

sustainable selkirk college



JUNE 2016

2015 Carbon Neutral Action Report – SELKIRK COLLEGE

This is the 2015 Carbon Neutral Action Report (CNAR) for Selkirk College. This report contains our 2015 emissions profile, offsets purchased, the actions we have taken in 2015 to reduce our GHG emissions and our plans to continue reducing emissions in 2016 and beyond.

By June 30, 2016, Selkirk College's final CNAR will be posted to our website at www.selkirk.ca

2015 GHG Reduction Actions:

In 2015, Selkirk College continued to work at the completion of several projects to reduce energy use and GHG emissions. These included replacement of a low efficiency boiler used for domestic hot water heating at the Castlegar gymnasium building. Smaller sized wall mounted condensing water heaters were installed along with advanced controls. Shower stations within the gymnasium were also re-fitted with low flow heads and auto shut-off valves. The estimated reduction in GHG emissions from this project is approximately 50 tCO₂e annually. At the 100 bed student residence building in Castlegar, all incandescent and CFL lighting was replaced with LED lamps resulting in a savings of 15,000 watts.

A detailed energy audit and building controls recommissioning study was completed at our Tenth Street campus. Recommendations from this study will be used as the basis for energy reduction projects for the current and future years.

A building controls recommissioning study was also completed for the Classroom Block building at our Silver King trades campus which has identified changes to our building control strategies for improved performance.

For 2015 and 2016, Selkirk College supported wind power by purchasing renewable energy credits for the electrical energy used at its Tenth Street Residence facility. The electrical energy used at this facility is 520,000 KWH.

Selkirk College has also committed to investing in the Nelson Community Solar Garden where at least 200 solar panels are currently being installed to provide solar power to the Nelson Hydro grid. Energy produced from the solar array will offset the energy bills for our Tenth Street and Silver King campuses.

2016 GHG Reduction Strategies:

We will be implementing several projects identified in our Tenth Street campus energy audit. These include the installation of additional building control points at the Patenaude building through our DDC system to reduce the amount of conditioned air escaping the buildings during unoccupied periods. A variable frequency drive and advanced control system will also be implemented in the Cooking School

kitchen at this campus to reduce energy use associated with the appliance exhaust air. The Music Theatre will also have additional controls installed as well as carbon dioxide sensors to reduce energy use.

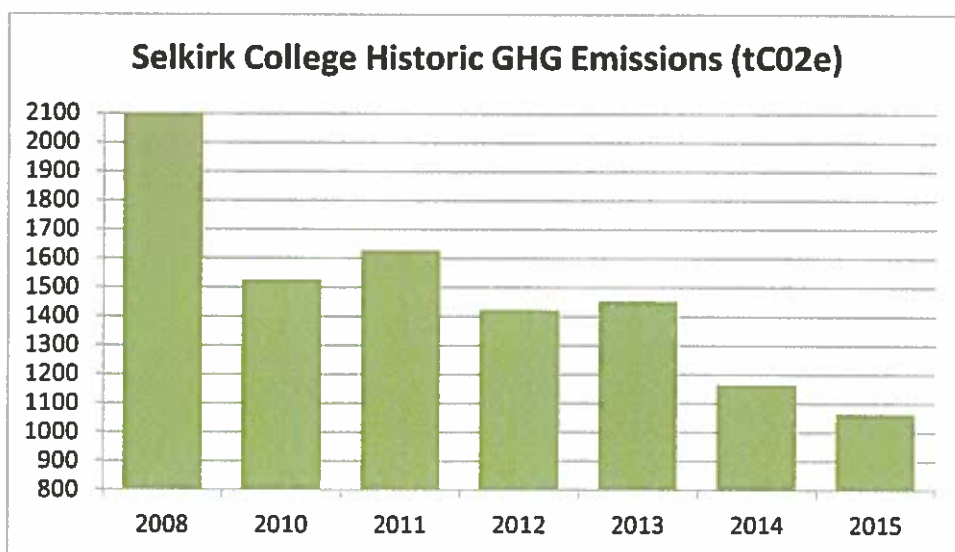
An older inefficient water heater used in the cafeteria building of the Castlegar campus will also be replaced with a high efficiency unit.

