

Carbon Neutral Action Report – SELKIRK COLLEGE

This is the 2013 Carbon Neutral Action Report (CNAR) for Selkirk College. This report contains our 2013 emissions profile, offsets purchased, the actions we have taken in 2013 to reduce our GHG emissions and our plans to continue reducing emissions in 2014 and beyond.

By June 30, 2014, Selkirk College’s final CNAR will be posted to our website at www.selkirk.ca

In 2013, Selkirk College upgraded the boiler plants at two of its facilities. The main Castlegar campus 40 year old heating plant was upgraded to a hybrid system consisting of two high efficiency natural gas boilers and two heat pumps. The heat pumps provide additional space heating by extracting heat from an aquifer. Variable speed drives were also installed on heating zone circulation pumps to reduce pumping electrical energy use. Initial natural gas savings are conservatively estimated at 20%. The boiler at our Mary Hall facility in Nelson was also upgraded with two smaller, high efficiency condensing boilers to replace an older boiler operating at less than 80% efficiency. Large hot water heaters were also replaced with new, efficient units.

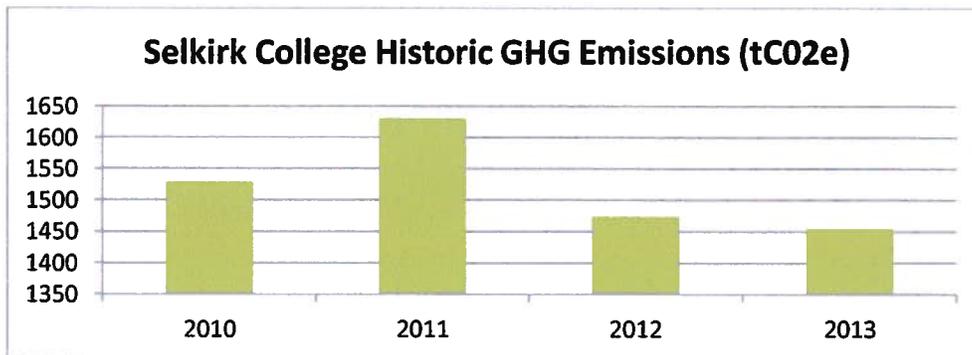
Numerous lighting upgrades and retrofits were also completed. Exterior building lights were upgraded to LED as well as some interior lighting. Approximately 100 T-12 florescent light fixtures were replaced with T-8 or T-5 style fixtures.

We will be continuing with LED lighting upgrades in the coming year.

Building controls to allow for improved temperature control and reduced energy use through nighttime setbacks were installed at our Mary Hall facility. Building controls were optimized in general at our Castlegar campus and this will be a focal point for us for all our facilities in 2014 and 2015.

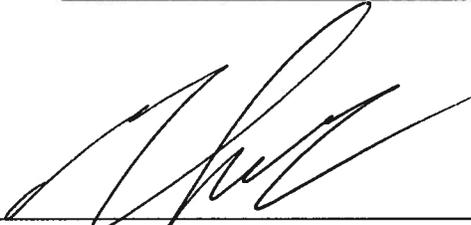
We also plan to complete detailed energy audits of our two larger campuses in 2014. The information will allow us to identify and prioritize which areas to target to maximize GHG reduction.

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.



Emissions and Offsets Summary:

Selkirk College GHG Emissions and Offsets for 2013 (TCO2E)	
GHG Emissions created in calendar year 2013 (from SMARTTool Homepage)	
Total Emissions	1,454
Total Emissions for Offsets	1,453
Adjustments to GHG Emissions Reported in Previous Years (from SMARTTool Homepage)	
Total Emissions	49
Total Emissions for Offsets	49
Credit owing from PCT at end of 2012 reporting year (if applicable – from May 15 Invoice):	
Credit Owing	0
Total Emissions for Offsets for the 2013 Reporting Year (from Offset Invoice):	1,502



Signature

2014/05/30

Date

GARY LEIER

Name (please print)

Acting V.P. Administration.

Title

2013 Carbon Neutral Action Report (CNAR) - Part 2 ACTIONS

Created Tuesday, May 27, 2014

Updated Thursday, May 29, 2014

<https://fluidsurveys.com/surveys/cas-z/2013-cnar-form-bps-actions/a9b60cbafa97667dce6659e2a132c41b/>

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Please complete the following sections of the 2013 Carbon Neutral Action Report form. Save your work frequently to prevent it from being lost. You can also save a copy for your own use as either a WORD or PDF file using the buttons at the bottom of each page.

This is Part 2 of the Carbon Neutral Action Report form. This section reports on actions taken to reduce emissions during the 2013 calendar year. This information will be included in your final Carbon Neutral Action Report posted on the Ministry of Environment website.

When the form is complete press the submit button on the last page to automatically submit the information to the Climate Action Secretariat (CAS). Do not press submit before you are ready – this may result in a loss of work.

In addition to completing this survey (Part 1 2), you are required to submit your completed Overview (Executive Summary) and Self-Certification Checklist. The 2013 Overview template was included in the email sent and can also be found on the LiveSmart leaders Community.

