

# 2015 Carbon Neutral Action Report

Northwest Community College



## Executive Summary

Northwest Community College is pleased to submit its 2015 Carbon Neutral Action Plan. This Carbon Neutral Action Report for the period January 1<sup>st</sup> to December 31<sup>st</sup>, 2015 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2015 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2016 and beyond.

By June 30, 2016, Northwest Community College's final Carbon Neutral Action Report will be posted to our website at [www.nwcc.bc.ca](http://www.nwcc.bc.ca).

A key area of focus for Northwest Community College, as per the Strategic Plan for 2015-17, is to support student-centered learning. This focus is providing some exciting new initiatives for expanded use of current space to provide a better learning environments for our students as well as environmental and energy upgrades as these spaces are re-developed.

Implementation of Vidyo, a web based video conferencing application has expanded our ability to offer more flexibility with our course offerings. The extended benefit of this implementation has been the increased ability of faculty and staff to use the application to host meetings and training workshops, therefore reducing the need for regional travel.

NWCC continues to realize significant savings from the replacement of the Terrace campus boiler and heating upgrade that was completed in 2015. The domestic hot water system was de-coupled from the main boilers during this project, which now allows NWCC to completely shut down its heating system in the summer months. It is projected that we will reduce our annual GHG emissions by over 200 tons of CO<sub>2</sub>e.

Project completion of the replacement of a 50 year old a switchgear and transformers with energy efficient dry transformers in our main Terrace Campus building will result in significantly reduced GHG emissions over the coming years.

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.



## 2015 Greenhouse Gas Emissions

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Northwest Community College's GHG Emissions and Offset for 2015 (tCO2E)	
<b>GHG Emissions created in Calendar Year</b>	
Total Emissions (tCO2e)	1462
Total Offsets (tCO2e)	1450
<b>Adjustments to GHG Emissions Reported in Prior Years</b>	
Total Emissions (tCO2e)	2
Total Offsets (tCO2e)	2
<b>Grand Total Offsets for the 2015 Reporting Year</b>	
Grand Total Offsets (tCO2e)	1452

## Changes to Greenhouse Gas Emissions by Category Pre-2015

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Reporting Category	2012 tCO2e	2013 tCO2e	2014 tCO2e	2015 tCO2e
Building Emissions	1484	1204	1237	1209
Mobile Combustion /Fleet	242	271	217	230
Paper Supplies	24	27	21	23
Total	1750	1502	1475	1462

NWCC is pleased to report that our overall emissions have continued to decrease over the past several years. These decreases are a result of lower overall energy consumption of our buildings college-wide. Although internal efforts have been made to minimize travel across the institution (i.e. 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.

### Actions taken to reduce Greenhouse Gas Emissions in 2015:

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- Upgrading of insulation on 5 of our 50 year old buildings.
- Completion of installation of 2, 5 million Btu boilers at the Terrace Campus.
- Replacement of 50 year old switchgear and transformers at the Terrace Campus.
- Network switch upgrades to energy efficient switches.
- Upgrades of institution's interior lights to LED lighting.
- DDC upgrades completed at each campus.
- 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.
- Increased utilization of cafeteria food composter by NWCC Food Services programs.

### Plans to Continue Reducing Greenhouse Gas Emissions in 2016:

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- Feasibility study for the replacement of the boilers at our Prince Rupert campus with new high efficiency boilers.
- Continued upgrade of the institution's interior lights to LED lighting.
- Continued upgrades of DDC software to ensure optimal performance of our HVAC systems.
- Software training for facilities staff to further utilize energy efficiencies of DDC system.
- Replacement of main air handlers with high efficiency coils and variable speed motors.
- Replace older fleet vehicles with more fuel efficient and/or electric vehicles.
- Continue to encourage information sharing through shared network access and video conference applications.
- Transfer of paper based registrar and admissions forms to electronic forms (i.e. Acceptance letters, transfer credit requests).

**Retirement of Offsets:**

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In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, Northwest Community College is responsible for arranging for the retirement of the offsets obligation reported above for the 2015 calendar year, together with any adjustments reported for past calendar years. The Organization hereby agrees that in exchange for the Ministry of Environment ensuring that these offsets are retired on the Organizations behalf, the Organization will pay 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.

**Executive Sign-off:**

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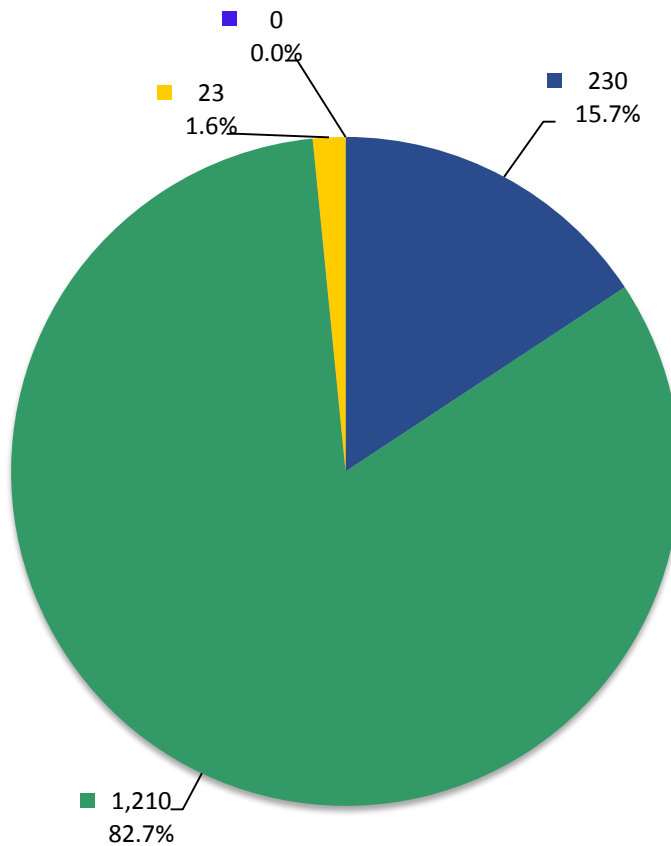
May 30, 2016

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**Laurel Campbell,**  
**Vice-President, Corporate Services**

Date

## Northwest Community College Greenhouse Gas Emissions by Source for the 2015 Calendar Year (tCO<sub>2</sub>e\*)



**Total Emissions: 1,463**

- 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 2015 (Generated May 25, 2016 10:55 AM)

Total offsets required: **1,451**. Total offset investment: **\$36,275**. Emissions which do not require offsets: **12** \*\*

\*Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) 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:

*Northwest Community 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:

*No*

If Yes, please describe:

*(No response)*

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:

*No*

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

*Conversion to LED lighting across the College is ongoing and expected to be completed in 2016*

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):

No

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:

*Increased video conferencing with updated Vidyo conferencing system.*

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:

*(No response)*



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:

*No*

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)

No

Encouraged or allow telework/working from home:

No

Other:

(No response)

Education Awareness

Have a Green/Sustainability/Climate Action Team:

No

Supported green professional development:

(e.g. workshops, conferences, training)

No

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:

*No*

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:

*Yes*

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

*(No response)*