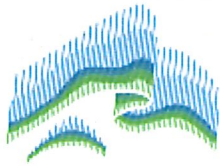


2017 Carbon Neutral Action Report



Northern Lights College
BC's Energy College

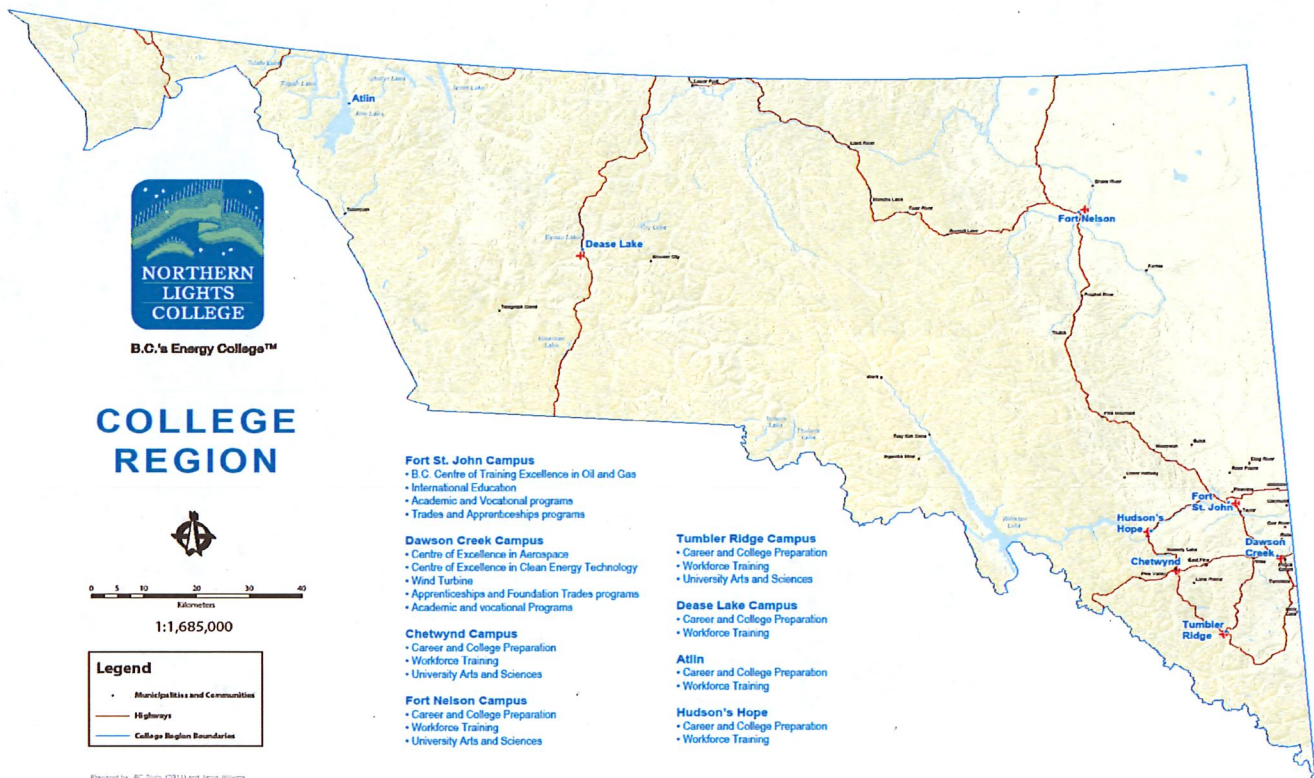


2017 Carbon Neutral Action Report

This Carbon Neutral Action Report for the period January 1st to December 31st, 2017 summarizes our emissions profile, the amount of offsets purchased to reach net zero emissions, the actions we have taking in 2017 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2018 and beyond.

Overview/Executive Summary

Northern Lights College continues with our commitment towards carbon neutrality. We are continuing to focus on building improvements with energy audits and upgrades.



Key Actions Taken in 2017 to Reduce Emissions:

Buildings

- The outside of our Gym was upgraded with new windows and insulated siding
- Indoor lighting is continuously being retro fitted with LED in all areas of the College and it's Campus's (will continue throughout 2018 and beyond)
- Continue to replace faucet fixtures with more energy efficient models
- Continued to upgrade inefficient doors and windows
- Continued to clean venting ducts to improve efficient airflow in buildings

Fleet

- We have upgraded most fleet vehicles to more efficient ones, to reduce emissions

Other Items

- Northern Lights College continues to use recycled copy paper and when not available uses "FSC Certified" paper
- Northern Lights College is seeking ways to reduce the use of paper by copying 2 sided, and making applicable resources "paperless"
- Continued to install blinds, to reduce heat loss and help rooms stay cooler in the summer, thus reducing the use of air conditioners
- Our Janitorial Department, is using more environmentally friendly cleaning products
- Sourced cleaner burning pellets for our Biomass Heating system

Carbon Neutrality Linked to NLC's Mandate

We continue to practice and promote principles that protect and sustain our natural environment, for Students, Programing, People and Cultures.

Broader Sustainability Goals for NLC for 2018-2019

- Continue to work towards identifying energy saving projects that will reduce our carbon footprint.
- Replacing old water fountains with bottle fillers that keep track of how many times they are used, thus giving us the availability to see how many bottles are being saved
- Smaller plans such as putting up idle free zone signs, using rain barrels to catch water for grounds maintenance, planting more trees to offset CO2 levels, using less lights during spring and summer seasons. Educating staff better on being carbon neutral.



