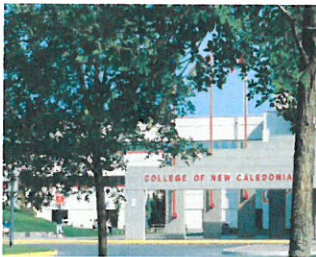


College of New Caledonia



Prince George, Burns Lake, Fort St. James, Mackenzie, Quesnel, Vanderhoof



CNC Main Campus



Prince George Technical Education Centre



CNC Quesnel Campus

College of New Caledonia

2016 Carbon Neutral Action Report

Declaration statement: This Carbon Neutral Action Report for the period January 1st, 2016 to December 31st, 2016 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2016 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2017 and beyond.

Executive Summary

The College of New Caledonia continues to actively pursue all options available to reduce its overall energy consumption, reduce its overall carbon footprint, and promote green initiatives wherever possible. Highlights for the 2016 year saw phase 1 of our upgrade to our Direct Digital Control system to our building completed at the PG Main Campus. This project also included the installation of Intelligent Valving on our Hot and Cold water Hydronic systems to enhance the efficiency of the College's Air Handling systems. The addition of the Intelligent Valving resulted in a reduction of load to our boiler and our chilled water systems. An automated building energy management component has been incorporated into this project that will assist us in further identifying opportunities to reduce energy consumption and emissions.

Moving forward into the 2017 year, The College of New Caledonia will move forward with Phase 2 of the Direct Digital Controls project. This will include the installation of this new controls and building management technology at our outlying campus facilities in Quesnel and Vanderhoof.

The College looks forward with anticipation to the ongoing savings we will see from the completion of these initiatives, and will continue to actively explore all avenues available to further minimize our carbon footprint



College of New Caledonia GHG Emissions and Offset for 2016 (tCO ₂ e)	
GHG Emissions created in Calendar Year 2016	
Total Emissions (tCO ₂ e)	2583.00
Total Offsets (tCO ₂ e)	2581.00
Adjustments to GHG Emissions Reported in Prior Years :	
Total Emissions (tCO ₂ e)	0
Total Offsets (tCO ₂ e)	0
Grand Total Offsets for the 2016 Reporting Year	
Grand Total Offsets (tCO ₂ e)	2581.00



The 2016 controls upgrade project was very comprehensive, and as additional efficiency opportunities presented themselves during the project, such as the incorporation of Intelligent Valving for the Hydronic loops, we added them in. The College also incorporated heating and cooling shut off switching to our large shop spaces in the Trades Centres that would disable cooling and heating to the spaces if an overhead door was opened.

2016 also marked the year we tendered, and began awarding contracts to begin our Substantial Mechanical Upgrade projects at the College. The College will begin replacing several of its large mechanical units that are now at, or beyond their useful life. We at the College of New Caledonia look forward with anticipation to the long term benefits of the projects that were undertaken.



Upcoming Strategies for 2017



Continue upgrading the Direct Digital Control systems in our outlying campus facilities.



Implement phase one of a large scale mechanical upgrade. This will include retrofitting our Air Handling equipment with new Fan Wall technology, as well as replacing the Heating and Cooling coils that have reached the end of their useful life.



The College of New Caledonia will begin its exterior lighting upgrade project. All exterior lighting including parking lots will be upgraded to LED technology.