Design work is currently underway for a large capital renovation project as well as some new construction at our Silver King trades campus in Nelson. One of the goals of this project is to reduce energy use at this campus by at least 35% compared to current levels. Although the construction period of approximately 3 years will challenge our energy use at this campus with increased activity and energy use for construction and renovation, we are looking forward to completion and the realization of significantly lower GHG emissions.

GHG Reduction Performance:

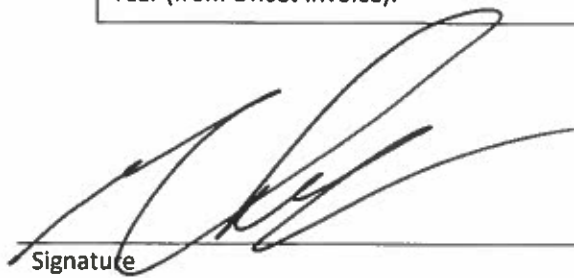
Sustainability and the reduction of our ecological footprint is part of Selkirk College's Vision statement. One of the College's strategic directions is to have state of the art facilities not only for learning, but for a reduced environmental impact. Selkirk College is committed to reducing its GHG emissions by at least 33% by 2020 compared to 2007 emission levels and is proud of the fact that we were able to meet this target several years earlier. We were also able to continue to maintain our trend to reduce our GHG emissions even though our student full time enrollment was up 12% compared to the previous year.

The GHG emissions for 2015 are half of what they were in 2008. Further reductions to our GHG emissions will continue to be a priority over the coming years.



Emissions and Offsets Summary:

Selkirk College GHG Emissions and Offsets for 2015 (TCO2E)	
GHG Emissions created in calendar year 2015 (from SMARTTool Homepage)	
Total Emissions	990
Total Emissions for Offsets	988
Adjustments to GHG Emissions Reported in Previous Years (from SMARTTool Homepage)	
Total Emissions	76
Total Emissions for Offsets	76
Credit owing from PCT at end of 2013 reporting year (if applicable – from May 15 Invoice):	
Credit Owing	0
Total Emissions for Offsets for the 2015 Reporting Year (from Offset Invoice):	1,064



Signature

2016/06/17

Date

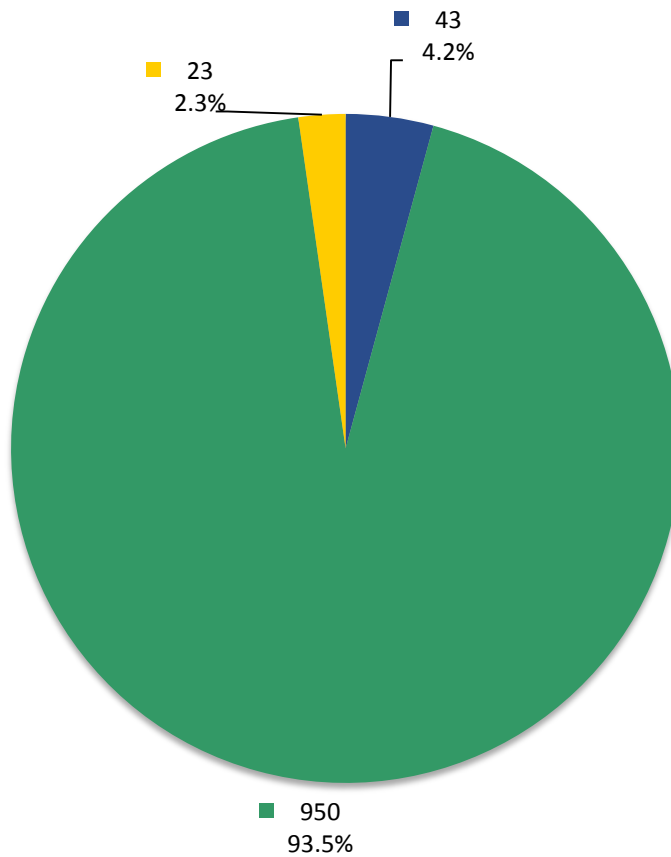
GARY LETER

Name (please print)

VP. college Services CFO

Title

**Selkirk College
Greenhouse Gas Emissions by Source
for the 2015 Calendar Year (tCO₂e*)**



Total Emissions: 990

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion (Building Heating and Generators) and Electricity
- Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2015 (Generated May 26, 2016 2:09 PM)

Total offsets required: **989**. Total offset investment: **\$24,725**. Emissions which do not require offsets: **1** **

*Tonnes of carbon dioxide equivalent (tCO₂e) is a standard unit of measure in which all types of greenhouse gases are expressed based on their global warming potential relative to carbon dioxide.

