

Executive Summary:

Meeting Our Commitments – Reducing Emissions in Manitoba and Beyond



84 per cent of Manitobans are concerned about climate change with **76** per cent saying “that they are seeing or anticipate seeing impacts of climate change in their communities within five years.”³

Manitoba has an abundance of renewable energy, natural resources, strong and vibrant communities and an innovative and hard working population. We are the first jurisdiction in Canada to reflect Kyoto targets in legislation and we will continue to lead in helping the world reduce global emissions.

Already, Manitobans can be proud of their leadership on climate change action. Although our greenhouse gas emissions are low compared to other jurisdictions, our citizens recognized early on that we must be part of the solution to this urgent global problem. Through the *2001 Climate Change Task Force Report*⁴ Manitobans raised concerns about the impacts of climate change on our lakes, forests, northern communities and agricultural regions. At the same time, Manitobans identified many benefits that could come from taking action.

RECOMMENDATIONS IN THE TASK FORCE REPORT INCLUDED:

- increased production of renewable energy and biofuels
- expansion of energy-efficiency efforts
- the need to address emissions from our transportation and agriculture sectors and the impacts of climate change in the north

The report also recommended a broader public awareness campaign and the development of regional and national partnerships. The Manitoba government accepted the report and in 2002 released Manitoba’s first **Climate Change Action Plan**. Since that time, government, individuals, communities and businesses have been busy working together to implement a range of climate actions.

The foresight Manitobans showed in being concerned about climate change has proven itself today. Climate impacts have already been felt in our province with “one-in-100-year” flooding, drought and intense rainfall all in the last ten years.

Northern communities have been affected by unpredictable winter road conditions, making the transport of food, fuel and people more precarious. In the far north, polar bears are becoming thinner and are having fewer cubs as sea ice melts. Water quality issues, such as algae blooms on Lake Winnipeg, are becoming more of a problem, due to unpredictable and extreme weather conditions.

At the same time, since the release of the 2001 Task Force Report, **Manitoba has been internationally recognized as a leader on climate change action. Our province leads North America in the use of ground-source heat pumps, quadrupling annual installations in recent years.** Through innovative loan programs, Manitoba has been able to continue providing amongst the lowest heating and cooling costs on the continent to thousands of Manitoba homes, facilities and businesses.

³ 2004 KIsquared Research Poll.

⁴ <http://www.cecmanitoba.ca/Reports/PDF/ACF44A3.pdf>

It is estimated that we will lose much of the southern and northern edges of our boreal forest by 2050.

It is essential that we sustainably manage Canada's boreal forest and peatlands because they store 67 billion tonnes of carbon.⁵



In Manitoba, there are many ongoing activities, including working together with the Government of Ontario and First Nations Communities to sustain one of the largest untouched tracts of boreal forest in North America through a UNESCO World Heritage Site nomination.

In 2001, Manitoba did not have a single wind monitoring station. Today, there are 99 megawatts (MW) of wind power being generated at the St. Leon wind farm. In 2008, Manitoba Hydro is evaluating its Request for Proposals for 300 MW of new wind development. Wind power production has also meant great economic benefits to local landowners and communities.

Manitoba's ethanol mandate is now in place across the province. The expanded Husky plant in Minnedosa is increasing ethanol production from 10 million litres per year to 130 million litres per year. As well, new biodiesel plants are coming on board, largely as a result of Manitoba's aggressive strategy. The strategy includes removal of the fuel tax from pure biodiesel and Manitoba plans to become the first Canadian province with a biodiesel mandate. This growth in biofuel production, based on non-food grains, will not only result in significant greenhouse gas (GHG) emission reductions but will also provide direct benefits to Manitoba farmers as well as savings to all Manitobans on imported fuel.

Green buildings are becoming the beacons of revitalization in Winnipeg's downtown. They include Red River College's award-winning Princess Street Campus; Manitoba Hydro's new headquarters (designed to be one of the most energy-efficient headquarters in the world); **and the University of Winnipeg's new Environmental College.** The latter two are aiming to achieve LEED® Gold certification. In addition, since April 2007, new public building and major renovation projects that are funded by the Government of Manitoba, are required to meet stringent standards for energy efficiency and environmental performance. Manitoba has updated residential energy codes and is also in the process of introducing a new energy code for the commercial building sector.

Manitoba's cities and communities are leading in climate action by adopting made-in-Manitoba biodiesel and hybrid buses for their transit fleets and increasing energy efficiency efforts in schools, churches and municipal buildings. New energy efficiency programs are being made more accessible to lower income neighbourhoods and northern communities. As an additional benefit, these programs include employment and training in efficiency retrofits for local residents.

