



HEALTHY COMMUNITIES • SUSTAINABLE COMMUNITIES

March 27, 2015

Hon. Glen Murray
Minister of the Environment and Climate Change
Ferguson Block
11th Floor
77 Wellesley St W
Toronto ON M7A 2T5

Dear Minister,

On behalf of the Ontario Professional Planners Institute (OPPI), I am submitting the Institute's response with regards to the Climate Change Discussion Paper – EBR Registry Number 012-3452. We are providing our response below as per the discussion questions that were posed in the Discussion Document. We appreciate this opportunity to provide input.

OPPI is the recognized voice of the Province's planning profession. Our more than 4,000 members work in government, private practice, universities, and not-for-profit agencies in the fields of urban and rural development, community design, environmental planning, transportation, health, social services, heritage conservation, housing, and economic development. Members meet quality practice requirements and are accountable to OPPI and the public to practice ethically and to abide by a Professional Code of Practice. Only Full Members are authorized by the Ontario Professional Planners Institute Act, 1994, to use the title "Registered Professional Planner" (or "RPP").

Discussion Questions:

1. Traditional Knowledge

What are the best ways to employ the traditional knowledge of First Nations and Metis communities in the process of developing the climate change strategy and action plan, and in implementing their provisions?

- OPPI supports working with willing First Nations & Metis that are already working to develop climate change plans, such as the Chippewas of Georgina Island.
- There is a need to develop means of obtaining and documenting knowledge while maintaining trust of First Nations and enabling them to maintain control as to how knowledge is to be utilized.
- The new Provincial Policy Statement (PPS) provision regarding coordination among municipalities and Aboriginal communities could be strengthened to allow for greater consideration of aboriginal issues and traditional knowledge, and incorporated into other Provincial plans.

- OPPI recognizes that working with First Nations & Metis requires cultural recognition and respect, including the use of in-person engagement, rather than our customary methods.
- Resource and capacity issues may need to be addressed to enable First Nations and Metis to participate effectively.

2. Action in Key Sectors

What can each of the key sectors, including transportation, industry, buildings, electricity, agriculture, water and forestry, do to contribute to Ontario's 2020 and 2050 targets?

- The formula for funding for municipalities should be re-examined, and become proportional to the amount of a municipality's infrastructure. Currently, there is a large mismatch and the municipalities are not able to maintain or improve the infrastructure that they own. Climate change will further exacerbate this problem and could lead to deficits which will make it impossible to implement new, sustainable works, due to this burden.
- Increase resilience of the electricity system and reduce line losses through decentralized generation.

What can government better do to encourage industry to further increase rates of innovation that would lead to improved productivity of all capital, including natural capital, in order to reduce emissions?

- Provide financial and policy incentives that encourage Greenhouse Gas reduction, which results in innovation. Examples might be performance measures such as redistributing Development Charges if Low Impact Development (LID) or Leadership in Energy and Environmental Design (LEED) were used in design. Another could be awarding of carbon credits for tiered % reductions.
- This approach could be tied to the Federation of Canadian Municipalities' (FCM) Partners for Climate Protection program, for example.
- Support innovation hubs for low carbon technologies.
- Support research, testing and standards development to facilitate transition from research and development to market.

What industry sectors may best be able to achieve voluntary emission reductions by 2020 and by 2050 sufficient to achieve Ontario's emission targets?

- The telecommunications sector, based on their larger scale and that most of their offices are urban. Car sharing, bicycling to work and corporate reductions would be combined to meet targets.

What role can the agricultural and forestry sectors play in reducing emissions and/or providing carbon sinks or offsets?

- Agriculture can contribute through no-till cultivation, retirement of less productive/profitable farm land for regeneration. Some discounting of carbon pricing for agriculture may be required despite carbon advantages of local food.
- The promotion of farmers' markets and agri-tourism can assist further in reducing the carbon footprint.
- Forestry: Certification programs and urban forestry and tree replacement can sequester carbon, enable land conservation and ultimately enable more lumber to be produced closer to market.
- Farmers are the stewards of many natural areas that sequester carbon in Ontario. A key area of incentive in agriculture would be to incentivize the retirement of marginal farm lands that require drainage or are periodically or seasonally wet. Wetlands are a key area of carbon sequestration and collectively are very important to the moderation of regional climates and in flood prevention.
- Further research and attention needs to be given to unique rural and northern based programs that strengthen rural agricultural and northern resource based communities as they adapt to climate change to additional charges on carbon based fuels.
- Protect the Greenbelt and minimize intrusions from infrastructure.

What role should land use planning have in affecting Ontario's boreal carbon storage?

- The Northern Ontario Growth Plan already supports climate change mitigation and adaptation. The potential implications of climate change and the loss of the Boreal Forest as a carbon heat sink are serious, however, the ability of land use planning to effect change at the required scale is unclear. This should be a priority area for further research and action.
- We also support development and implementation of community land use plans under the Far North Act. Further we support amendments to the guidelines and administration of the Crown Forest Sustainability Act where climate adaptation measures are introduced.

Climate Change will have an impact on Ontario's food supply. What role should this issue play in Ontario's climate strategy?

