

Business Opportunities : **Low-Carbon Profits**



PHOTO: Destination Winnipeg Inc./Dodge Daton

“The investments that take place in the next 10 to 20 years will have a profound effect on the climate in the second half of the century and in the next. Our actions now and over the coming decades could create risks of major disruption to economic and social activity, on a scale similar to those associated with the great wars and the economic depression of the first half of the 20th century. And it will be difficult or impossible to reverse these changes.”

- Stern Review on the Economics of Climate Change, October 2006

In Manitoba, industrial and commercial activities account for only two per cent of our total emissions. Not only are our industrial emissions relatively low, due to Manitoba's abundance of clean power, but Manitoba businesses can also make and save money by implementing climate friendly practices and work towards green economic development.

An increasing number of studies (ex: Dow Jones Sustainability Index, Social Investment Forum Foundation) show there is a significant correlation between positive financial performance and corporate social and environmental policies and practices. In fact, recent studies (ex: Stern Review on the Economics of Climate Change (UK)) show it is significantly more costly to do nothing. Using the results of formal economic models, the review estimates that if we don't act, the overall costs and risks of climate change will be equivalent to losing at least five per cent of global GDP each year. If a wider range of risks and impacts is taken into account, the estimated losses could rise to 20 per cent of GDP per year, or more.

Today, global corporate leaders that influence business in Manitoba (ex: Goldman Sachs, Lloyd's of London and PricewaterhouseCooper) are advising their clients to prepare for the business impacts of climate change. This is a trend that could have local impacts on access to capital, insurance premiums and assessments of risks and liabilities. At the same time, markets for greener products are growing. Examples of these products include renewable energy, energy efficiency products and services, low-emitting vehicles, buses and trucks, green building design and materials, sustainable food and forest production.

Increasing oil and gas costs, investor concerns about climate-change related risks, and costly inefficiencies in our businesses, all affect our ability to compete. By trimming wasteful practices and taking advantage of emerging markets for low-carbon products, our local companies can save money, make money, protect people and the environment and be better prepared for the future.

While many Manitoba companies are benefiting from Manitoba Hydro's Power Smart and other lean manufacturing programs to improve their energy efficiency and reduce material consumption, many more businesses have not taken advantage of these savings. Many small and medium-sized (SME) companies find it challenging to allocate time and resources to reduce their consumption of energy, water, materials and toxic substances. Yet, by doing so, they can improve productivity and their competitiveness in the marketplace. Businesses that do make a commitment to pursue climate friendly practices will be better able to take advantage of the opportunities that lie ahead.

There are particular sectors within the province that are positioning themselves for growth within a green and carbon-constrained economy. As outlined earlier in this plan, Manitoba's clean energy sector is poised for growth. Geothermal power is generating annual sales of over \$30 million; investment in wind power is growing; construction of the Wuskwatim dam is underway; biofuels production is expanding to meet Manitoba's mandates; there is support for biomass sources for heating; and green building design and construction will become a growing industry thanks to new policies and private industry interest. Other areas including bioproducts and sustainably grown agricultural products are expected to benefit from new markets.

In addition, Manitoba is home to some of the largest insurance companies in Canada, including Great-West Life, Federated Insurance Co. and Wawanesa Insurance. There is a growing international trend encouraging insurers to calculate the potential risk of climate change to industry. This presents an opportunity to collaborate more closely with this sector, to educate the business community on the advantages of reducing their risks and preparing for the impacts of climate change.

Actions to date

- **Manitoba's Manufacturing Investment Tax Credit** targets plants and equipment purchased for use in manufacturing or processing in Manitoba. Qualified property includes Class 43.1 renewable energy and energy conservation equipment and is extended to expire in 2020 instead of 2012
- **The Green Energy Manufacturing Tax Credit** promotes the production and purchase for use in Manitoba of new machinery and equipment used to generate renewable energy. The refundable income tax credit will be equal to 10 per cent of the value of qualifying property produced in Manitoba and sold for residential or commercial use in Manitoba before 2019. Qualifying property will initially include equipment for wind power, solar energy, geothermal energy and hydrogen fuel cells.
- In December 2005, with Manitoba industries working together, our province met its commitment to implement measures under **Canada's National Action Plan on Ozone Depleting Substances (ODS) and Other Halocarbons** by amending the ODS regulation to include hydro fluorocarbons (HFCs) and perfluorocarbons (PFCs), both potent greenhouse gases.
- Since 2001, Manitoba Hydro has expanded energy efficiency programs that provide direct benefits to small and medium-sized businesses.
- During 2006, the provincial government supported the development of a business guide on climate change with the Manitoba Chamber of Commerce and the Climate Change Connection, our public education hub. One hundred and eighty copies of this document were distributed throughout Manitoba and an electronic version is available at www.climatechangeconnection.org.
- In October 2006 in Winnipeg, Manitoba hosted the largest **Canadian Wind Energy Association national conference** and trade show to date. Nearly 1,400 people travelled to Winnipeg to investigate this rapidly growing industry.
- In October 2007, Manitoba Science, Technology, Energy and Mines hosted **Manitoba's Green Future: A Dialogue on Climate Change Action and Greening our Economy**. This conference brought together business and community leaders to address the risks and opportunities presented by climate change. This all-day event was sold out early, with over 250 Manitobans participating. The workshops provided an opportunity to explore strategies and actions participants and their governments will need to pursue into the future.

