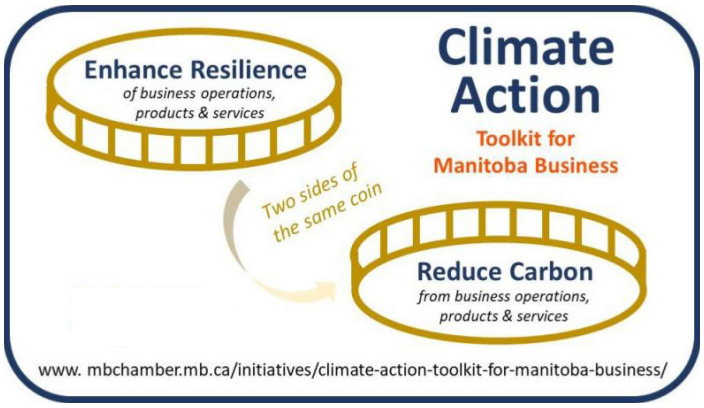
MANITOBA CHAMBERS OF COMMERCE

Synthesis of Examples

Climate Action by Manitoba Businesses

Synthesis of Examples, Barriers, and Enablers from the 2023 Climate Action Forums



Context

In 2023, the Manitoba Chambers of Commerce, together with local Chambers of Commerce, convened a series of Climate Action Forums across the province. At the Forums, businesses received introductory training in two core areas of climate action, namely:

1. **Assessing climate risk and enhancing resilience; and**
2. **Reducing carbon emissions via the circular economy.**

As well, the use of nature-based solutions as a cost-effective means to help achieve goals relating to both of the above aspects, was introduced at the Forums. Importantly, Climate Action can be seen as two sides of the same coin, with climate adaptation on one side—to enhance the resilience of a business to the impacts of climate change, and climate mitigation on the other—to help limit the extent of climate change, locally and globally.

To help you get started in taking climate action, visit the Climate Action Toolkit for Manitoba Business where you can access all of the primer documents and training materials from the Forums, free of charge.

The Climate Action Forums also provided businesses across Manitoba with an opportunity to share examples of how they were taking climate action through their home game – that is, through their business operations and facilities – as well their away game – the products and services they offer. This document summarizes the climate action examples shared at the Forums by Manitoba businesses, as well as the barriers and enablers they experienced in their climate action journey.

Assessing Climate Risk and Enhancing Resilience

Manitoba—particularly northern Manitoba—is already experiencing the effects of climate change along with the rest of Canada. Historical records show that every year since 1998 has been warmer than the 20th century average (Government of Canada, 2022). By the end of the 21st century, Manitoba's summer climate could be much like that of Kansas and northern Texas, a change that "...would necessitate a complete reworking of how we live and thrive in our environment" (Prairie Climate Centre).

Prudent climate action by Manitoba businesses, therefore, necessitates assessing risks and opportunities posed by climate change and taking steps to enhance resilience and leverage new market opportunities.

Home Game Actions by Manitoba Businesses · Business operations and facilities

- **Burying power lines:** To help enhance their resilience to an already changing climate, **Southport** in Portage la Prairies is burying power cables in its properties to reduce the risk of downed lines due to extreme weather events.
- **Business continuity planning:** Flin Flon-based Community Futures Greenstone used a **Business Continuity Planning Tool** developed by BC Futures to help enhance their resilience to wildfires.
- **Décor Cabinet Company:** installed a rainwater capturing system for its facility roof, which combined with its use of high-efficiency water fixtures, saved approximately 300,000 gallons of water during the 2021 drought.

