor and comment on government's progress on these items.

For these reasons, the Clean Foundation believes that it is important that the next round of review of EGSPA actively canvas opportunities to create new goals that will address key economic and environmental challenges as they exist at the time of the review. We feel that there is little value in leaving the 'achieved' goals in the text of the act, unless they are substantively updated with new targets and timelines. The next review is also a key opportunity to ensure alignment between EGSPA and the forthcoming *Greener Economy Strategy*.

Goals

4(1)(a) The Province adopts and implements a framework to support a transition to cleaner sources and sustainable uses of energy to produce greater economic, social and environmental benefits for Nova Scotians by supporting and enabling:

(i) energy efficiency and conservation to assist in energy affordability and competitiveness through increased productivity,

Energy efficiency is a critical strategy to improve the sustainability of Nova Scotia's energy framework. However, in the past the social benefits of this strategy have not been fully realized. For those living on a low income and other vulnerable populations such as the elderly and disadvantaged minorities that face the 'heat or eat' dilemma, energy efficiency can have a significant poverty alleviating effect by reducing energy bills. Retrofits that improve the energy efficiency of a building's envelope also increase warmth, reduce dampness, condensation and mould/mildew issues, and improve indoor air quality. A growing body of global research highlights the key health-related benefits that can follow from such improvements.

The Clean Foundation believes that energy poverty alleviation should be a key part of Nova Scotia's energy efficiency framework, and is pleased to see that this idea has been incorporated into EGSPA, as well as the government's 2014 Electricity Efficiency and Conservation Plan. It is also hoped that consideration for low income Nova Scotians will be part of the ongoing Electricity Review.

(ii) sustainable transportation options,

Approximately one-quarter of all of Nova Scotia's GHG emissions come from the transportation sector. After the electricity sector, the transportation sector is Nova Scotia's largest GHG emitter, with road transportation contributing the bulk of the emissions (70%).¹ As the number of vehicles on Nova Scotia's roadways continues to increase, the importance of efforts to address this particular sector should not be overlooked.

Efforts to further promote sustainable transportation need to focus on two key areas: (1) a greater emphasis on alternative, 'low emissions' energy sources for the transportation sector; and (2) encouraging infrastructure that shifts us from a heavy reliance on single occupant vehicles.

To address the first recommendation, EV technology is leading the way as an alternative to fossil fuel use in light duty vehicles. Approximately 50 vehicle charging stations are currently installed across Nova Scotia and available for public use. This represents an investment of approximately \$200,000 towards the purchase and installation of these charging stations. EVs contribute to a reduction in local air pollution. There is also potential for a reduction in point source GHG and air quality emissions as the electricity sector incorporates more renewable energy into its mix. The efficiency of EVs is also elevated with the transition to localized power sources, reducing energy lost in transmission.

The Clean Foundation supports the government's efforts to promote EV transportation alternatives. For example, the government has provided funding to support the Municipal Fleet

¹ Province of Nova Scotia. (2013). Choose how you move: Exploring Sustainable Transportation in Nova Scotia. A Companion Document to the Sustainable Transportation Strategy. Retrieved from <http://novascotia.ca/sustainabletransportation/docs/Exploring-Sustainable-Transportation.pdf>

Efficiency Initiative. This program will provide an electric vehicle (EV) suitability assessment for two municipalities (Bridgewater and New Glasgow) and build a business case for implementation of EVs into the light duty municipal fleet. In addition, a toolkit will be developed to address perceived barriers and benefits of EV use. The final reports and case studies will provide a starting point for other municipalities in Nova Scotia to address the suitability of EVs in their municipal fleets.

The success of EVs as a climate change mitigation strategy is dependent on the point source emissions mix. To see broader and more immediate reductions in GHG emissions, transportation planning must happen simultaneously, considering ways to reduce the number of vehicles operating on Nova Scotia roads. With an increase in mass transit options, fewer single occupant vehicle movements will be required, thereby reducing the demands on roadway infrastructure (i.e., maintaining existing roadways and building new ones) as well as transportation-related GHG emissions. Connectivity of sustainable transit options needs to be a priority for this to be a viable option beyond urban cores.

Efforts must also continue to develop new active transportation corridors, which demonstrate a commitment to including walking and cycling as important, healthy and safe parts of the transportation loop. This can be seen in the bicycle Blue Route and dedicated cycle lanes on roadways. Not only does this reduce GHG emissions but it also promotes healthier lifestyles, which can lead to a reduction in future health care costs. In addition to developing our active transportation infrastructure, we need to focus more resources on encouraging individuals to make greater use them.

(iii) increased renewable energy,

Critical to the integration of affordable and reliable renewable electricity to Nova Scotia's grid will be the development of both short-term and long-term energy storage technology and smart grid innovations. The Clean Foundation is encouraged by government's support for the research and development of these technologies, such as its \$2 million investment through Innovacorp in companies like LightSail Canada Inc.

