

## SUMMARY REPORT

# TomorrowNow – Manitoba’s Green Plan: Stakeholder consultations on climate change

November 2015

## 1.0 Introduction

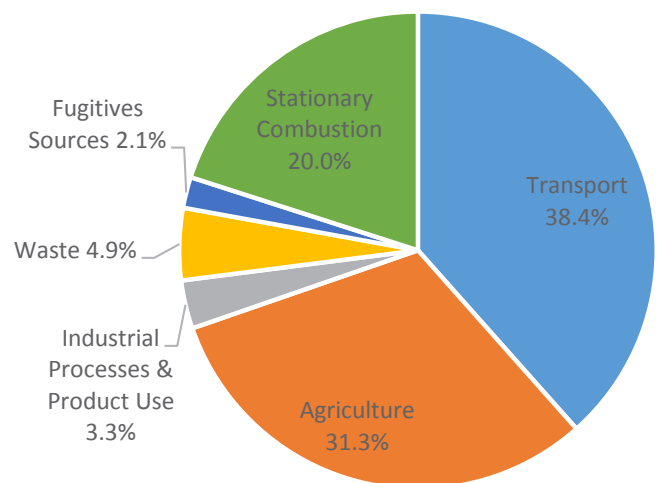
Manitoba’s consultation on climate change and the green economy employed a bottom-up approach comprising a series of stakeholder consultations and meetings. The goal of this process was to better understand the views of stakeholders on what the province’s green economy and climate change profile should look like and what needs to be in place to secure long-term sustainable development. A total of nine group consultations and 67 bilateral meetings took place from October 2013 to January 2015. On average 45 individuals attended each session.<sup>1</sup> This executive summary presents recommendations from stakeholders, as well as carbon policy options for Manitoba.

## 1.1 Manitoba’s Greenhouse Gas Emissions Profile

Before developing the new action plan, it was important to take stock of the province’s unique characteristics that drive emissions, adaptation needs and green economic opportunities. These characteristics shape the way we respond to climate change and pursue low-carbon economic development. The provincial greenhouse gas (GHG) portfolio is presented in Figure 1.

<sup>1</sup> Some individuals took part in more than one group session given their expertise and roles in Manitoba’s economy.

Manitoba has a unique emissions portfolio given its reliance on renewable hydro-electricity. Agriculture (31 percent) and transportation (38 percent) make up over two thirds of the entire portfolio (Figure 1). This is far different from other jurisdictions that have much higher reliance on fossil fuels in the electricity sector. Overall, fossil fuels consumption is responsible for roughly 60 percent of Manitoba’s emissions, a figure significantly lower than other jurisdictions.



**Figure 1:** Manitoba 2013 GHG emissions by sector

Source: Environment Canada (2015).



As a whole, all of Manitoba's sectors are vulnerable to the impacts of climate change, but at the same time there are opportunities to thrive in a low-carbon development path by capitalizing on innovative solutions.

## 2.0 Action Plan Recommendations

Achieving consensus across such a diverse group of stakeholders can be difficult. Despite this, some consensus recommendations were brought forward on the topics of governance, regulatory streamlining, indicators for tracking progress toward a green economy, as well as actions and policy suggestions related to partnerships, analysis and climate data, energy efficiency, renewable energy and key opportunities for reducing GHG emissions in Manitoba. IISD believes that these recommendations are likely to receive broad support, reduce emissions, help the province adapt to climate change, and transition to a green economy. These recommendations include:

### GOVERNANCE:

**Policy needs to be science-based to better inform** policy-makers and decision makers for strategic planning and business operations. Government budgets and key strategies should **implement a sustainability/climate change decision-making lens** early and consistently. **There should be systematic reviewing and reporting** on plans, policies, programs, revenue sources and expenditures to create green efficiencies and synergies in the pursuit of social goals. **Bring actors together**, including private, not-for-profit and academic sectoral players in order to put forward the best practices of good research and work in the sectors.