Away Game Actions by Manitoba Businesses · Business products and services

- **Risk assessment:** Assiniboine Credit Union is exploring how to implement the **B-15 Guideline on Climate Risk Management** issued in March 2023 by the Office of the Superintendent of Financial Institutions Canada for Federally Regulated Financial Institutions. The expected outcomes of the B-15 Guideline are that participating financial institutions: understand and mitigate against potential impacts of climate-related risks to its business model and strategy; have appropriate governance and risk management practices to manage identified climate-related risks; and remain financially resilient through severe, yet plausible, climate risk scenarios, and operationally resilient through disruption due to climate-related disasters.
- **Risk assessment:** The University of Winnipeg's Northern Sustainable Prosperity Initiative, together with Stantec Engineering, and the International Institute for Sustainable Development undertook a climate change risk assessment of the Manitoba-Nunavut Supply Chain Corridor in 2015. The PIEVC protocol was used to assess climate risks for the freight services hub in Thompson, the inland marine system at the Port of Churchill, and the airport at Rankin Inlet. A strategic foresight exercise was also undertaken with facility operators and revealed the possibility of a "double whammy effect", whereby climate change puts direct physical stress on northern supply chain infrastructure at the very same time that it brings about an increase in demand due to ice-free commercial shipping lanes in the Arctic.

- **Resilience planning:** The Climate Action Team (CAT), a coalition of environmental organizations in Manitoba, has prepared a series of reports articulating Manitoba's Road to Resilience, a pathway to a resilient and fossil-fuel free economy and society.

- **Indoor air quality:** BGP Environmental Group provides products and services for improving indoor air quality in homes and offices. Maintaining healthy indoor air quality will be an important part of enhancing resilience to climate change in the face of increased wildfires. Such products and services are also important to protect against air pollution in urban environments from carbon emission sources such as gas-engine vehicles and industrial facilities.

Reducing Greenhouse Gas Emissions

The concentration of carbon dioxide in our atmosphere is literally off the charts, according to data reported by NASA. After over 800,000 years of natural variation from between 180 parts per million (ppm) to 300 ppm, the atmospheric carbon dioxide concentration surpassed this normal range in 1950 and today is a whopping 420 ppm, and still increasing!

The global and local temperature warming trend will only stop once we cease emitting carbon to the atmosphere. The terms "net neutral" or "climate neutrality" are heard more often now in business circles and are shorthand for strategies that generate no overall new emissions of carbon by an organization, business, city, province, or country.

Reducing carbon emissions now is, therefore, imperative. There are many ways in which Manitoba businesses are already starting to reduce their greenhouse gas emissions and become "net neutral". Here are some examples.

Home Game Actions by Manitoba Businesses · Business operations and facilities

Measuring and Reducing GHG emissions

- Assiniboine Credit Union (ACU) has been measuring its GHG emissions since 2010, including from waste generation, paper usage, energy consumption, business travel, and employee commuting habits. In 2018, ACU became the first carbon neutral credit union in Manitoba.

- In 2018, under a pilot initiative led by the Manitoba Environmental Industries Association (MEIA), Southport in Portage la Prairie became the first Climate Smart certified company in Manitoba. Climate Smart is a software and training program now operated by BMO Radicle to help companies measure, reduce, and report carbon emissions. Their plans for the future involve real-time data collection on buildings emissions to help assess and improve the performance of their many Climate Smart initiatives.

- Décor Cabinet Company conducted an energy audit to inform its efficiency improvements. As well, the company installed a rainwater capturing system for its facility roof, which combined with its use of high-efficiency water fixtures, saved approximately 300,000 gallons of water.

- Winkler-based technology firm **Valley Fiber** limits carbon emissions in its operations by promoting carpooling among employees, using LED lighting and high-efficiency furnaces, and by using electric vehicles in their fleet.

- **3M** in Morden applies the ISO 14001 standard for Environmental Management Systems and ISO 50001 standard for Energy Management and is striving to achieve the 3M Corporate goal of carbon neutrality in operations by 2050 as well as improving energy efficiency, indexed to sales, by 30% by year 2025. Recent improvements include recently switching to a condensing boiler system which has resulted in greater than 30% savings in natural gas usage, as well as using high-efficiency lighting throughout the site.

- **Boeing**'s annual **Sustainability Report** provides data on its Net Zero Indicator covering Scope 1, 2 and 3 emission types[1]. Boeing's Winnipeg facility is the largest aerospace composite manufacturer in Canada with more than 1000 employees and 700,000 square feet of facility space.