Individual Manitobans themselves are becoming increasingly energy efficient by taking advantage of energy audits and home retrofit loans. Manitobans are recycling and composting more and using alternative forms of transportation, thanks to community-based programs such as the Climate Change Connection and the Commuter Challenge.

Manitoba is also beginning to prepare for necessary adaptations to our changing climate. In the north, winter roads are being moved onto land for greater predictability, and new investments are being made in year-round infrastructure, including bridges and all-weather roads. As well, greater efforts are being made to protect the natural resources which are the most vulnerable to climate change - our boreal forests, lakes, rivers and polar bear population.

All these efforts have contributed to lower emissions in our energy and building sectors, and have better prepared us for changes in our natural environment. We have learned from experience that these actions are not only good for our environment, they also provide economic benefits that lay the foundation for a future green economy in Manitoba.



Manitoba Hydro's new energy-efficient head office is under construction in downtown Winnipeg

Manitoba was named the top regional jurisdiction in the world for action on climate change by BusinessWeek magazine in December 2005 – **“Sustainable development has become an economic lynchpin in the Canadian province of Manitoba.”**

Manitoba's green future

Manitoba has achieved a lot in a short time. But there is still more work to be done to reduce emissions both inside and outside our borders and move us to a greener economy.

We will build on our success in clean energy and energy efficiency by working to lower emissions in our transport and agricultural sectors. We are confident that action will lead to long-term environmental and economic benefits for all sectors in Manitoba.

In our **transportation sector**, greater use of biofuels and hybrid buses, incentives for low emitting vehicles, expanding plug-in technology, greater access to public transit, and biking and walking paths will help make our communities cleaner and greener, promote healthy lifestyles and, at the same time, support local economies.

In our **agriculture sector**, biofuel production, lowering on-farm energy use, supporting climate friendly cropping practices and organic and local food production will help reduce farm input costs, diversify the farm economy and lower greenhouse gas (GHG) emissions.

In Manitoba, all individuals, communities, producers, businesses, non-government organizations (NGOs) and governments have a role to play in working together to reduce emissions and create new economic opportunities. This updated plan contains:

- new actions for our transportation and agriculture sectors
- continued actions in our energy sector
- new opportunities to partner with Manitoba communities and businesses

Initiatives to further reduce emissions within government operations are also underway. Measures to meet Manitoba's targets will also be set out in **new climate change legislation**.

Meeting our Commitments – Reducing Emissions in Manitoba and Beyond

Manitoba is in a position to become one of the greenest jurisdictions on the continent and help the world reduce global emissions.

Since 2000, Manitoba's emissions have remained relatively stable and will decline by 2010. Recognizing that from year to year, reductions may be greater in some sectors and lesser in others, Manitoba aims to meet or exceed its Kyoto goals by reducing emissions by approximately three megatonnes (Mts) – from 20 Mts to 17 Mts by 2012 through in-Manitoba actions. This target will be reflected in new climate change legislation. **This will be the most aggressive legislative target of all regions in North America.**

Provincial Comparison of Greenhouse Gas Emissions Reduction Targets		
PROVINCE	EMISSIONS REDUCTION TARGET	TIMELINE
British Columbia	33% below 2007 levels	by 2020
Alberta	14% below 2005 levels	by 2050
Saskatchewan	32% below 2004 levels	by 2020
Manitoba Meets Kyoto Target *Legislated target	6% below 1990 levels	by 2012
Ontario	6% below 1990 levels	By 2014
	15% below 1990 levels	by 2020
Quebec Meets Kyoto Target	6% below 1990 levels	by 2012
New Brunswick	To 1990 levels	by 2012
	10% below 1990 levels	by 2020
Nova Scotia	10% below 1990 levels	by 2020
Prince Edward Island**	10% below 1990 levels	by 2020
Newfoundland and Labrador**	10% below 1990 levels	by 2020
Yukon	No explicit target	n/a
Northwest Territories	No explicit target	n/a
Nunavut	No explicit target	n/a
Federal	20% below 2006 levels	by 2020
Kyoto Targets	6% below 1990 levels	by 2012
Western Climate Initiative	15% below 2005 levels (regional target)	by 2020

*Manitoba will be the first jurisdiction in Canada and the first regional jurisdiction in North America to legislate the 6% below 1990 level emissions target.