### REGULATORY STREAMLINING:

The formation of a civil service group (such as a task force or standing group) was suggested to **review regulations** that are no longer suitable or that hinder the green/bioeconomy. Also this review can examine **removal of barriers to adaptation**

as some policies and regulations need to change, in order to keep pace with existing climate shifts.

### TRACKING PROGRESS:

Eighteen green economy indicators were identified to allow Manitoba to track environmental protection, economic prosperity and social well-being. It is recommended that these indicators be adopted in annual reporting on the climate change and green economy action plan, they include:

**Environmental protection:** fossil fuel consumption; fossil fuel intensity; energy per capita; water quality index; drinking water quality; GHG emissions; production based CO<sub>2</sub> productivity; waste disposal; recycling; ambient air quality.

**Economic prosperity:** corporate social responsibility plans; final energy consumption of transportation per GDP; GHG emissions from transport/GDP; energy intensity of building inventory.

**Social well-being:** emissions intensity of jobs; green jobs; Indigenous, Aboriginal and Métis inclusion in the green economy; public health.

### ENERGY EFFICIENCY:

Increase **energy efficiency** through the new provincial demand-side management agency. **Increase access to clean technology**, particularly as there is a need to reduce the amount of energy being used to pump and move water. **Expand use of bioenergy**, biomass species that naturally grow under conditions of excess moisture could be used as feedstock for advanced transportation fuels and heating/cooling buildings. Also, as one of the biggest energy end users, the Government of Manitoba can establish **energy procurement targets** that require that a certain percentage of its energy supply come from renewables or other clean sources. This would increase the demand for clean energy and set an example for renewable procurement targets that others can follow.



## ANALYSIS:

Carry out analysis that integrates mitigation and adaptation when undertaking new initiatives to understand if the measures are complementary or conflicting. Add rigorous, **credible economic analyses** to actions that are important for addressing climate change policy in Manitoba. In addition to the environment/economy, it is important to understand social impacts and implications for job creation.

## CLIMATE DATA:

**Increased access, collection and generation of climate and emissions data and projections.** This was a common recommendation from almost all sectors. Manitobans desire more **information on the expected climatic changes** in our region and how this will affect our long-term well-being. This information can be used to help identify risks, adapt to climate change and become more resilient.

## PARTNERSHIPS AND EDUCATION:

**Investment in training and education** as measure to promote, support and enable technological innovation and improve skill sets that can contribute toward Manitoba's pathway for a low-carbon and adaptive society. Moreover, **collaboration with post-secondary institutions** can provide specialized training for green jobs. **Partnerships with municipalities** were also highlighted as a way to improve planning and investment in climate-resilient infrastructure.

## TRANSPARENCY:

Stakeholders remarked that transparency is necessary for Manitoba to have a credible approach to climate change. This can be realized through open channels of communication, understanding of the challenges and competing interests, and discovery of commonalities to foster robust and coordinated responses to address climate change and enable Manitoba to prosper. As the leading agency, Manitoba Conservation and Water Stewardship should coordinate with other ministries, involve different department heads, and have technical teams to support their decision

making on the actions and measures of the action plan. **Regular reporting on progress**, in an easily accessible format, can also go a long way to increase transparency. This could involve communication of green economy indicators, which could be released in an annual action plan reports to the public, as well as in the economic outlook.

## MANDATORY GHG REPORTING:

Broad support was offered for the implementation of **mandatory GHG reporting** at a level below the national reporting threshold to get a better picture of the provincial emissions portfolio. While no number was recommended as a consensus, it appeared that the majority of participants would support reporting at a 25,000-tonne threshold, provided that the Government of Manitoba pursued a consistent approach to other provinces, and with the federal GHG reporting system.

While not enjoying complete consensus, additional innovative suggestions came up that could represent strong outcomes for emissions and economic development. The most discussed topic—carbon-pricing approaches—is discussed in Section 3.0.

## 3.0 Carbon Pricing (Views and Options)

The following section first introduces the views of stakeholders on carbon pricing, followed by an examination of different approaches.