- **Winpak** has a corporate goal to achieve zero landfill waste by 2025 and currently, 40% of its electricity use comes from renewable sources. The company's production facility in Winnipeg is heated by its machinery, significantly reducing their energy consumption. Winpak has benefited from the Manitoba Hydro Assessment Program in the early stages to better understand where energy savings could be achieved. And they have their own engineering department which has a corporate mandate to reduce energy consumption by 3-5% per year, driving progress toward energy efficiency.

Reducing Travel

- **Assiniboine Credit Union** (ACU) encourages and track low-carbon commuting habits of employees, such as active transport and public transit. ACU also provides opportunities/policies for employees to work from home.

Supply Chain Management

- Shipping orders at Russell-based, **Tinhouse Designs and Coffee Company**, are consolidated in a way that increases cargo efficiency, reducing the need to drive more than once to the same area in town. Herbs and other ingredients come fresh from the back garden, which not only supports the local diet but also reduces the need to ship ingredients into the coffee shop and reduces unnecessary packaging entering its premise.

Aligning with Environment, Social & Governance (ESG) Principles

- **Assiniboine Credit Union** (ACU) is a certified B-Corp member! To achieve a **B-Corp Certification**, a company must demonstrate high social and environmental performance according to specific criteria, make a legal commitment by changing their corporate governance to be accountable to all stakeholders, and exhibit transparency by allowing information about performance to be shared publicly.

- **BizforClimate** is a business-led not-for-profit corporation based in Manitoba that offers a platform for non-partisan advocacy and action helping business owners to advance climate solutions and promoting policies that support the rapid transition to an emission-free, environmentally sustainable economy.

[1] Scope 1 and 2 include direct emissions from the operation of a business' operations and facilities. Scope 3 emissions are indirect, coming from a business' product and services value chain. For more information on GHG emissions terminology visit www.ghgprotocol.org.

Purchasing Carbon Credits to Offset GHG Emissions

- Assiniboine Credit Union (ACU) reduces its GHG emissions where possible and purchases a small amount of carbon credits to offset emissions that can't be reduced directly. In 2022, ACU offset 1000 tonnes of carbon emissions from a range of providers including the Fair-Trade Certified Gold Standard in Ethiopia, SunCulture Solar Water Pumps in Africa, and the Katingan REDD+ Forest Protection project in Indonesia.

Away Game Actions by Manitoba Businesses · Business products and services

Decarbonizing Loans and Investments

- Assiniboine Credit Union (ACU) is exploring how to measure Scope 3 emissions relating to its financial products. This is in addition to tracking Scope 1 and 2 emissions that come from internal operations. These Scope 1, 2, and 3 emission types are formal policy lingo used by the Greenhouse Gas Protocol, a global standardized framework for measuring and managing GHG emissions from private and public sector operations. To help with ACU's efforts in this regard, they have joined the Partnership for Carbon Accounting Financials, a global network of financial institutions working together to develop and implement a harmonized approach for assessing and disclosing GHG emissions associated with loans and investments.

Building and Property Management and Renovations

- Southport in Portage la Prairie is aligning its property management approach with net-zero thinking, to ensure that development and operations do not contribute any overall greenhouse gas emissions. This includes efforts such as net-zero builds, LEED Silver certified buildings, switching to electric water and commercial heating, and fleet conversion to electric vehicles, among others.

- Watson's Roofing and Siding provides products and services for helping homeowners and businesses increase energy efficiency by adding insulation during siding renovations.

- The Winnipeg-based not-for-profit organization, Green Action Centre, offers a Green Audits Program to help businesses and organizations assess their environmental impact and develop strategies for reducing impacts.

Supply Chain Management

- Herzing College offers a 12-month online diploma on supply chain management including, among others, skills for lowering costs and improving efficiency at every stage of the supply and logistics chain process, from manufacturing to purchase.

- Décor Cabinet Company uses sheet goods that are U.S. EPA TSCA (Toxic Substances Control Act) Title VI compliant to limit formaldehyde emissions from wood products. As well, its wood products are sourced from a recognized sustainable forestry program.

- Shipping orders at Russell-based Tinhouse Designs and Coffee Company are consolidated in a way that increases cargo efficiency, reducing the need to drive more than once to the same area in town.

