



This Carbon Neutral Action Report for the period January 1st, 2017 to December 31st, 2017 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2017 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2018 and beyond. By June 30, 2018 Selkirk College's final Carbon Neutral Action Report will be posted to our website at selkirk.ca.

OVERVIEW

ACTIONS TAKEN IN 2017

Selkirk College is committed to reducing its ecological footprint and creating a culture of sustainability among all members of the campus community. During 2017, the College continued to take action towards reducing its carbon emissions with the goal of achieving carbon neutrality.

Renovations at the Silver King Campus in Nelson continued throughout this year, which included the substantial completion of the North and South Trades building renovations. These upgrades incorporated new energy efficient LED lighting, complete with occupancy control and daylight harvesting where applicable. The renovations also upgraded ventilation systems, including variable speed exhaust, heat recovery and advanced control systems. The system commissioning will continue to be addressed in order to achieve the greatest possible energy savings.

Measures identified within the energy audit of Nelson's Tenth Street Campus continued to be carried out. This included the installation of demand controlled ventilation in the Mary Hall kitchen.

Outdoor lighting on the Selkirk College Castlegar Campus was significantly upgraded. More than 100 LED luminaires were installed, along with a computerized system allowing each light to be fully programmable. This project also included the installation of four solar powered luminaires. The external lighting at the Applied Research and Innovation Centre in Castlegar was also upgraded to LED.

An energy audit was conducted for the Kootenay School of the Arts, located in Nelson. This audit has shown where changes and upgrades could increase this building's energy efficiency.

Selkirk hosted a successful Sweater Day event in early 2017. The heat on campus was turned down and students and staff were encouraged to wear a sweater to show their support and commitment to energy conservation. Actions of this event resulted in nearly a 25% reduction in energy use for that one day. The event showed that small changes can have big impacts. Sweater Day will become an annual Selkirk event.

Energy conservation procedures are being included within the College's Environmental Sustainability Policy. These procedures address heating and cooling target temperatures, as well as the use of electronics and personal appliances on campus. The College recognizes that addressing energy consumption is of utmost importance when working towards a sustainable future. Participation in the energy conservation guidelines will be strongly encouraged, as Selkirk students, staff and faculty are instrumental in achieving College energy conservation targets.



Figure 1 Selkirk students showed their support for energy conservation during Sweater Day.

OVERALL INITIATIVES WHICH TIE IN WITH GHG EMISSION REDUCTIONS

WASTE REDUCTION AND DIVERSION

Selkirk College continues to address campus waste by seeking ways to reduce consumption and increase the diversion rate.

In the fall of 2017, the Sustainability Committee and Environment Club conducted a waste audit of the Castlegar Campus cafeteria and Pit (common area). The results from the audit showed opportunities for improvements within the waste and recycling streams. In response to these results, the Environment Club provided environmental education outreach, aiming to reduce the use of disposable coffee cups and cafeteria to-go containers. The College will continue to seek ways to change consumer habits.

Selkirk is now a Call2Recycle Collection Partner. During the first 3 months of the program, approximately 30 kilograms of batteries were shipped for proper recycling.

Castlegar Campus continues to run a compost program using an onsite Earth Tub composting system. Participation in this program increased during the 2017 fall semester. Green organics bins on campus and in student housing are used to collect food scraps. The Castlegar Campus also offers a home composting drop-off program, accepting organic material from students and staff homes weekly.



Figure 2 Members of the Selkirk Environment Club and Sustainability Committee held a campus waste audit.

TRANSPORTATION

Selkirk runs a carpool program, encouraging students and staff to travel to and from campus together to reduce the number of vehicles on the road. The regional Kootenay Rideshare program is also promoted. College staff and faculty are encouraged to use video conferencing and teleconferencing whenever feasible to reduce our emissions associated with travel. Selkirk also hosts an annual Bike to School week.



Figure 3 Students and staff are encouraged to carpool to campus to assist in reducing our carbon footprint.

PLANS TO CONTINUE REDUCING EMISSIONS IN 2018 AND BEYOND

Selkirk College will continue to work towards carbon neutrality throughout 2018. In our region, the 2017 heating season was more severe than the preceding year, with nearly a 20% increase in the number of heating degree days, increasing heating energy demand for our facilities. We expect to see increased energy savings at the Silver King campus as renovations continue to be completed during 2018. The College will carry out further recommendations from the campus energy audits, and through education and outreach efforts, will strive to increase participation in campus sustainability initiatives in order to lower the College's carbon footprint.

Projects will include:

- Implementation of building control strategies to Kootenay School of the Arts Campus.
- Optimization of building heating/air handling systems for recently renovated Trades Shops at the Silver King Campus.
- Feasibility assessment for adding an electric vehicle to the College fleet.
- Improvements to campus recycling station units, signage and education.
- Incorporating lessons of sustainability into courses college-wide.