### 3.1 Views from Stakeholders

The topic that came up most frequently within consultations is the topic of carbon pricing. General responses to carbon pricing fell into the following groups:

- Those in favour of carbon pricing due to its ability to reduce emissions (mainly civil society).
- Those in favour of carbon pricing due to its ability to level the playing field with clean energy sources (civil society and renewable energy proponents).



- Those open to carbon pricing, but only as an equivalency approach to federal sector-by-sector GHG regulation (some industry).
- Those open to carbon pricing, but only in terms of developing an offset market (some industry).
- Those opposed to carbon pricing in any form (minority of industry).

Industry supporters of carbon pricing (or perhaps more accurately, those open to it) included a few caveats:

- Revenues should be recycled to sectors that pay the price (like the Manitoba coal tax being used to support biomass use).
- Manitoba should pay attention to how other jurisdictions are moving, to avoid acting out of line with trading partners.
- More in-depth engagement on topics such as models, linkage with other systems, and program design would need to be undertaken before they would support any approach.

Approaches discussed included, fossil fuel subsidy reform, extended producer responsibility, carbon levies, and cap-and-trade. Of these, carbon taxes were supported most by civil society, least by industry. Cap-and-trade had the opposite response. Fossil fuel subsidy reform was seen by many as a positive step, but would have relatively low impact given the small scale of fossil fuel production in Manitoba. Extended producer responsibility was seen as an intriguing alternative to the other models, but more information on how this model might work was requested.

### 3.2 Extended Producer Responsibility and Producer Responsibility Organization Approaches to Carbon Mitigation

**Extended Producer Responsibility (EPR)** is an approach where producers are responsible for the potentially hazardous waste disposal of products (e.g., depleted batteries, electronics, used motor oil, and old tires). This is often embedded in the form of a levy on the product to manage the waste it generates.

This levy is often paid to a **Producer Responsibility Organization (PRO)** that uses this levy to ensure proper management of the waste. The PRO is typically arms-length from government or industry (often a non-profit), but representing shareholders from groups affected by a levy imposed on waste (OECD, 2015). Typically industry would have one or more representatives appointed to a board or steering committee to guide the PRO, as would government and other stakeholders.

Adapting an EPR/PRO approach for greenhouse gases is unique in that there is no defined physical waste product to manage. The environmental impact is the greenhouse gas emitted from the fuel or process. As such, there is no need to deal with waste disposal or recyclers, and instead the funds from the levy can be directed to the promotion of lower-carbon activities and technologies.

This approach would require covered sectors of industry to pay a levy for the GHG emissions that their product or process generates. This levy is then managed by the PRO, to which industry members can make applications for funding, which are then reviewed/approved by the PRO. This ultimately allows for the recycling of the levy, aside from small administrative overhead for the PRO.

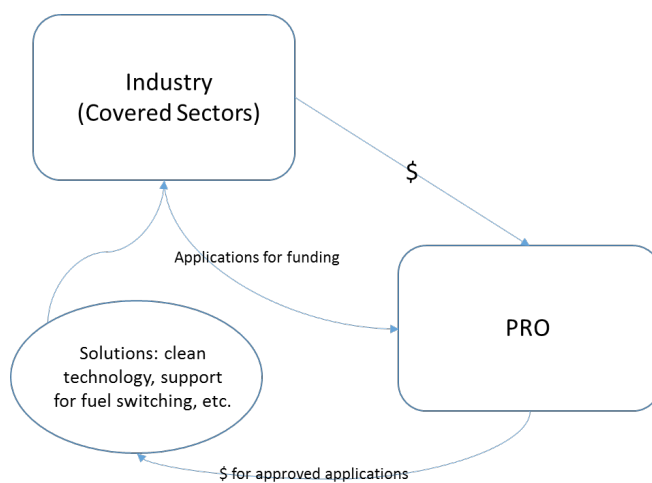


Figure 2. Model of a PRO for Carbon



For Manitoba, a **potential governance model** of a PRO can include the following elements:

- Detailed stakeholder engagement with potential covered sectors, ensuring that they have early opportunities to react to this potential model.
- An independent head of the agency, separate from government or industry.
- A board or steering committee with membership from representatives (e.g. industry associations) of covered sectors as well as representation from government.
- A non-profit model of operation, ensuring that the PRO or government is not perceived to be obtaining monetary gain from the EPR.
- A dollar-in-dollar-out approach as much as possible, with dollars from a covered sector equal as much as possible to dollars recycled back to that sector.
- Transparent annual monitoring and reporting.