Supporting the Electric Vehicle Transition

- Winnipeg-based, EasyEV Inc., offers product sales, installation and turn-key EV charging solutions for residential, commercial, municipal, fleet and multi-unit buildings, including condos, apartments, and townhouses. EasyEV has an existing and growing Manitoba-wide network of certified installers, helping to keep local money local, to support communities across the province.

Virtual Meetings and Remote Work

- Winkler-based technology firm, Valley Fiber, installs fiber optics and telecommunications infrastructure and systems that help support digital workplaces and work from home opportunities.

- Winnipeg-based, Build Films, offers services supporting remote/virtual meetings in an effort to avoid unnecessary travel.

Green and Renewable Energy

- Aki Energy, A First Nations social enterprise, installs geothermal energy systems that deliver a 50% reduction in heating and cooling costs…approximately $1000 saved annually for every household. As well, Aki's social enterprise business model includes training and certifying First Nations workers to install, maintain, and troubleshoot their geothermal units, building local capacity in key trades including plumbing, electrical, HVAC, and heavy equipment operation. For every 100 homes retrofitted, there is approximately $1 million in labour. To date, Aki has helped communities install $25 million worth of geothermal energy systems. To date, Aki has installed over 700 renewable energy retrofits.

- Morris-based company, Triple Green Products, provides green energy products and services for commercial heating, composting and dehydrating, and drying, helping communities and the agriculture, commercial and industrial, and greenhouse sectors reduce the GHG emissions.

Carbon reductions can also be achieved through circularity approaches. In a circular economy, waste is reduced or eliminated, and the use of new resources is minimized by bringing traditional waste products back into production, by extending product life-cycles and by using renewable resources and energy (Supply Chain Manitoba, 2022).

Here are some examples of Manitoba businesses participating in the circular economy and reducing carbon emissions.

Reusing and the Circular Economy

- Harvest Manitoba provides opportunities for Manitoba businesses to deliver their food leftovers so that it can be provided to those in need, rather than going to the landfill as waste where it would generate methane during decomposition. This example also demonstrates an important co-benefit through enhanced food security for vulnerable populations.

- Décor Cabinet Company uses a solvent reclaiming system for its stains and colors.

- Valley Fiber uses an equipment pick-up program to reuse and upcycle discarded equipment.

- Compost Winnipeg helps reduce overall methane emissions through commercial and residential composting services. Since 2016, the organization has diverted approximately 5 million kg of organic waste from landfills preventing about 4400 tonnes of GHG emissions.

- In collaboration with Red River Polytech's Applied Research department and New Flyer Industries, Frontiers North (Churchill, Manitoba) is using recycled batteries from NFI-built electric buses in its Tundra Buggy vehicles, extending the life of the batteries well beyond their original expected range (Supply Chain Manitoba, 2022).

Recycling and the Circular Economy

- Watson's Roofing and Siding recycles the shingles it replaces rather than disposing as waste.
- A Manitoba business implements a backhaul program using northern ice roads to bring recyclables out of remote northern communities using the same carbon footprint for transporting goods to these communities.
- Winpak's product approach is to design and supply innovate packaging that is recyclable, contains recycled content, or is compostable. For example, 40% of Winpak's rigid packaging is recyclable/recycle-ready and 40% of its converter films are recycle-ready. Winpak's packaging is designed to extend shelf life and reduce food waste.

Repurposing and the Circular Economy

- Russell-based Tinhouse Designs uses discarded historic tin ceiling décor and creates new works of wall art for homes.
- Gerdau (Selkirk, Manitoba) operates a steel mill that sources scrap metal from across Manitoba, SK, and Northwest Ontario wherever possible as a way to reduce costs and minimize shipping and transport, and associated environmental impact (Supply Chain Manitoba, 2022).
- Mother Earth Recycling (Winnipeg, Manitoba) dismantles discarded mattresses and ships the component materials to companies in Canada and US to be used as inputs and made into new products (Supply Chain Manitoba, 2022).
- BGP Environmental Group offers driveway and garage resurfacing services using recycled rubber from Manitoba sources.