EMISSIONS AND OFFSETS SUMMARY:

Selkirk College GHG Emissions and Offsets for 2017 (tCO₂e)

GHG Emissions created in Calendar Year 2017

Total Emissions	1195
Total Offsets	1194

Adjustments to GHG Emissions Reported in Previous Years

Total Emissions	75
Total Offsets	75
Grand Total Offsets for the 2017 Reporting Year (tCO ₂ e)	1,269

REQUIREMENT OF OFFSETS

In accordance with the requirements of the Greenhouse Gas Reduction Targets 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 2017 calendar year, together with any adjustments reported for past calendar years. The Organization hereby

agrees that, in exchange for the Ministry of Environment and Climate Change Strategy 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.



April 30, 2018

SIGNATURE

DATE

Kerry Clarke

VP College Services & CFO

NAME (PLEASE PRINT)

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Part 1: CNAR Survey

1. General Information

Name: Laura Nessman

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Organization Name: Selkirk College

Sector: Post Secondary

2. Stationary Sources (eg. Buildings, Power Generators): Fuel Combustion, Electricity use, Fugitive Emissions.

During 2017, did your organization take any of the following actions to support emissions reductions from buildings? (please select all that apply)

Conducted an energy audit/study of building(s) in the organization's portfolio.; Performed energy retrofits of the organization's building(s); Built, or are building new LEED Gold or other "Green" buildings

If you selected "*Performed energy retrofits of the organization's building(s)*":

How many buildings were retrofitted?: 1

If you selected "*Built, or are building new LEED Gold or other "Green" buildings*":

How many new "Green" buildings?: 2

Did your Organization perform any retrofits during 2017? Please describe briefly:

- Continued with LED lighting upgrades in several classrooms

2a. Stationary Sources (eg. Buildings, Power Generators): Fuel Combustion, Electricity use, Fugitive Emissions.

Please briefly describe your organization's plans to continue reducing emissions from its stationary sources:

a) Over the next 1-5 years

- Implementation of building control strategies to Kootenay School of the Arts Campus
- Optimization of building heating/air handling system for recently renovated Trades shops at the Silver King Campus
- Assessment of next technologies to implement at our Castlegar campus to further reduce GHG

b) Over the following 6-10 years

- Installation of a biomass boiler at our Silver King Trades campus

3. Mobile Sources (Vehicles, Off-road/portable Equipment): Fuel Combustion:

During 2017, did your organization take any of the following actions to support emission reductions from its mobile sources? (please select all that apply)

Took steps to drive less than previous years

If you selected "*Replaced existing vehicles with more fuel efficient vehicles (gas/diesel)*":

How many vehicles?: 0

If you selected "*Replaced existing vehicles with hybrid or electric vehicles*":

How many vehicles?: 0

3a. Mobile Sources (Vehicles, Off-road/portable Equipment): Fuel Combustion:

Please briefly describe your organization's plans to continue reducing emissions from its mobile sources:

a) Over the next 1-5 years

- Feasibility assessment for adding an electric vehicle to the College fleet
- Continue to encourage staff and faculty to use video conferencing and teleconferencing whenever feasible. Upgrade IT infrastructure at our satellite campuses to enable this technology
- Continue to promote regional rideshare and carpool programs

b) Over the following 6-10 years

- Convert maintenance and School of Environment and Geomatics fleet to Electric Vehicles

4. Supplies (Paper): Indicate which actions your PSO took in 2017:

During 2017, did your organization take any of the following actions to support emissions reductions from paper supplies? (please select all the apply)

None of the above

4) Supplies (Paper): Indicate which actions your PSO took in 2017: - Other? Please describe briefly: - Have a preference to purchased paper with higher recycled content

If you selected "*Had a policy requiring the purchase of recycled content paper*":

State the required recycled content here (30%, 50%, 100%):

If you selected "*Had a policy requiring the purchase of alternate source paper (bamboo, hemp, wheat, etc)*", which type of alternate source paper did you use?

Please briefly describe your organization's plans to continue reducing emissions associated with its office paper use in future years.

5. Other Sustainability Actions

a) Business Travel

During 2017, did your organization take any of the following actions to support emissions reductions from business travel? (please select all that apply)

None of the above

b) Education/Awareness

During 2017, did your organization have any of the following programs or initiatives to support sustainability education and awareness? (please select all that apply)

A Green, Sustainability or Climate Action Team; Support for professional development on sustainability (e.g. workshops, conferences, training); Supported or provided education to staff about the science of climate change, conservation of water, energy and/or raw materials

c) Other Sustainability Actions

During 2017, did your organization have any of the following programs or initiatives to support sustainability? (please select all that apply)

A water conservation strategy which may include a plan or policy for replacing water fixtures with efficient models; An operations policy or program to facilitate the reduction and diversion of building occupant waste (e.g., composting, collection of plastics, batteries) from landfills or incineration facilities