



2013 Carbon Neutral Action Report

Northwest Community College



Executive Summary

Northwest Community College is pleased to submit its 2013 Carbon Neutral Action Plan. This year's 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. By June 30th Northwest Community College's final CNAR will be posted to our website at www.nwcc.bc.ca.

Our commitment to sustainability is reflected in NWCC's Key Values and Operating Principles as stated in the institution's 2012-2017 Strategic Plan:

Sustainability

We conduct our business in an environmentally responsible manner and include sound resource practices such as waste reduction, recycling and energy conservation.

NWCC's "Sustainability Taskforce," became a member of the Association for the Advancement of Sustainability in Higher Education (AASHE) to further campus efforts toward sustainability initiatives. AASHE provides specialized resources, professional development and peer support to assist institutions in meeting their sustainability goals. With this membership the taskforce has access to the Sustainability Tracking, Assessment & Rating System (STARS). This system will assist the group in measuring the institutions progress relating to sustainability as well as offer useful resources for setting and attaining its sustainability goals. Plans for 2014 include reviewing and submitting institution data through STARS and acquiring NWCC's STARS rating.



In June 2013, NWCC became a member of Green Marine, the sustainability initiative that establishes performance benchmarks for an environmentally safe marine industry in Canada and the US. NWCC is the first and only education institution on the west coast of North America to become a Green Marine member.

Through the Green Marine Environmental Program, companies benchmark their environmental performance on priority issues including greenhouse gas emissions, cargo residues, and community impacts. NWCC will support Green Marine by showing environmental leadership in post-secondary education and helping to set high standards of excellence for marine and coastal education and training.

The College is pleased to now have an Evr-Green Dual Port Level 2 Electric Charging Station at the Terrace Campus. This charging station is available to the college community and members of the public. It is one of only three electric vehicle charging stations in the Terrace area. In addition to the charging station, NWCC added its first hybrid electric car to its fleet this year.

New boiler controls were installed on two of our main boilers which will provide increased combustion efficiency. Further to this, the institution has applied for funding to replace our Terrace Campus boilers in an effort to optimize our energy efficiency. We have also submitted a proposal to secure funding to replace all exterior parking lot lighting to LED lighting. This upgrade has the potential to provide us with approximately 9000 kWh energy savings per year, which is a 50% reduction from our current energy consumption.

The College will continue to demonstrate its commitment as a post-secondary institution to reduce greenhouse gas emissions, while engaging all members of the college community, by supporting the many initiatives that contribute to sustainability and the reduction of our carbon footprint.

Cathay Sousa
Vice President, Finance & Administration



2013 Greenhouse Gas Emissions

The total GHG emissions for Northwest Community College are 1502 tCO₂e for the 2013 calendar year. A breakdown of the 2012 and 2013 emissions are as follows:

Reporting Category	2012 tCO ₂ e	2013 tCO ₂ e	Percent Change
Building Emissions	1484	1204	-23%
Mobile Combustion/Fleet	242	271	+10%
Paper Supplies	24	27	+11%
Total	1750	1502	-16%

NWCC is pleased to report that our overall emissions have decreased by 16% over last year's totals. This is the first year of reporting that NWCC has seen an overall decrease in greenhouse gas emissions. This decrease is a result of lower overall energy consumption of our buildings college-wide. Although internal efforts have been made to minimize travel across the institution (ie. carpooling, web/video- conferencing), we have again seen an increase in our Mobile Combustion/Fleet emissions. The greatest contributing factor to this rise is the increased offerings of NWCC's Heavy Equipment Operator Training and Professional Truck Driver Training Programs.

Offsets Applied to Become Carbon Neutral 2013

Northwest Community College's 2013 offsets total 1502 tCO₂e. However, under the *Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act*, there were 16 tCO₂e of emissions that were reported but do not require offsets. Therefore, the total offsets required to become Carbon Neutral for 2013 are 1486 tCO₂e.

Changes to Greenhouse Gas Emissions Pre-2013

There were an additional 26 tonnes of CO₂e that were not captured in the 2012 reporting period due to utility billing cycles. The adjustment is reflected in the following table.

Year	Offsets Required	Offsets Purchased	*Adjustment
2012	1728	1702	+26

*Adjustment to be applied to NWCC's 2013 emissions offset purchase.

Total Emissions for Offsets for the 2013 Reporting Year

NWCC's total emissions for offsets for 2013 are 1512 tCO₂e (2013 emissions of 1486 tCO₂e plus the 2012 adjustment of 26 tCO₂e).

Actions taken to reduce Greenhouse Gas Emissions in 2013:

- Installation of a Leviton Evr-Green Dual Port Level 2 charging station for electric vehicle charging at the Terrace campus. The dual output station provides 7.2 kW to each of the two charging ports and is one of only 3 charging stations in the Terrace area.
- Addition of 2012 Toyota Prius Hybrid Electric Vehicle to the NWCC fleet.
- DDC upgrades completed at each campus.
- Installation of energy efficient FARC boiler controls at the Terrace Campus.
- Implementation of Virtual Servers which reduces the number of physical servers thus decreasing electrical load.
- Network switch upgrades to energy efficient switches.
- Desktop refreshes to remove older less energy efficient computers.
- Upgrades performed in order to improve web-based video-conferencing for meetings to reduce travel.
- Facilities department use of 'tricycle' for inter-campus transportation.
- Payroll department issues 94% of employee payroll via direct deposit (6% print cheque distribution).
- Increased utilization of cafeteria food composter by NWCC Food Services programs.
- Sustainability Taskforce became a member of the Association for the Advancement of Sustainability in Higher Education (AASHE).
- NWCC became a member of Green Marine which will assist us in benchmarking our marine and coastal education training.