Rethinking and the Circular Economy

- Steinbach-based, Milieu Market, helps reduce plastic waste through its mobile shop on wheels, providing a refill service to Manitoba communities for household cleaners, personal care products, skincare products, baby products, and more. As well, the market offers products that are made exclusively in Canada, with every effort taken to support as many local companies as possible.
- Peg City Car Co-op (Winnipeg, Manitoba) is a membership-based subscription service that offers businesses and individuals access to a vehicle on demand without the hassle and cost of ownership (Supply Chain Manitoba, 2022).
- Louisiana Pacific (Swan Valley, Manitoba) manufactures a wood siding product called Smartside that is "carbon negative", made from renewable resources (fast growing local poplar) and designed/warrantied to last 50 years (Supply Chain Manitoba, 2022).

Reducing and the Circular Economy

- Russell-based, Tinhouse Designs and Coffee Company, has reduced the use of paper, entering into

the digital world to conduct its business. In addition, the coffee shop has replaced plastic straws with compostable straws and introduced compostable take-out containers. Moreover, plastic bags have been replaced with recycled paper bags.

- Hilton Homes (Winnipeg, Manitoba) has implemented practices to reduce waste at various stages of the homebuilding process including use of I-Joists (innovation that reduces amount of wood used for structural beams), encouraging and training building crews on advanced framing techniques, and substituting less toxic paints, adhesives and other supplies where possible (Supply Chain Manitoba, 2022).

Regenerating and the Circular Economy

- Nioex Systems Inc of Swan Lake, Manitoba, developed the BIOvator® in-vessel composter designed to quickly transform organic matter into consistent quality compost. The BIOvator® is the only all-stainless steel, in-vessel composter on the market in successful operation in more than 1000 locations Worldwide.

- Tinhouse Designs and Coffee Company uses composting as part of its sustainable practices, where coffee grounds, potato peelings and eggshells are used as organic fertilizers in the garden.

- Overton Environmental (West St. Paul, Manitoba) receives potato scraps, starches, soil residue, water treatment digestate from a nearby Simplot Canada plant and processes the waste into compost which is then sold to farmers for soil regeneration (Supply Chain Manitoba, 2022).

- Compost Winnipeg, a social enterprise of the Winnipeg-based not-for-profit, Green Action Centre, provides composting services to Winnipeg businesses, organizations, and multi-family buildings.

- Winnipeg-based, Innovative NRG, helps businesses produce energy from waste using Rapid Organic Conversion (ROC) technology. ROC is designed to not only eliminate waste in the most efficient and environmentally friendly manner possible, but also to provide a profitable, renewable and clean energy source from multiple organic waste feedstocks including.

Supporting the Circular Economy

- The Circular Economy Club of Winnipeg is part of a global network of clubs collaborating to raise awareness, educate, and showcase business models fostering circularity to help move society collectively toward regenerative and sustainable business practices that reduce climate change and biodiversity loss. The club's Canada network produced a report on Canadian Business Circularity.

- Supply Chain Manitoba published a report on establishing circular economy principles in Manitoba and provides a platform to engage and inform supply chain professionals with tools and information to position Manitoba businesses and organizations for success in the rapidly evolving circular economy.

Using Nature-based Solutions

Nature-based solutions is a general term used to describe the protection, restoration, and/or management of natural or modified ecosystems to provide social, economic, or environmental benefits. Examples include green roofs, engineered wetlands for flood protection and water filtration, trees planted for wind and fire breaks and reduction of urban heat, as well as natural assets used for delivering a variety of community services including wetlands, rivers, lakes, forests, fields, coastal marshes, dunes,

and soils. These practices are also sometimes referred to as natural or green infrastructure and represent an emerging and cost-effective option for businesses taking climate action. Below are a few examples from Manitoba businesses. For more information, visit the Manitoba Chambers of Commerce Climate Action Toolkit.

Home Game · Business operations and facilities

Rossbrook House, an organization providing a safe place for children and youth living in the inner-city of Winnipeg, to belong, play, learn, partnered with the Green Action Centre on a de-paving project at its facility to create a beautiful garden and green space, aptly called Maamaa-Ahki Gizaagi-igoo (Mother Earth, We Love You).