** Under the *Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act*, all emissions from the sources listed above must be reported. As outlined in the regulation, some emissions do not require offsets.

2015 Carbon Neutral Action Report Survey

Organization Name:

Selkirk College

Please select your sector:

- Post-Secondary Institution

1) Stationary Sources (Buildings, Power Generators, Ext. Lighting) Fuel Combustion, Electricity use, Fugitive Emissions:

Please indicate which actions your PSO took in 2015:

Have developed an overall strategy/plan to reduce energy use in your organization's buildings inventory:

Yes

If Yes, please describe:

A low efficiency hot water boiler used in the Castlegar gymnasium was replaced with a high efficiency system including low flow shower heads and auto shut-off valves. Lighting system upgrades from incandescent and CFL lamps to LED also continued. All low efficiency boiler systems will be prioritized for replacement in the coming years and all lighting systems will be upgraded to LED or similar high efficiency technology.

Undertook evaluations of building energy use:

Yes

Performed energy retrofits on existing buildings:

Yes

Built or are building new LEED Gold or other "Green" buildings:

Yes

Please list any other actions, programs or initiatives that your organization has introduced that support emissions reductions from buildings:

Invested in renewable wind power for one of our Residence buildings. Have invested in a Community Solar Garden project with commitment to purchase solar energy produced from 10 panels in a 200 panel solar array being constructed by our local power

2) Mobile Sources (Fleet, Off-road/Portable Equipment) Fuel Combustion:

Indicate which actions your PSO took in 2015:

Have put in place an operations policy/program to support systematic reductions in fleet related emissions:

(e.g., program to convert fleet to renewable fuels)

No

If Yes, please describe:

(No response)

Replaced existing vehicles with more fuel efficient vehicles (gas/diesel):

Yes

Replaced existing vehicles with hybrid or electric vehicles:

No

Took steps to drive less than previous years:

Yes

Please list any other actions, programs or initiatives that your organization has introduced that support emissions reductions from fleet combustion:

Carpooling preferred parking has been initiated at the Castlegar campus. Idle free zones have been also been established at our campuses.

3) Supplies (Paper):

Indicate which actions your PSO took in 2015:

Have put in place an operations policy/program to facilitate a systematic reduction in paper-related emissions:

(e.g., policy to purchase 100% Recycled Content; default to double-sided printing)

Yes

If yes, please describe:

Completed in a previous year.

Have put in place an operations policy/program to facilitate behavioural changes from paper use:

(e.g. awareness campaign to reduce paper use):

No

If yes, please describe:

(No response)

Used only 100% recycled paper:

Yes

Used some recycled paper:

Yes

Used alternate source paper:

(e.g., bamboo, hemp, wheat etc.)

No

Please list any other actions, programs or initiatives that your organization has introduced that support emissions reductions from paper supplies:

(No response)

4) Other Sustainability Actions:

Please note that this section is optional

Business Travel

Created a low-carbon travel policy or travel reduction goal:

(low-carbon = lowest emission of greenhouse gas per kilometer per passenger)

No

Encouraged alternative travel for business:

(e.g. bicycles, public transit, walking)

Yes

Encouraged or allow telework/working from home:

Yes

Other:

(No response)

Education Awareness

Have a Green/Sustainability/Climate Action Team:

Yes

Supported green professional development:

(e.g. workshops, conferences, training)

Yes

Supported or provided education to staff about the science of climate change, conservation of water, energy and/or raw materials:

No

Other:

(No response)

Adaptation Planning for Climate Risks

Have assessed whether increased frequency of extreme weather events and/or long term changes in climate will affect your organization's infrastructure, its employees and/or its clients:

No

Have incorporated these anticipated changes in climate into your organization's planning and decision making:

No

Other:

(No response)

Other Sustainability Actions

Established a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models:

Yes

Have put in place an operations policy/program to facilitate the reduction and diversion of building occupant waste stream from landfills or incineration facilities:

(e.g., composting, collection of plastics, batteries)

Yes

Established green standards for goods that are replaced infrequently and/or may require capital funds to purchase:

(e.g., office furniture, carpeting, etc.)

No

Incorporated lifecycle costing into new construction or renovations:

No

Please list any other sustainability actions your organization has taken not listed above:

(No response)