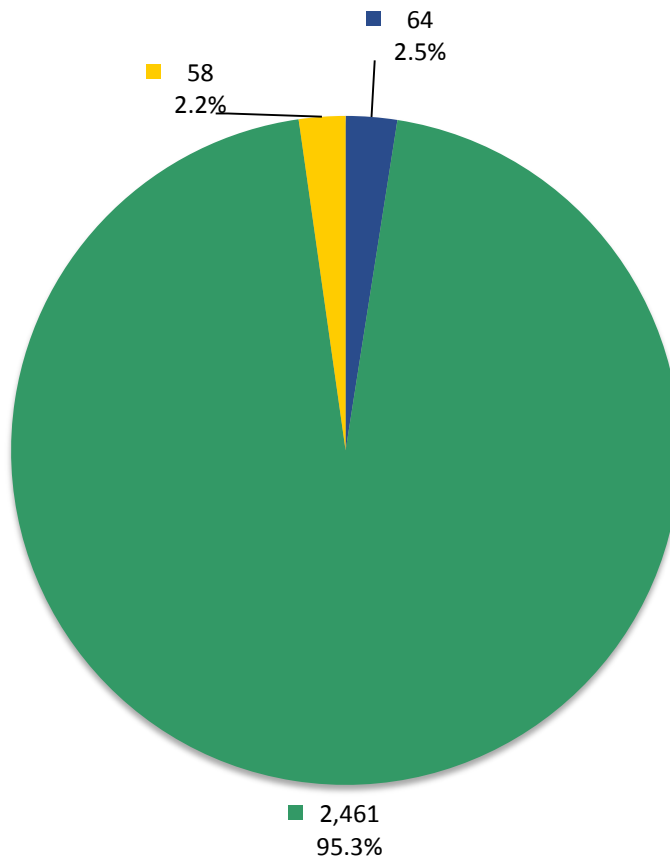
Through our Charter of Expectations and Commitments, the College of New Caledonia clearly outlines in its Priorities & Goals that the College will *"Demonstrate environmental stewardship in the management and development of our facilities, programs and services"*. This includes energy conservation and greenhouse gas emission reductions.

A handwritten signature in black ink, consisting of a stylized 'H' and 'R' followed by a horizontal line.

Henry Reiser, President

8/June/2017
Date

**College of New Caledonia
Greenhouse Gas Emissions by Source
for the 2016 Calendar Year (tCO₂e*)**



Total Emissions: 2,583

- 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 2016 (Generated May 15, 2017 4:27 PM)

Total offsets required: **2,581**. Total offset investment: **\$64,525**. Emissions which do not require offsets: **2** **

*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.

2016 Carbon Neutral Action Report Survey

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Part One (external)

Contact Name(s):

Bob Bigelow

Organization Name:

College of New Caledonia

Please select your sector:

- Post-Secondary Institution

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

During 2016, did your organization take any of the following actions to support emissions reductions from buildings?

Select all that apply

- Performed energy retrofits of the organization's buildings.: 3

Briefly describe your organization's plans to continue reducing emissions from its stationary sources in future years.

The College of New Caledonia remains committed to reducing emissions from its stationary buildings. Current plans are underway to complete upgrades of all Building Management Control systems within all of our buildings.

During 2016, did your organization participate in utility-sponsored energy demand management program(s) (e.g. BC Hydro's Energy Management (Manager))?

No

If yes, please describe briefly:

(No response)

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

During 2016, did your organization take any of the following actions to support emission reductions from its mobile sources?

Select all that apply

- Other actions? Please describe briefly.: full implementation of a car pooling strategy for all fleet vehicle use between campuses.
-

Briefly describe your organization's plans to continue reducing emissions from its mobile sources in future years.

As fleet vehicles need to be replaced, emissions will remain to be a primary factor in selection.

3) Supplies (Paper):

During 2016, did your organization take any of the following actions to support emissions reductions from paper supplies?

Select all that apply

-
- Other actions? Please describe briefly.: All printers and copiers in the organization have been set to default on 2 sided printing, and all communications are in electronic format.
-

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

Develop policy requiring paper supplies to contain the highest recycled content possible for the application.

4) Other Sustainability Actions:

Business Travel:

During 2016, did your organization take any of the following actions to support emissions reductions from business travel?

Select all that apply

(No response)

Education Awareness:

During 2016, did your organization have any of the following programs or initiatives to support sustainability education and awareness?

Select all that apply

(No response)

Other Sustainability Actions:

During 2016, did your organization have any of the following programs or initiatives to support sustainability?

Select all that apply

(No response)