### 3.3 Environmental Fiscal Reform Policy Options for Manitoba

IISD explored a select number of **Environmental Fiscal Reform (EFR)** policy options believed to be promising for Manitoba. As described by [Canada's EcoFiscal Commission](#), the key idea underpinning such reforms is that:

... [T]axes on pollution are better than taxes on income, jobs, or profits. Corporate and personal income taxes reduce incentives for investment and hiring, and tend to reduce economic growth. In contrast, taxes on pollution create incentives for innovating products and processes that avoid causing environmental damage. (Canada's EcoFiscal Commission, 2014, p.1)

EFR policies can support the province's green economy goals and when focusing on options that can either raise revenue or lower expenditure, can facilitate government investment into green economy initiatives and programs.

To illustrate the broader potential of EFR, IISD explored the examples of vehicle registration fee

reform and carbon pricing. The former was chosen because of the high proportion of vehicle emissions in the portfolio of most developed countries, the latter as it was commonly raised through stakeholder consultations. At first glance, both policies appear to be viable, environmentally beneficial, and have the potential to be either revenue neutral or revenue-raising. Both policies warrant further investigation and analysis to determine how they might be applicable in the province of Manitoba.

In the case of **vehicle registration fees**, the number of registered cars is on the rise in Manitoba. Ensuring that growth in the province's transport fleet does not result in major growth in provincial GHG emissions is an important environmental challenge for the province. Manitoba has 3.6 percent of the Canadian population but only 0.8 percent of the country's hybrid and electric vehicles (Manitoba Electric Vehicle Association, 2013; Stevens, 2014). By increasing the share of less emission-intensive vehicles, the province could lower GHG emissions from the transport sector, helping Manitoba to meet its climate change mitigation obligations and contribute to global emissions reductions. By changing the way registration fees are charged on different types of vehicles, the government could change the incentives around what types of cars consumers purchase. Vehicle registration fees could be calibrated based on a number of vehicle characteristics, including engine size, fuel intensity, and emission intensity. Each of these characteristics acts as a proxy for the greenhouse gas emissions associated with vehicle use (other than emissions intensity, which is a direct measure). Questions about cost-effectiveness, revenue neutrality, stringency, phase-in options, exemptions, and communications plan are key elements to consider and analyze in further research.

A policy involving a broad-based and stringent **carbon price** may be necessary for the province to make meaningful strides on GHG mitigation while also minimizing economic distortion. Four major design issues define the overall option space for carbon-pricing policy design (drawn from Canada's EcoFiscal Commission, 2015):



- **Instrument:** Is carbon priced via a tax? Cap-and-trade? A hybrid system?
- **Stringency:** How high is the tax, or how restrictive the cap? Will it increase over time?
- **Coverage:** What activities and sectors are included? Are there any exemptions?
- **Revenue recycling:** What becomes of any revenue raised by the system? Is it re-invested?

In pricing carbon there are two main options—**carbon taxes** and **cap-and-trade systems**. A carbon tax “directly sets a price on carbon by defining a tax rate on greenhouse gas emissions or—more commonly—on the carbon content of fossil fuels,” while a cap-and-trade system “caps the total level of greenhouse gas emissions and allows those industries with low emissions to sell their extra allowances to larger emitters” (World Bank, 2014b). In addition, these two types of instruments are not necessarily mutually exclusive, and **hybrid systems** are possible. For example, some European Union states have national carbon taxes but also link with the European Union Emission Trading System (EU ETS). And Mexico has since 2012 moved to enact a carbon tax on fossil fuels that is set using natural gas emissions as a benchmark. It is also considering a complementary cap-and-trade scheme to cover the electricity, industrial processes, gas and petroleum, agriculture, transport, and residential and commercial sectors (World bank, 2014a; ICAP, 2015).

