



Examples of Climate Action by Manitoba Business

Context

Manitoba Chambers of Commerce together with local Chambers of Commerce and the International Institute for Sustainable Development convened a series of 11 Climate Action Forums across Manitoba in 2019 to share and learn about examples of climate actions taken by small and medium-sized enterprises (SMEs) and to discuss barriers that are impeding action. At the forums, businesses shared examples of climate actions and barriers encountered, relating to both the operational aspects of their business (referred to as the "home game") and in delivering their products & services (the "away game").

Home Game Examples of Climate Action

Concerning climate action taken in business operations (i.e., buildings, facilities, vehicle fleets, etc.), the following examples were observed:

Building Heating & Cooling Efficiency

Biomass

- Installed biomass boiler for heating
- Installed biomass generator for heating (reduced natural gas usage by 80%; sourced by agricultural pellets)

Geothermal

- Installed a geothermal system as long-term cost-saving measure identified via life-cycle operation analysis
- Planning to implement a new spray booth technology that is more energy-efficient for heating and cooling
- Geothermal and cool bar technology installation for heating of latest campus building, including building envelope sensors

Efficiency

- · On-demand hot water heaters
- Improved boiler efficiency
- · Heating efficiency for branch offices (temperature range controlled centrally)

Building Electricity Efficiency

Upgrades

- · Energy efficiency upgrades and retrofits in facilities
- Installed LED lighting for improved energy efficiency and lower costs, including with auto on/ off
- · Installing energy-efficient lighting in new buildings and renovations
- Administering "Climate Smart for Business" program, including lighting retrofitting and solar energy initiatives (two 50-KW systems)

Strategy

- Set goal to be net-zero by 2030
- LEED Standard building construction

Solar

- Solar panel array for downtown campus
- · First in North America net-zero building envelope skin of photovoltaic glass

Reducing Vehicle Emissions (Directly and Indirectly)

Direct

- Installation of geotextiles that can make road construction projects more fuel-efficient by reducing the mechanical compaction effort
- Reduced emissions from shipping and receiving process by consolidating supplier shipments to one central location and using more fuel-efficient vehicles for pickup
- Managed shipping and receiving schedules for efficiency
- · Incorporating hybrid cars in vehicle fleet
- · Planning for charging station at dealership
- · Increasing efficiencies in vehicle delivery systems
- Locating campus downtown for access to public transportation
- Idle-free zones

Indirect

- · Teleconferencing
- · Mobile app to support carpooling
- · Using videoconference technology to limit meeting-related travel

Recycling

- · Increased recycling
- · Recycling program implemented
- Reuse of cardboard by local schools
- Recycling of cardboard (including compaction)
- · Campus recycling program

- · Plastic bag reduction
- Landfill cleanup
- · Tracking volume of garbage disposed

Carbon Sequestration

Urban forestry

Offsets

- Purchase carbon offsets for travel
- Carbon-neutral strategy through greenhouse reductions and purchasing of carbon offsets

Green Procurement and Other Actions

- · Green procurement
- Water-saving strategies as a cost-savings and green strategy
- Green efforts that contribute to lower emissions including local garden for herbs, composting and selling toothbrushes made of bamboo

Away Game Examples of Climate Action

Concerning climate action taken through business products and services, the following examples were observed:

Supporting Green Investment

- Providing socially responsible investment (SRI) options to clients. One criterion of the SRI fund was for no fossil fuels.
- Providing a "green account" where there are no paper statements mailed and \$1 goes toward a green initiative
- Providing mortgage financing for net-zero initiatives in the community

Integrated Planning and Design

• Participating in integrated design-build processes whereby multiple contractors work with client to help optimize building performance and efficiency

Supporting Building Energy Efficiency

Services

- Conducting air-pressure tests of homes for heating/cooling efficiency
- Providing solar equipment and installations for customers

Installations

- Manufacturing and installing high R-value steel frame construction based on an innovative technology adapted from the U.S. and made available in Canada. Provides a co-benefit as it has better wind stability compared to wood construction
- Providing businesses local access to a "Community Energy Advocate" staff person
- Providing energy-efficient renovation services to customers
- Provided research support for the Manitoba Trucking Association on the benefits of incentivizing increased fuel efficiency in long-haul trucks

Green Construction and Materials

- Using a modular construction method that is more energy-efficient and has less site disturbance
- Offering heritage building retrofits and adaptive reuse. Practice can be more resource- and energy-efficient
- Providing sustainable construction R&D
- Repurposing plastics and wood waste into useful products for consumers, thereby reducing carbon emissions from plastics production/use

Agriculture Efficiencies

- · Canola oil extraction technology that would increase energy efficiency
- Regenerative farming practices for supporting better soil management and carbon sequestration
- Consolidation of shipping and receiving process to be more fuel-efficient and save costs
- Increased feed efficiency for reducing methane emissions from cattle and lower costs (up to 40% reduction in feed)
- Reduced- and zero-tillage practices for enhanced soil management and carbon sequestration
- Reduced- and zero-tillage practices for managing soil moisture for extreme weather conditions and enhanced carbon sequestration
- · Capital expenditure projects include GHG emissions assessment
- GPS technology for more fuel-efficient agriculture practices. Provides fuel-efficiency improvements and more efficient fertilizer application

Carbon Sequestration and Health Benefits

 Planning to offer green rooftop designs (co-benefits for urban cooling and carbon sequestration)

Supporting Green or Reduced Transportation

Infrastructure

• Installed electric car charging station (for public use)

R&D and Supply

• More options for hybrid and plug-in hybrid electric vehicles will be available in future for all vehicle lines.

- Providing transportation fuel-efficiency R&D with the local electric bus manufacturing industry
- · Mining of nickel as a market opportunity to service the electric car battery market globally

IT-related Action

- · Supporting the use of telemedicine whereby patients can meet with a doctor over Skype
- Using videoconference technology to limit meeting-related travel
- · Electronic banking
- · Use of digital signatures for executing transactions

Planning-related Action

• Promoting infill development in cities. Provides transportation emission reduction potential

Supporting Recycling

- Providing mattress and electronics recycling services with social enterprise model employing formerly incarcerated persons
- Providing hard drive backup and disposal service to increase uptake of computer recycling by consumers
- · Offering electronics recycling service

Sustainability-Related Consulting Services

· Providing business development support for cleantech companies

For information on examples of climate action by Manitoba business and to access tools and resources for taking climate action, visit the Climate Action Toolkit for Manitoba Business https://mbchamber.mb.ca/climate-change-action-toolkit-for-manitoba-business/.

About the Partners

The Manitoba Chambers of Commerce was established in 1931 and is the umbrella organization for Manitoba's chamber movement. With a membership comprised of local chambers of commerce as well as direct corporate members, the MCC is Manitoba's largest business lobby, representing more than 10,000 businesses and community leaders. Its mission is to champion sustainable economic growth leading to greater prosperity for business and communities in Manitoba.

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The International Institute for Sustainable Development (IISD) is an independent think tank championing sustainable solutions to 21st-century problems. Our mission is to promote human development and environmental sustainability. We do this through research, analysis and knowledge products that support sound policy-making. Our big-picture view allows us to address the root causes of some of the greatest challenges facing our planet today: ecological destruction, social exclusion, unfair laws and economic rules, a changing climate. IISD's staff of over 120 people, plus over 50 associates and 100 consultants, come from across the globe and from many disciplines. Our work affects lives in nearly 100 countries. Part scientist, part strategist—IISD delivers the knowledge to act.