(c) An updated energy efficiency rating system for new and existing homes is available in the Nova Scotia Building Code Regulations made under the Building Code Act;

(d) All new residential dwelling units constructed in the Province after January 1, 2011 are required to meet energy conservation measures adopted in the Nova Scotia Building Code Regulations made under the Building Code Act;

While the province has achieved the building energy efficiency goals as set out in the amended EGSPA, the Clean Foundation is pleased to see that the draft annual report indicates an ongoing commitment to updating the Building Code to reflect the latest in emerging building energy efficiency standards. When the next EGSPA review is completed, the addition of new goals to reflect the development and implementation of efficient building standards, including net-zero dwellings, should be a focus area.

We would also like the government to consider strategies in addition to standards to encourage the construction of more efficient new buildings and efficiency retrofits to existing buildings, such as tax credits for homeowners whose dwellings achieve an EnerGuide rating of 80 or greater, or sales tax exemptions for material and equipment used to conserve energy.

(e) The Province continues to work with other levels of government on national emissions standards for greenhouse gases and air pollutants from new motor vehicles, such as the standards adopted by the State of California;

The federal Environment Minister recently announced at the UN Climate Summit in September that draft regulations for light passenger vehicles have been finalized and will take effect on Oct 8, 2014 and continue until 2025, at which time the federal government estimates that cars will use 50% less fuel than 2008 models. The federal government also intends to further regulate fuel efficiency for heavy duty vehicles, make additional cuts to smog-producing emissions from cars, and lower the amount of sulfur allowed in gasoline by as much as 80%.

In addition to supporting the development of federal regulations such as those above, the Clean Foundation urges the province to explore the potential for expanding EV infrastructure and encouraging greater penetration of EVs in Nova Scotia for the reasons set out above. As the provincial electricity grid becomes more reliant on cleaner energy sources, transition to EVs from fossil-fuel powered vehicles will further reduce emissions from the transportation sector.

(f) Greenhouse gas emissions are, by 2020, at least 10 per cent below the levels that were emitted in 1990 [...]

The Clean Foundation feels that it is likely that the province will achieve this goal 2020. In the next review of EGSPA, the province should consider updating this goal to increase the reduction from 10% to 15%.

We would also like to address the opportunity to pair this mitigation goal with complementary adaptation goals. Although the province has listed the above 10% GHG emissions reduction goal under the heading of, "*Adapting to and mitigating the impacts of climate change*" (emphasis added), it is the only goal in this the category and speaks only to the issue of mitigation. In the next round of EGSPA review, the province should consider the introduction of goals that address adaption to a changing climate. For example, much of Nova Scotia's coastal infrastructure is vulnerable to rising sea levels and increasing frequency and severity of storms. Climate change adaptation is essential in building resilience, especially for short-term climatic events. With two of the province's main economic drivers - fisheries and tourism - being vulnerable to changes in the climate and at high risk in the face of climate change, both mitigation and adaptation goals are required to avoid disastrous impacts on Nova Scotia's economy.

Finally, in the next round of review the transportation sector should be at the forefront of the discussion of reducing GHG emissions. Making municipal fleets more efficient and developing strategies to increase public transit ridership would help mitigate the GHG emissions from this sector.

(j) The Province meets and maintains the Canada Wide Standards for Particulate Matter (PM) and Ozone established by the Canadian Council of Ministers of the Environment for airborne fine-particulate matter by 2010.

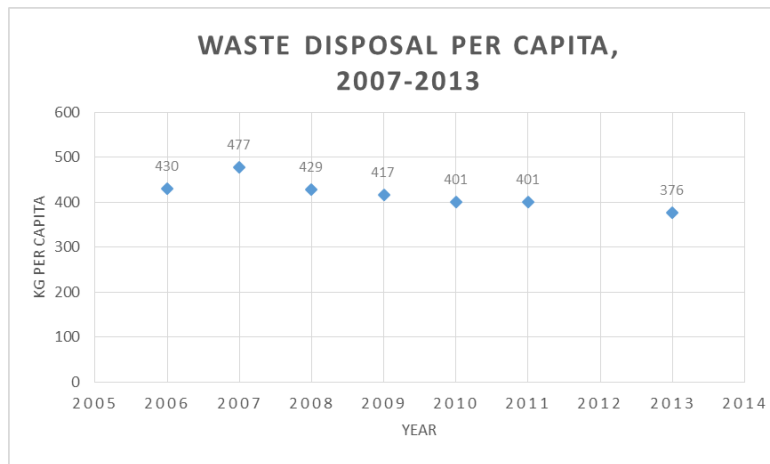
(k) The Province meets and maintains the Canada Wide Standards for Particulate Matter (PM) and Ozone established by the Canadian Council of Ministers of the Environment for ground-level ozone by 2010.