- Ontario's strategy needs to set some general directions, including encouraging certain new technologies and new practices.
- Water quantity and quality will be the key issues affecting our food supply. Extreme weather will bring too much water in too short a time.
- Crop diversity will be key as new invasive species will threaten monoculture, impacting farmers' incomes.
- Encourage bio-diesel for use in farm equipment and vehicles.

How can Ontario best achieve reductions in emissions in the transportation sector sufficient to achieve Ontario's targets?

- Ontario should maximize opportunities for pedestrian and cycling infrastructure over existing, as well as future provincial corridors (bridges and highways), to encourage community interconnectivity. Similar concerns arise in relation to rail corridors.
- In urban centres, and along the 401 corridor, public transit and light rail should be expanded. In addition, there are other ideas, such as congestion pricing for automobiles in the city core, improved suburban and rural internet service, to support telecommuting in the civil service and private industry.

Additional Comments

- The Province's plan should also include leadership and advocacy at the national and international level in terms of targets and standards and greenhouse gas reduction.
- As global warming unfolds, the Great Lakes/St. Lawrence watershed will attract displaced people, capital and industrial activity and agricultural production because of the region's abundant fresh water and temperate climate. Advanced planning is needed to accommodate this migration.

3. Communities & Built Form

Transportation emissions have grown at a rate faster than any other class of emissions largely because of population growth and urban expansion. What role could the Growth Plan for the Greater Golden Horseshoe and other planning mechanisms play, in combinations with other government initiatives such as electrified Regional Express Rail, in stabilizing the growth in transportation and building emissions?

- OPPI and the planning profession have much to offer in addressing the impact of built form on energy and transportation. As a result of more than a decade of smart growth, new communities are more pedestrian-oriented and supportive of

public transit. These communities are wiser users of energy and have a much reduced carbon impact than communities built just 20 years ago. A big goal of the planning profession in the decades ahead will be to define new community forms out of existing built communities – neighbourhoods that are more liveable and healthy, as well as energy efficient. Infill and intensification are having a huge impact on Cities such as Toronto and Ottawa and this trend will continue.

- The new PPS is already supportive of planning for climate change, and the ongoing review of the Growth Plan for the Greater Golden Horseshoe (as well as the Oak Ridges Moraine Conservation Plan, Niagara Escarpment Plan and the Greenbelt Plan) should develop this further. At the same time, current policies do not specifically envisage carbon-neutral communities.
- Innovation has been undertaken by a number of municipalities without a firm provincial policy context (i.e. pre-2014 PPS), but a more supportive and consistent approach is required. Municipalities are looking for provincial leadership.
- Stormwater management (too much/too little) is a major concern at the municipal level, and a major factor in terms of resilience.
- Potential barriers are degree of commitment, community acceptance, and practical matters regarding how to implement the provincial interest on the ground.
- There needs to be more responsive building and engineering design codes to implement low-carbon communities, including more frequent reviews and quicker implementation timeframes.
- Greenfield areas should not be designated for development without demonstrated commitment to meeting intensification targets.
- Growth Plan commitments to complete communities should be supported by climate change references.
- The PPS should apply more directly to infrastructure implementation decisions (bike lanes etc.). These decisions are more discretionary than land use (e.g. official plan, zoning) decisions which have the “backup” afforded by the Ontario Municipal Board (OMB).
- Initiatives and implementation should be monitored and municipalities should be accountable for progress.

Building net zero communities and buildings are already possible from an engineering standpoint yet few have been constructed. In Ontario, what changes are needed to building codes and planning processes to ensure greater uptake with regard to geothermal, solar, wind, natural light, combined heat and power, community energy and other emerging technologies?

- As noted above, the PPS promotes maximizing efficiency and conservation, but there is no reference to net zero communities.
- Energy efficiency performance and certification systems such as LEED and LID standards for buildings, communities and operations should be promoted.
- The Ontario Building Code will need to mandate construction of net zero buildings to ensure uptake. Pilot projects for innovative approaches such as re-use of grey water should be supported, with further support for required building code changes arising from research.
- The approach should be creative application of principles rather than minimal compliance with slowly evolving standards.
- The Province should support the Integrated Design Process (IDP) for buildings as with the Enbridge Savings by Design program.
- Additional advances could be achieved through the application of the Integrated Design Process (IDP) for new development and land use planning where design elements such as solar orientation, distributed energy, and LID approaches to stormwater can be considered from the outset
- The Province should support the development of tools that the planning profession could use to evaluate the carbon impact implication of land use development options. An example which could be used includes the Carbon Tool developed by Waterfront Toronto with the support of the Ontario Power Authority for the West Don and Lower Don Lands redevelopment precincts in the Toronto waterfront.
- The Province should provide leadership in identifying and making available climate information to support adaptation planning, and in translating climate science into useable information for decision makers.
- The Discussion Paper's emphasis is on prevention/mitigation, but adaptation is also an important part of planning for communities. Adaptation plans are more than "important" – targets cannot be reached without adaptation of existing buildings.
- There should be greater support for preparing Community Energy Plans.
- The requirements for low impact development should be clearer and flexible to accommodate ongoing innovation.
- The financial requirements for upgrades and ongoing maintenance of infrastructure must be addressed, e.g. for culvert capacities, retrofit of existing stormwater ponds, and future maintenance of LID features.
- New information, design standards and criteria are needed for infrastructure to be resilient in the face of climate change (e.g. new flood plain mapping, drainage capacities).