Please ensure you meet the following reporting deadlines:

A DRAFT 2013 CNAR is due to CAS by March 31, 2014. The draft is comprised of the Overview ONLY (no executive sign-off required).

The FINAL 2013 CNAR is due to CAS by May 30, 2014. The final 2013 CNAR includes Part 1 Part 2 survey form and Overview.

The Self-Certification Checklist is due to CAS by May 15, 2014.

For more information about the Carbon Neutral Government process, please refer to *Becoming Carbon Neutral 2013*, or should you have any questions please contact climateactionsecretariat@gov.bc.ca.

Organization Name

Selkirk College

Actions Taken to Reduce Emissions

1) Stationary Fuel Combustion, Electricity (Buildings):

Indicate which actions were taken in 2013:

Performed energy retrofits on existing buildings

Yes

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

No

Undertook an evaluation of overall building energy use.

No

Please list any other actions taken to reduce emissions from Buildings:

Boilers used for space heating were replaced at the main Castlegar campus and at the Mary Hall facility in Nelson with energy efficient, condensing units. Heat pumps were also installed in conjunction with the boiler plant at Castlegar to supplement the heat requirement by removing heat from the College's water supply (aquifer). Water heaters used for the Cooking Program and Gymnasium showers at Mary Hall were also replaced with energy efficient units. Building controls were also installed at the Mary Hall facility.

2) Mobile Fleet Combustion (Fleet and other vehicles):

Indicate which actions were taken in 2013:

Do you have a fleet?

Yes

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

No

Replaced existing vehicles with hybrid or electric vehicles

No

Reduced the overall number of fleet vehicles

No

Took steps to drive less than last year

Yes

Please list any other actions taken to reduce emission from fleet:

(No response)

3) Supplies (Paper):

Indicate which actions were taken in 2013:

Used less paper than previous year

Yes

Used only 100% recycled paper

No

Used some recycled paper

Yes

Used alternate source paper (Bamboo, hemp, etc.)

No

Please list any other actions taken to reduce emissions from paper use:

Monitoring software was installed on print devices to measure and inform users of their consumption of power, paper and carbon footprint for each print job submitted. Multifunction devices were converted to default to "scan to email" and "print to pdf" to reduce

the number of printed sheets produced.

Actions Taken to Reduce Emissions - continued

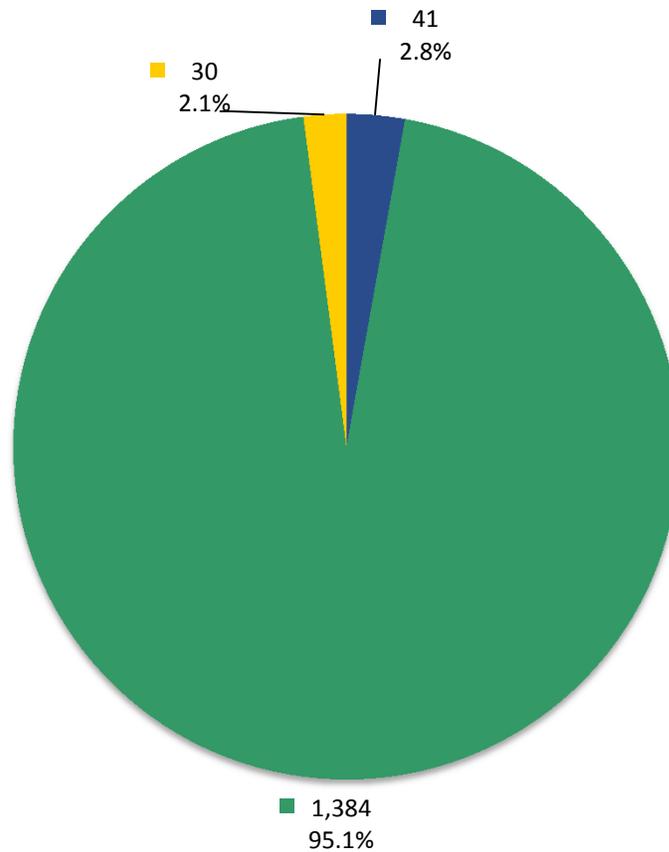
Explain how you plan to continue minimizing emissions in 2014 and future years:

Detailed energy audits are planned for two of the larger campuses in 2014. The results of these audits will allow us to identify and prioritize which areas to target to maximize GHG reductions. We also plan to optimize and enhance existing building controls in our facilities to reduce energy use. Lighting upgrades will continue with the installation of LED lighting wherever possible.

If you wish to list any other "sustainability actions" outside of buildings, fleet, paper and travel check "yes". This reporting is optional.

No

**Selkirk College
Greenhouse Gas Emissions by Source
for the 2013 Calendar Year (tCO₂e*)**



Total Emissions: 1,454

- 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 2013 (Generated May 21, 2014 3:00 PM)

Total offsets required: **1,453**. Total offset investment: **\$36,325**. 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.