New Flyer Industries has capitalized on export markets by becoming the leader in manufacturing hybrid and alternative fuel buses. During early 2005, Manitoba hosted the first hydrogen-engine-powered bus on-road test in Canada. A hydrogen hybrid internal combustion engine (HHICE) cold weather test was conducted in Winnipeg. A New Flyer bus, equipped with an HHICE, was tested in regular service. In 2010, the Vancouver Winter Olympics will host the world's largest fleet of zero-emission hydrogen buses, all manufactured by New Flyer Industries.



LOEWEN WINDOWS, Steinbach

Loewen manufactures triple glazed windows which are the most thermally efficient products in the market. They are the only North American window manufacturer that offers Forest Stewardship Council (FSC) certified wood windows which are accepted for Leadership in Energy and Environmental Design (LEED®) credit in buildings. Heat for their 600,000 sq. ft. manufacturing plant is created with their own wood off cuts. The resultant sawdust is sold to the local farming community for animal bedding.

GRANNY'S POULTRY

Its new head office and hatchery is the most energy efficient, technologically advanced hatchery in the world, using a unique combination of heat recovery, geothermal, and state-of-the-art energy management systems. They raised the temperature of fresh -29°C outside air to +19°C using geothermal heat to pre-heat the air and by capturing the natural heat from embryos in incubating eggs. The geothermal system will also provide all cooling requirements in summer months, eliminating the need for rooftop HVAC units. The new closed-loop system in the hatchery is projected to result in a 70 to 80 per cent reduction in water consumption and discharge.

Manitoba's environmental consulting firms are helping building owners become part of the climate change solution.

Milestone Project Management is a Manitoba-based business that helps with the sustainable practices of deconstructing buildings and using recycled materials in retrofitting or new construction. The business' locally acquired expertise is now being used in the southern U.S. to help with the reconstruction following Hurricane Katrina.

- In November 2007, Manitoba hosted Canada's first **Plug-In Hybrid Electric (PHEV) conference and showcase**.
- Manitoba has launched an enhanced oil recovery strategy that will reduce Manitoba's GHG emissions by storing CO₂ in oil reservoirs.

Next steps: to 2012 and beyond

- **GREEN ECONOMY JOBS OF THE FUTURE.** The provincial government recently announced that a new \$15.1 million training facility would be built at Red River College specifically focused on leading-edge research for the new green economy. The facility will open the door to train the skilled workforce that will be needed for Manitoba's growing green economy.
- **SMART SHOPS.** A new program will be launched to provide practical onsite tools to conserve energy and water and reduce waste in Manitoba's small and medium-sized business community. Green Manitoba and Manitoba Hydro will help small and medium-sized business owners identify actions they can take, programs that exist to implement changes and access information required to take the next steps to green their operations.
- **MANITOBA CLIMATE ACTION PORTAL.** Manitoba has signed an agreement with the Canadian Standards Association and the Canadian Climate Exchange to establish a registry that will showcase emission reduction projects in Manitoba. It will also help meet demand from organizations wishing to reduce their emissions. This initiative will be linked to regional and international partnerships, including the North American climate registry that currently has approximately 40 state, regional and tribal members.
- **A GREEN BUSINESS NETWORK WILL BE FORMED IN 2008.** This group will identify fiscal mechanisms, such as tax shifting, and will compile and promote best practices and success stories that are taking place in Manitoba businesses. The International Institute for Sustainable Development (IISD) will assist in this task. The effort will include an advisory committee to the minister of Manitoba Science, Technology, Energy and Mines.