Plans to Continue Reducing Greenhouse Gas Emissions in 2014:

- Completion of BCHydro LiveSmart Energy Assessment and implementation of recommendations to increase energy savings.
- Replacement of the two boilers at our Terrace campus with new high efficiency boilers.
- Upgrade of the institution's parking lot lights to LED lighting.
- Replacement of all interior fluorescent tube lighting with high efficiency lighting.
- Continued upgrades of DDC software to ensure optimal performance of our HVAC systems.
- Replace older fleet vehicles with more fuel efficient and/or electric vehicles.
- Continue to encourage information sharing through shared network access and college portal.
- Transfer of paper based departmental forms to electronic forms (ie. Expense Claims, Travel Requests).
- Ensure our Marine and Coastal Studies program planning meet appropriate benchmarks through our involvement in the Green Marine Environmental program.
- Planning and implementation of sustainability initiatives across the institution using the Sustainability Tracking, Assessment and Rating System (STARS).

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

Created Wednesday, April 16, 2014

Updated Wednesday, May 07, 2014

<https://fluidsurveys.com/surveys/cas-z/2013-cnar-form-bps-actions/8e0c48d9347668cff950e287a44a036/>

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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

Northwest Community 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:

FARC Boiler Control Replacements and DDC upgrades for HVAC systems college-wide.

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)

Yes

Replaced existing vehicles with hybrid or electric vehicles

Yes

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:

IT upgrades performed to encourage web-based video-conferencing for meetings and reduce employee travel. If travel is necessary, carpooling guidelines must be followed.

3) Supplies (Paper):

Indicate which actions were taken in 2013:

Used less paper than previous year

No

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:

Continue to replace old copiers, fax machines and printers to multi-function machines that are default set to double-sided print. Continue to expand our electronic filing system so that documents can be accessed by employees via shared network or portal (ie. Contracts, Policies, Quotes, Form Templates) thus eliminating the need for printing and filing hard copies.

Actions Taken to Reduce Emissions - continued

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

NWCC's plans for 2014 and future years is to continue with lighting retrofits with an ultimate goal of full replacement of all interior and exterior lighting in the coming years. The institution will also continue with DDC upgrades to further support our HVAC systems. The replacement of two main boilers at our Terrace Campus is also part of our planning for 2014.

NWCC plans to take part in the BC Hydro Energy Assessment. Our goal is to have the results of the assessment in early 2014 in order to implement many of the recommendations within the year.

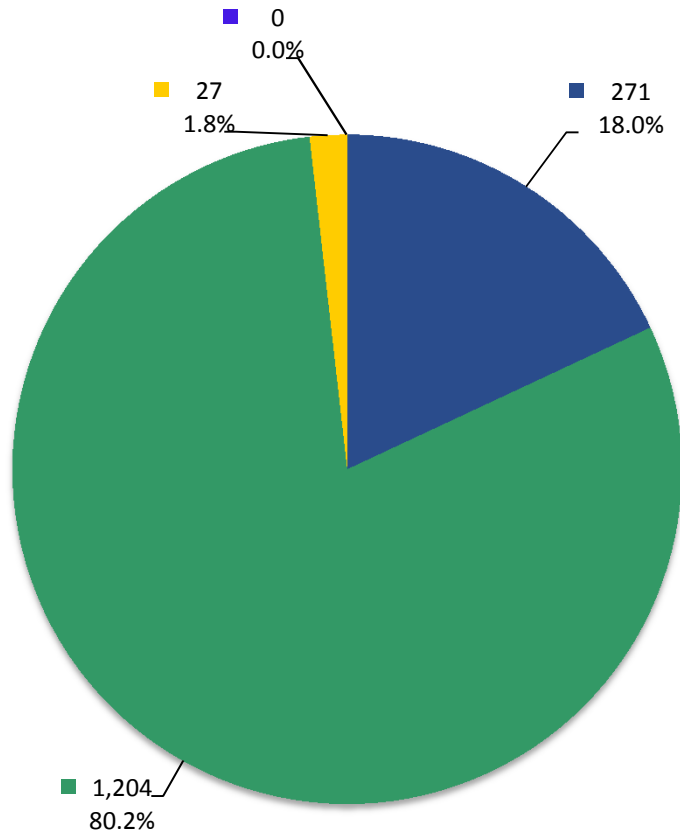
Northwest Community College plans to continue encouraging the use of web-based video-conferencing and teleconferencing options for meetings in order to reduce overall travel.

The college will continue to replace older fleet with more fuel efficient and/or electric vehicles.

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

No

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



Total Emissions: 1,502

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

Offsets Applied to Become Carbon Neutral in 2013 (Generated May 21, 2014 2:43 PM)

Total offsets required: **1,486**. Total offset investment: **\$37,150**. Emissions which do not require offsets: **16** **

*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.