

2021 PSO CLIMATE CHANGE ACCOUNTABILITY REPORT



This PSO Climate Change Accountability Report for the period January 1, 2021, to December 31, 2021, summarizes our greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2021 to reduce our GHG emissions, and our plans to continue reducing emissions in 2022 and beyond. By June 2022, Selkirk College's final 2021 Climate Change Accountability Report will be posted to our website at www.selkirk.ca.

EMISSION REDUCTIONS: ACTIONS & PLANS

Stationary Sources

The Silver King Campus biomass boiler project continued throughout 2021 and will be in full operation for the 2022-2023 heating season. This installation is expected to replace nearly all previous demand for natural gas at this campus, resulting in reduced emissions and lower heating costs. Wood waste from the School of Industry & Trades Training programs at the Silver King Campus will be used as fuel, reducing the amount of waste sent to landfill.

In early 2021, Prism Engineering completed an energy audit of the Castlegar Campus, providing valuable information on this campus's energy use and future actions that can be continued to reduce emissions. This audit identified projects, one of which was incorporated into the college's five-year Capital Plan.

The Castlegar Daycare Centre received lighting upgrades and we continue to upgrade lighting across all campuses.

Mobile Sources

Selkirk College continues to consider electric vehicle options when new purchases or replacement purchases are made. Selecting an electric vehicle that effectively serves our needs will become easier as more models of electric vehicles become available. Our facilities team strives to combine trips whenever feasible to reduce emissions associated with fleet vehicle use and drives the fleet Chevy Bolt electric vehicle whenever appropriate.

In 2021, the City of Nelson installed Level 2 charging stations at both the Silver King and Tenth Street campuses, putting Selkirk College on the electric vehicle charging network map. In the coming year, two additional Level 2 charging stations



Figure 1. A biomass boiler has been installed at Silver King Campus.



Figure 2. Energy conservation continues to be a theme in outreach to our campus community.

will be installed on the Castlegar Campus as part of the Accelerate Kootenays 2.0 program.

Paper Consumption

Selkirk College has transitioned all 8.5 x 11 white paper procurement to Sugar Sheet paper, which is made from the waste fibre generated from sugar cane processing. GHG emissions from Sugar Sheet paper are found to be 29% lower than even 100% recycled content paper. This paper source is also forest-free.

Since early 2020, many new procedures and forms have been put online, reducing paper demand. Employees and students are encouraged to reduce their print jobs and instead work digitally where feasible.

PLAN TO CONTINUE REDUCING EMISSIONS IN 2022 AND BEYOND

Selkirk College will continue to work towards carbon neutrality throughout 2022.

Projects will include:

- Completing the biomass boiler project at Silver King Campus and bringing it online for the 2022-2023 heating season.
- Replacing the gas furnaces and AC condenser in the Daycare Centre at Castlegar Campus.
- Optimizing water to water heat pumps at Castlegar Campus as part of the five-year capital plan.
- Installing two Level two electric vehicle chargers on the Castlegar Campus.
- Replacing air handling units at the Nakusp Learning Centre.
- Continuing lighting upgrades at the Castlegar Campus.
- Installing a pole mount solar system for the Silver King Campus greenhouse.

RETIREMENT OF OFFSETS

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, Selkirk College (the Organization) is responsible for arranging for the retirement of the offsets obligation reported above for the 2021 calendar year, together with any adjustments reported for past calendar years (if applicable). The Organization hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy (the Ministry) ensuring that these offsets are retired on the Organization's behalf, the Organization will pay within 30 days, the associated invoice to be issued by the Ministry in an amount equal to \$25 per tonne of offsets retired on its behalf plus GST.