**Regional target agreed to as a member of New England Governors/Eastern Canadian Premiers



Highlights of Manitoba's updated climate action plan

TRANSPORTATION

HIGHLIGHTS INCLUDE:

- expanding biofuel production and use
- developing a new made-in-Manitoba vehicle standard (modeled after the California standard)
- creating a new Driving Green program (including the hybrid vehicle rebate, measures to speed up the retirement of older vehicles, banning the import of older high-emitting vehicles and expanded anti-idling programs)
- supporting public transit by legislating a 50/50 funding agreement to share net operating costs including rapid transit
- expanding alternative forms of transportation including public transit and new commuter cycling opportunities
- setting new green fleet standards for Manitoba government vehicles
- legislating the use of low-speed, low or zero-emission vehicles
- introducing new technologies such as plug-in hybrid vehicles

MANITOBA'S LARGE EMITTERS

HIGHLIGHTS INCLUDE:

- Brandon coal facility; reductions from a phase down of Manitoba's last remaining coal-fired generating station mandated by new climate change legislation
- large landfills; reductions of methane from large landfills mandated by new climate change legislation
- other large emitters; coal-reduction strategy, including a tax on coal emissions and enhanced CO₂ capture projects

EXPANDING CLEAN ENERGY

HIGHLIGHTS INCLUDE:

- expanding energy efficiency through new building codes and standards and expanding programs for homeowners, including low-income housing across the province
- expanding energy efficiency through new programs for businesses and farms and new initiatives to promote energy efficient appliances
- expanding renewable power production through hydroelectric, wind, solar and biomass power production
- expanding green heat alternatives through greater support for geothermal and biomass
- new coal reduction strategy including a tax on coal emissions
- introducing new technologies such as air-to-air heat pumps

AGRICULTURE, FORESTRY AND COMMUNITY PROGRAMS

HIGHLIGHTS INCLUDE:

- expanding woodlot programs
- planting five million trees
- creating a new Manitoba Sustainable Agriculture Practices Program aimed at best practices to reduce on-farm GHG emissions including cropping and livestock strategies and wetland restoration incentives
- providing new support for municipal waste reduction including composting, water and energy efficiency, and transportation demand management

ADDITIONAL REDUCTIONS

- future climate action investments

REDUCTION GOALS

● Transportation	Up to one Mt
● Manitoba's large emitters	- 650,000 tonnes
● Expanding clean energy	- 670,000 tonnes
● Agriculture, forestry and community programs	- 680,000 tonnes
● Future climate action investments	- 250,000 tonnes or more
TOTAL REDUCTIONS IN MANITOBA	Over - 3.0 Mt



Beyond 2012

By meeting our 2012 targets Manitoba is on track to be the first jurisdiction to meet commitments under the Western Climate Initiative.

It is important to note that when Manitoba released its first action plan in 2002, it was to support an anticipated national framework to meet Canada's international Kyoto obligations. In this updated climate change plan, Manitoba is demonstrating that we have acted and will continue to act with or without a national Kyoto framework, and forge partnerships at a provincial and state level.

To this end, Manitoba has reached out to other Canadian premiers, and to mid-west and western United States governors, in an effort to work with these jurisdictions to address their climate change challenges. For example, by meeting our 2012 targets Manitoba is on track to be the first jurisdiction to meet commitments under the Western Climate Initiative.

Because Manitoba's emissions are low, the province's greatest contribution will be to lead the way on clean energy, energy efficiency, sustaining our forests and other measures that will help reduce or offset the emissions of fossil-fuel generation to the east, west and south of our province.

Already these activities contribute approximately 12 Mt in net reductions for our planet. This is equivalent to over half of Manitoba's total emissions. With continued actions in these areas we can make an even greater contribution to global emission reductions. New climate change legislation will require reporting on Manitoba's maximum contribution to reducing global emissions between 2020 and 2025.

Finally, and most importantly, this updated plan recognizes that Manitoba's 2012 goal is just a stop along the way to a green and low-carbon economy. As we look beyond 2012, we see opportunities to reduce our reliance on fossil fuels and create a self reliant and sustainable economy in a way that few other jurisdictions can. **Manitoba will aim to become coal-free and the lowest carbon economy on the continent.** We will aim to lead the way in low-carbon transportation systems through technologies such as the plug-in hybrid vehicle and expanding alternatives to vehicle use. We are setting the stage to become leaders in sustainable food and fibre production and in sustainable forest management and protection. In 2008 we will set longer range targets to reduce even further our reliance on gasoline, natural gas and coal.

We know we are up to the challenge of continuing our leadership on climate change action. And we will continue to lay the foundation for a healthy environment and a green, low-carbon economy that will benefit citizens both within and outside of Manitoba, for generations to come.