Closer to home, Quebec has an emissions tax on transport fuels in addition to its cap-and-trade system, and Alberta’s hybrid system has elements of permit

trading as well as pricing through its technology funds. Such examples are noteworthy for Manitoba, which would likely seek a carbon-pricing policy that would build on its existing \$10/tonne coal tax. Table 1 presents a summary of environmental challenges addressed, behaviours and investment design, other relevant impacts, and winners and losers in establishing a carbon-pricing system.

In terms of subsequent analysis for carbon pricing, as outlined above, there are a wide range of carbon-pricing policy options available, and consideration of the merits of each would also need to consider GHG mitigation policy trends at the national and sub-national level in Canada, since the need for policy alignment and coordination may influence the ultimate choice of instrument. The details of policy design are critical in terms of the effectiveness, cost-effectiveness, and fairness of the policy. The province’s emissions inventory would also need to be examined to determine which sectors and groups would be most impacted and what type of exceptions, revenue-recycling provisions or differential targeting might be necessary. Manitoba should also continue to monitor the progress made by other provincial governments in implementing carbon-pricing policies and consider the benefits of harmonizing provincial policy over time. A complementary rigorous analysis of direct and indirect fossil fuel subsidies should also be undertaken to identify areas where carbon pricing would be at odds with existing policy.



**Table 1.** Summary of benefits and impacts of a carbon-pricing system

<b>Environmental challenge(s) addressed</b>	Carbon pricing is primarily concerned with the reduction of GHG emissions, but can also have ramifications for air and other types of pollution as a result of fuel switching, fossil fuel consumption reductions, technological change and innovation, and other outcomes.
<b>Behaviour and investment decision impacts</b>	Behavioural and investment decision outcomes can be significant under carbon pricing, because—based on economic self-interest—market actors will make different choices when they are forced to consider the social cost of their GHG emissions. However, the scale of change will depend on both the stringency and coverage of the policy. If the resultant carbon price is high, the response will be more significant. And if coverage is broad then decisions across a wider range of activities and sectors will be affected.
<b>Innovation</b>	As stated by the World Bank (2014b) carbon pricing can significantly stimulate market innovation, fuelling new, low-carbon drivers of economic growth, resulting in the greening of existing sectors; the creation of new, green sectors; and the creation of green jobs.
<b>Impacted stakeholders</b>	Beneficiaries under carbon pricing can include average citizens (both in Manitoba and globally) who benefit from the mitigation of the effects of climate change and its associated damages. Businesses can depend on a more predictable investment climate. Revenue-recycling provisions can also create a host of other beneficiaries depending on the purpose to which funds are allocated. Adversely impacted stakeholders under a carbon-pricing policy depend on the coverage of the policy, but typically include energy-intensive trade-exposed (EITE) sectors, those who rely on GHG intensive products, and those unable to reduce energy consumption. Offsetting and compensatory mechanisms can be put in place to assist those adversely impacted by carbon pricing, such as rebates for low-income households, subsidies or exemptions to EITE sectors, and input price supports for the agricultural sector.

## 4.0 Conclusion

Through open and transparent dialogues we were able to come forward with some consensus recommendations on the topics of governance, regulatory streamlining, indicators for tracking progress for a green economy transition, and some sector actions and policy suggestions related to energy partnerships, analysis and climate data, energy efficiency, renewable energy and reducing emissions in Manitoba. IISD is confident in putting these suggestions forward not only because of their broad support, but also because they will result in positive outcomes in terms of GHG mitigation, adaptation, and/or transitioning to a green economy.

There was a level of interest in carbon pricing that warrants further consideration, public discussion

and analysis. While there was not full consensus on this issue, it is certainly more support than expected, and perhaps Ontario’s move to carbon pricing has shifted some support in Manitoba (this development specifically was raised in stakeholder engagement sessions). IISD recommends further consideration of this topic, including alternate models of fiscal reforms such as Environmental Fiscal Reform and Extended Producer Responsibility examined in this report.