Buildings must be operated as efficiently as possible – if not operated properly, “green” buildings cannot achieve their sustainability objectives. Does Ontario have the skill base to build and operate such buildings and communities and, if not, what more can be done to train the appropriate expertise?

- Higher standards for building retrofits/renovations should be considered, to improve their energy efficiency. The Province could support the broader application and requirement for LEED certification for Existing Buildings Operation and Maintenance (EBOM), including training for building owners and operators.
- Energy Benchmarking and performance labelling should be reconsidered by the Province.
- Financial incentives including tax credits/rebates, development charges credits for ‘change of use’ should be considered.
- The Province should support the profession of facility managers. Professional facility managers are trained in architecture and design and will be vital to achieving goals in green building in the long term. Recent graduates from programs like Architecture and Facilities Management at Conestoga College and other colleges can help change facility management to a recognized and important profession.
- Building performance should be reported annually and that information should be made public.

When including emissions from electrical demand and heating gas, buildings in Ontario already account for about ¼ of our emissions. How could emissions from the existing building stock be reduced sufficiently to ensure Ontario achieves its targets?

- Regulations for the energy performance labelling of existing buildings as originally proposed in the Green Energy & Green Economy Act.
- There should be continuing incentives for retrofits of existing residences in all categories, including rental, high end and subsidized.
- Building codes should place greater emphasis on durability of structures and materials such as roof shingles.

What more could be done to ensure more Ontarians have the capacity to invest in low-carbon buildings and technologies?

- Financial incentives such as tax breaks/credits for achieving emission reduction targets, on a tiered basis.
- Continued change in the planning of cities and towns towards sustainable communities is giving Ontarians a better capacity to invest in low-carbon buildings and technologies.

4. Price on Carbon

This spring, Ontario will confirm the market mechanism or mechanisms that will be used to price carbon in Ontario. Some of the goals of carbon pricing include:

- **Ensuring greenhouse gas emissions *reduction certainty*;**
 - **Supporting and encouraging *innovation* in industry;**
 - **Improving human, social, financial, produced and natural capital *productivity*; and**
 - **Supporting households and business transitions to the low carbon economy.**
- OPPI supports the Province's desire to move towards a carbon neutral economy. OPPI and its membership are well positioned to contribute to this movement.
 - OPPI is active in promoting healthy communities. Health implications of climate change are an issue and should have been explored in the Discussion Paper. Health benefits should be costed and factored into the rationale for active transportation.

Given the above, what market mechanism or mechanisms will best achieve these goals in Ontario?

- OPPI supports costing of carbon emissions. The market mechanism is best left to the current consultation and policy development process – OPPI does not have expertise to advise the Province in this regard.
- Revenues from carbon pricing should be reinvested to support creation of low carbon economy and communities.
- It is important to recognize that carbon reductions need to be brought forward to all industries in order to foster a green economy. This includes industries such as steel manufacturing and automobile manufacturing.
- Investment in information infrastructure will allow Ontarians to work more flexibly which improves productivity and reduces congestion. The province and cities can lead the way by requiring a telework environment in their office environments. Investment in information infrastructure will allow Ontarians to work more flexibly which improves productivity and reduces congestion. The Province and cities can lead the way by requiring a telework environment in their office environments.

For those industries already facing challenges today due to changing economic conditions or technological advances in other jurisdictions, what carbon pricing market mechanism or mechanisms would be most beneficial? What design considerations should be taken into account?

- See above.

- Climate change issues cross traditional professional and institutional boundaries. The approach to resolving these issues must be collaborative, inclusive and integrative.
- Planning for climate change is critical for the sustainability and resilience of communities, as evidenced by the enhanced attention given to this topic in the 2014 Provincial Policy Statement.
- OPPI members are well-positioned to lead or participate in collaborative efforts with professionals from different disciplines, to facilitate, develop and implement approaches to climate change prevention and adaptation.
- Institutions including OPPI need to re-orient their professional education and training programs to enhance both knowledge of and commitment to planning for climate change.

5. Science & Technology

What areas of low-carbon science and technology does Ontario have competitive advantages or strategic interests?

- OPPI is committed to working with the design professions and technology developers to encourage the introduction of new technologies where these may speed adaptation and mitigation measures.

How can Ontario better support early stage research that could lead to the future commercialization of technologies that will provide economic benefits, while also helping Ontario achieve its carbon reduction goals?

- Ontario's schools should emphasise science literacy as a way of developing both cultural acceptance and expertise over the long term.
- Cultural awareness/acceptance also needs to be enhanced outside the educational system (e.g. notices on gas pumps).

We would be pleased to meet with you regarding our submission. Please feel free to contact me at (416) 668-8469 or by email at l.ryan@ontarioplanners.ca

Sincerely,



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Copy: Hon. Ted McMeekin, Minister of Municipal Affairs and Housing