The Clean Foundation is concerned that the province has noted that both of these goals are achieved when the only data provided concerns the two largest urban centres in Nova Scotia. Historically, it is Nova Scotia's rural areas that have hosted much of the industry that generates

particulate emissions and ozone pollution. With air pollution issues creating serious health and environmental concerns in communities like Pictou and Trenton, we feel that the province has not provided sufficient evidence that these goals have been achieved on a province-wide basis.

(o) The solid-waste disposal rate is no greater than 300 kilograms per person per year by 2015 through measures that include the development of new programs and product stewardship regulations.

This goal presents significant challenges for Nova Scotia. While the province has had marked success in achieving world-leading waste diversion rates as shown in the chart below, progress toward the 300 kg per capita limit has been slower than needed to achieve the target within the legislated timeframe.



One major challenge is low compliance with waste diversion and disposal bans. Presently, about 50% of divertable waste is still ending up in landfill, signaling that the current diversion framework is not effective. In view of the forthcoming expansion of the list of products banned from landfill in the province's *Solid Waste-Resource Management Regulations*, there is a pressing need to review the current solid waste diversion framework to identify opportunities to increase diversion. One key avenue to study is consumer behaviour; what challenges and barriers are militating against increased compliance with diversion goals?

To date, the bulk of the provincial solid waste policy has focused on the downstream reduction of solid waste through diversion and recycling initiatives. However, if the province hopes to achieve sustainable and long-term reductions in the amount of solid waste it must also address the upstream challenge of reducing waste at the source. Products are still being made with excessive and unnecessary packaging, and with forms of packaging with are difficult or impossible to reuse or recycle. And many products themselves, especially consumer electronics, are subject to ever-shrinking cycles of obsolescence. Waste diversion efforts alone cannot hope to keep pace with the turn-over rate of these products which are, from a product lifecycle perspective, extremely expensive to produce in terms of extracted resources and GHG emissions. In the design of the new stewardship frameworks, it is important that Nova Scotia include incentives that not only require producers to collect and fund the proper disposal of their products, but also drive the design of products that are more easily repaired or updated to prolong their use, and more easily broken down at end-of-life into constituent parts that are reuseable and recyclable. The other central piece is allocating resources for public education to increase consumer awareness of the importance of waste diversion.

Finally, with the next review of EGSPA, the province will be well-positioned to maintain its leadership in this area and create a more ambitious solid waste goal for 2020 or later. It may also be beneficial to consider framing the new goal in terms of a diversion rate (i.e., percent of divertable waste that is in fact kept out of landfill) instead of a per capita disposal goal.

r) A government facility is constructed as a demonstration facility in accordance with leading energy efficient design standards by 2015 and used to foster sustainable building practices

Government could contribute in a powerful way as a leader in this area, both in terms of fiscal and energy efficiency, and green innovation. While the province is making strides by incorporating green building practices for new buildings, we recommend it seek to improve the sustainability of its existing building assets by undertaking energy and water conservation retrofits and, where practicable, incorporating technologies such as green walls and solar photovoltaics.

u) Local food production is supported and encouraged, with the goal of increasing the number of local farms by five per cent by 2020

The number of farms decreased from the 2012 benchmark year total of 2,606 farms to 2,572 farms in 2013. This decrease underscores the challenge this goal is attempting to address. Increasing consolidation and reduced competition in the farm equipment supply and retail food sectors means high input and equipment costs for farmers and low prices for their products at the grocery store. In addition, organic farmers face the additional costs of obtaining and maintaining their certification. As was noted in the 2010 report on *Opportunities and Challenges in Atlantic Agriculture*, “Atlantic Canada’s farms, being relatively small and restricted by a short growing season, are ill-placed to compete on price and volume – though they can compete very strongly on quality and, most importantly, on security and reliability.” (p. v).² Growing the number of farms requires programs and initiatives that will support and promote the value of higher quality local food alternatives.

It is also important to re-introduce the idea of farming as a valuable sector in need of support, and as a potentially rewarding vocation for our youth, many of whom are growing up with a greater degree of dissociation from the process of farming and food production than any previous generation. This can be achieved through formal support structures, loan programs, and encouraging farming in the education system.

(t) At least 12 per cent of the total land mass of the Province is legally protected by 2015

The province has done a solid job in protecting land in Nova Scotia, and is well-positioned to surpass the goal of protecting 12% of land mass by 2015. These efforts will make Nova Scotia a national leader in land protection in Canada, second only to British Columbia. The province should also be recognized for its approach to achieving this goal, which included numerous public consultations, a general openness to input from community groups and the public and a collaborative approach to working with Mi’kmaq groups to achieve land protection objectives. The Clean Foundation also supports NSE’s intention to address gaps in the protected areas system by working with federal conservation agencies and other partners to explore opportunities for complementary conservation actions in areas of shared responsibility.

² Nova Scotia Federation of Agriculture. (2010). *Opportunities and Challenges in Atlantic Agriculture*. Retrieved from <http://nsfa-fane.ca/programs-projects/opportunities-and-challenges-in-atlantic-agriculture/>