Overall we were extremely pleased with the open dialogue on issues, and found the reaction to IISD’s approach almost unanimously positive. We are confident in the recommendations we put forward based on this process and believe they form a strong basis on which to build the Manitoba climate change and green economy plan.



## References

- Canada's Ecofiscal Commission. (2014). Smart, practical, possible: Canadian options for greater economic and environmental prosperity. Montréal: Canada's Ecofiscal Commission. Retrieved from <http://ecofiscal.ca/reports/smart-practical-possible-canadian-options-for-greater-economic-and-environmental-prosperity/>
- Canada's Ecofiscal Commission. (2015). The way forward: A practical approach to reducing Canada's greenhouse gas emissions. Montréal: Canada's Ecofiscal Commission. Retrieved from <http://ecofiscal.ca/wp-content/uploads/2015/04/Ecofiscal-Commission-Report-The-Way-Forward-April-2015.pdf>
- Environment Canada. (2015). National Inventory Report 1990-2013: Greenhouse gas sources and sinks in Canada. Retrieved from <http://www.ec.gc.ca/ges-ghg/>
- International Carbon Action Partnership (ICAP). (2015). Mexico.
- Government of Manitoba (n.d.). The Coal and Petroleum Coke Ban for Space Heating Regulation. Retrieved from [http://www.gov.mb.ca/conservation/climate/coal\\_ban.html](http://www.gov.mb.ca/conservation/climate/coal_ban.html)
- Manitoba Electric Vehicle Association. (2013). Canadian electric vehicle sales reach almost 4,000. Retrieved from <http://manitobaev.ca/meva-articles/canadian-electric-vehicle-sales-reach-almost-4000/>
- Organisation for Economic Co-operation and Development (OECD). (2015). Environmental policy tools and evaluation: Extended producer responsibility. Retrieved from <http://www.oecd.org/env/tools-evaluation/extendedproducerresponsibility.htm>
- Stevens, S. (2014). EV Sales in Canada: January 2014 Update & Provincial Summary. Fleetcarma. Retrieved from <http://www.fleetcarma.com/canadian-electric-vehicle-sales-jan-2014-provincial-summary/>
- World Bank. (2014a). State and Trends of Carbon Pricing. Retrieved from [http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2014/05/27/000456286\\_20140527095323/Rendered/PDF/882840AR0REPLA00EPI2102680Box385232.pdf](http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2014/05/27/000456286_20140527095323/Rendered/PDF/882840AR0REPLA00EPI2102680Box385232.pdf)
- World Bank. (2014b). What does it mean to put a price on carbon? Retrieved from <http://www.worldbank.org/en/news/feature/2014/06/11/what-does-it-mean-to-put-a-price-on-carbon>



© 2015 The International Institute for Sustainable Development  
Published by the International Institute for Sustainable Development.

## INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT

The International Institute for Sustainable Development (IISD) is one of the world's leading centres of research and innovation. The Institute provides practical solutions to the growing challenges and opportunities of integrating environmental and social priorities with economic development. We report on international negotiations and share knowledge gained through collaborative projects, resulting in more rigorous research, stronger global networks, and better engagement among researchers, citizens, businesses and policy-makers.

IISD is registered as a charitable organization in Canada and has 501(c)(3) status in the United States. IISD receives core operating support from the Government of Canada, provided through the International Development Research Centre (IDRC) and from the Province of Manitoba. The Institute receives project funding from numerous governments inside and outside Canada, United Nations agencies, foundations, the private sector, and individuals.

### Head Office

111 Lombard Avenue, Suite 325  
Winnipeg, Manitoba  
Canada R3B 0T4

**Tel:** +1 (204) 958-7700

**Fax:** +1 (204) 958-7710

**Website:** [www.iisd.org](http://www.iisd.org)

**Twitter:** @IISD\_news



**IISD.org**