SELKIRK COLLEGE 2021 GHG EMISSIONS AND OFFSETS

GHG Emissions created in Calendar Year 2021

Total Emissions (tCO ₂ e)	1057.5
Total BioCO ₂	1.18
Total Offsets (tCO ₂ e)	1056

Adjustments to Offset Required GHG Emissions Reported in Prior Years

Total Offsets Adjustment (tCO ₂ e)	7
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Grand Total Offsets for the 2021 Reporting Year

Grand Total Offsets (tCO ₂ e) to be Retired for 2021 Reporting Year	1063
Offset Investment (\$25 per tCO ₂ e)	\$26,575

PUBLIC SECTOR LEADERSHIP

Climate Risk Management

Selkirk College has yet to conduct a climate risk assessment to understand the organization’s risk exposure. Climate change, however, is included within our risk registry and the college has back-up generators used to keep emergency lighting and IT infrastructure running in the case of an outage. During the heat dome and forest fires in 2021, employees were provided with information on where to check the air quality index and how to stay safe when there is wildfire smoke. Facilities staff were advised to limit exposure to smoke and take more frequent breaks during the heatwave. There was no impact to service delivery during these events.

In March 2021, Selkirk College hosted a two-day virtual climate adaptation conference, “Bridging Silos: Advancing Climate Adaptation and Low Carbon Resilience in Small Communities and Rural Regions,” that brought together over 200 participants. Drawing on expertise and experience from across the province, this two-day knowledge sharing event highlighted some of the latest innovations and capacity building insights from and for small communities and rural regions seeking to increase their climate readiness and to plan for low carbon resilience. The innovative virtual conference design provided space for networking and active participation to help build and strengthen relationships and foster peer learning.

Other Sustainability Initiatives

Selkirk College is committed to integrating sustainability into student learning, services, operations, work force development, and campus culture. We support students and employees to become informed citizens, equipped with the knowledge, skills, values and attitudes to bring about necessary global transformations.

Selkirk College was the first post-secondary institution in Canada to sign the SDG Accord, the university and colleges response to the United Nations Sustainable Development Goals (SDGs). We recognize our central and transformative



Figure 3. Selkirk College is a proud signatory of the SDG Accord and is making progress on the Global Goals.

Figure 4. By reducing our greenhouse gas emissions, we are contributing to Sustainable Development Goal 13: Climate Action.



role in achieving the SDGs, and by signing SDG Accord, have committed to deliver the goals, report on our progress and share knowledge and learning with others worldwide.

Selkirk College is also a signatory of the Global Climate Letter and a partner in the Race to Zero for universities and colleges. We have pledged to reach net zero by 2030. Since we already report on and offset all Scope 1 and Scope 2 emissions, and partial Scope 3 emissions, we are making steps to quantify remaining Scope 3 emission sources in order to effectively plan reduction strategies for these sources.

Sustainability initiatives at the college continue to gain momentum. These include recycling and organic diversion efforts, reduction of single-use plastics, supporting Fair Trade products, sourcing local food, encouraging carpooling and energy conservation campaigns. Over 90% of surveyed students said they either agreed or strongly agreed with Selkirk College’s commitment to sustainability.

Success Stories


The Silver King Campus biomass boiler project will have a significant impact on our GHG emissions. The primary goals of this project are to reduce GHGs, lower winter heating costs and provide a tangible project to assist in educational outcomes on this trades-based campus.

A biomass system uses industrial residues and waste to produce heat and/or electricity with less effect on the environment than fossil fuels. Over the decades, the Silver King Campus has relied on three natural gas-fired boilers to provide for winter heat demand in six of the seven buildings. The addition of a biomass-fired boiler will augment the existing boilers while it supplements the heat demand, reduces energy costs and reduces GHGs.

The new biomass boiler will utilize scrap wood pieces generated from both the Carpentry Program and Fine Woodworking Program, waste that is currently hauled to the landfill. Other scrap wood from Selkirk College operations will also be brought to the site. Some locally purchased wood chips will also be required to maintain operation of the boiler.

In 2021, the use of natural gas on the Silver King Campus contributed 246 tCO₂e. Once operational, direct stationary emissions from the combustion of natural gas will be nearly eliminated.

EXECUTIVE SIGN-OFF



May 27, 2022

SIGNATURE

DATE

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