Away Game · Business products and services

A Manitoba business designs, builds, and monitors natural wetlands for leachate filtration at waste sites, reducing GHG emissions relative to built infrastructure solutions. As well, it converts turf grass space back to prairie grass, reducing water use and attracting pollinators.

Barriers and Enablers of Climate Action

Lack of Manitoba Market Providing Carbon Offsets

- At present, there are no carbon credits from Manitoba available in the offset market. Manitoba businesses have to look mostly to international offset markets to purchase their credits.
- Local businesses in the Niverville and Steinbach area were surprised that the only carbon offset that could be purchased were related to afforestation in the Amazon, rather than a local market of credits available in Manitoba. It was felt that a very large boat was being missed in the province in relation to recognizing carbon and methane credits from local sources (i.e., from agriculture production, municipal waste, etc.).

Educational Barrier

- Course credits offered by private educational institutions aren't always eligible for government student support funding. This limits accessibility to a range of courses that support climate action.
- Several businesses noted that templates and how-to guides are needed for small businesses to take the initial small steps for climate action.
- It was commented that there is not yet a general understanding of the severity of the climate change issues by Manitoba businesses nor a clear understanding of climate change impacts on SMEs. At

the same time, it was felt by some that the complexity of climate action may be a barrier to getting started for small businesses.

Quality Control for Roofing Renovations

- Sometimes the quality of installation for asphalt shingle renovations can be poor, resulting in unnecessary replacement of lost shingles and damaged roofing. While inspections are common practice for larger construction projects, homeowners typically don't have a formal recourse with roofing contractors to ensure quality control of the completed installation. It was suggested that it would be helpful if homeowners could engage the services of a qualified independent roofing expert to inspect a completed job to ensure proper nailing and spacing of shingles prior to final payment, rather than relying on the typically complicated and unreliable warranty process to correct defects after the fact.

Infrastructure Barriers

- Entire process to bury power lines for a residential development took seven years to complete. This is a barrier to enhancing resilience to extreme weather events.

- Composting services are not readily available to households and businesses. This represents a missing piece of community infrastructure across Manitoba for reducing GHG emissions in landfills.

- Current Electric Vehicle (EV) charging infrastructure is limited in Manitoba, creating a barrier to the electric vehicle transition.

- Policies and regulations are needed to support the recycling of roofing shingles for residential and commercial renovations as well as to incentivise the right to have inspections of installation quality prior to final contract payment.

Barriers in Undertaking Assessments for Climate Risk and GHG Emissions

- Several businesses commented that they didn't know how and where to find qualified service providers for climate change-related assessments, including climate risk and GHG assessment.

- One business commented that it was difficult to obtain 1-in-100 year flood maps for their land planning project.

Just Transitions

- Many low-carbon and climate resilient solutions at the municipal level still have some barriers such that implementing them at scale would make services unaffordable for low-income residents. This points to the importance of the idea of "Just Transitions" during the transition to a climate-friendly and climate-resilient economy to ensure that no one is left behind.

Cost and Funding

- Several small businesses noted that seed funding is needed to help get started in taking climate action.

- A municipal administrator finds that the cost of doing assessments for climate risk and GHG emissions to be a barrier to their adoption.

- Municipality wanted to consider a green roof for a new building, but it would have cost upwards of $2 million for a $10 million project.

For more information

Visit the Manitoba Chambers of Commerce Climate Action Toolkit

The MCC Climate Action for Manitoba Business Initiative

Led by the Manitoba Chambers of Commerce (MCC), in collaboration with Novel Futures Corporation, the International Institute for Sustainable Development, and the Manitoba Environmental Industries Association, and with funding from the Government of Manitoba's Conservation and Climate Fund, the MCC Climate Action initiative builds awareness and capacity among Manitoba's small-and-medium sized enterprises (SMEs) in Assessing Climate Risk and Enhancing Resilience, Reducing Carbon Emissions via the Circular Economy; and Using Nature-based Solutions.

IISD International Institute for Sustainable Development

Novel Futures Creativity Adaptability Sustainability

meia Manitoba Environmental Industries Association