- With the new Trades Centre being built, we will see the decommissioning of several very old buildings, which will see financial savings in both for heating, cooling and electrical, as well as repair and maintenance of the older less efficient buildings.



- Our biomass furnace that we already have, can now be used to not only heat our Main Campus Centre in Dawson Creek, but also the new Trades Centre



- Renovate older buildings to add better insulation and efficient windows, doors and lighting, for a better insulation factor, which will reduce heating costs and lower the usage of natural resources and also reduce electrical costs
- By continuously upgrading our Video Conferencing we will continue to cut down on driving between Campus's for meetings, thus reducing emissions from vehicles and fuel costs
- 2018 will see the College looking towards a broader, easier way to recycle for staff and students. Which will include a trash audit to be performed on the Dawson Creek Campus to help identify opportunities to reduce waste. Thus lowering our waste that goes to the landfill.
- With the decommissioning of older buildings on the Campus, we will look for ways of recycling materials from these buildings as they are being demolished.

Anticipated Financial, Environmental, or Social Benefits of Reducing Energy Use and/or GHG Emissions

Financial and Environmental – Replacing the old energy intensive facilities with new energy efficient facilities and equipment, the College will lower currently high operational and maintenance costs for existing facilities due to poor building performance, lack of insulation and poorly performing mechanical systems.

The new Trades Building is being build to LEED's standards that includes using green materials and new upgraded materials to insulate which will reduce the amount of heating that should be required for that building.

Cost and emissions savings will be gained by the upgrading of older fleet vehicles and using video conferencing more for meetings, thus saving the amount of vehicles on the road.

Social Benefits – The new and more efficient Trades Centre building will improve NLC facilities, which will in turn enhance student life, revitalize the Dawson Creek Campus, and improve the College's image and ability at recruitment and retention of students. In the process showing the students, staff and the community some newer building methods, using greener materials, to LEED standards.

By introducing a better recycling program to the Campus's, this will show staff and students the benefit of recycling and they then will possibly take the new knowledge and introduce it into their day-to-day lives.

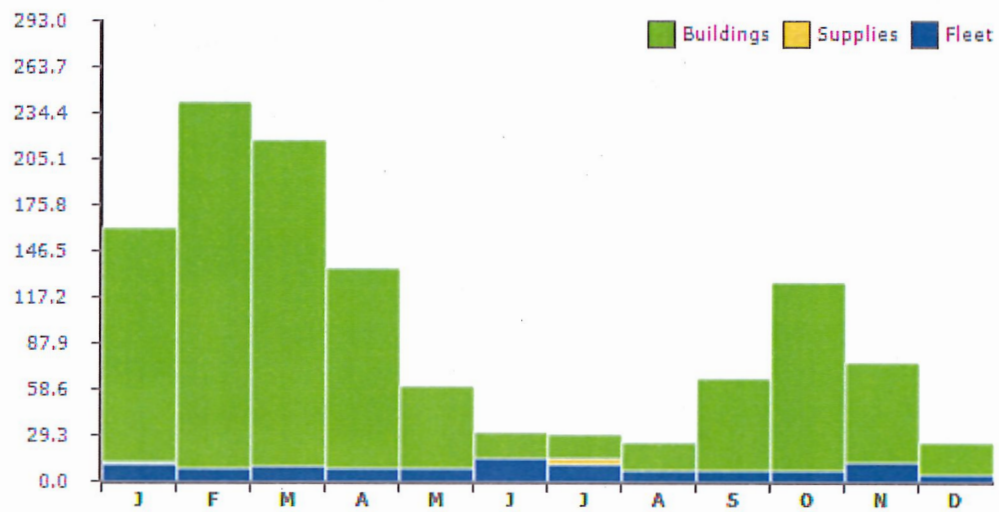
In 2017, the College introduced a Bee Keeping course, helping the sustainability of our bee population. We have also added a Land and Water Resources Diploma. With the introduction of these courses, we are moving forward in our quest for teaching on how to better serve our environment for the future.

Efforts made to Reduce Emissions and Improve Overall Sustainability

- Continue to complete mechanical and electrical renovations to our existing facilities to reduce our energy consumption.
- Continue to use 100% recyclable copy paper and/or paper that is “FSC-Certified”
- Reduce the amount of cleaning products we use, many of which can be used for multiple applications and switching over to more environmentally friendly supplies

Total Emissions Calendar Year 2017 Northern Lights College

Metric tonnes
CO2 equivalent (tCO2e)



[Click on the bars to view data for each month](#)

Totals Calendar Year 2017, Northern Lights College

	Measure	Quantity	CO ₂	Greenhouse Gases in Tonnes			
				BioCO ₂	CH ₄	N ₂ O	tCO ₂ e ¹
Scope 1 (Direct) Emissions							
Mobile Combustion (Fleet)	Litres	49,735.23	112.40	3.93	0.01	0.03	124.49
Stationary Combustion, Reported ³	GigaJoules	21,358.00	1,060.11	0.00	0.02	0.02	1,066.49
Scope 2 (Indirect) Emissions							
Purchased Energy, Reported ³	GigaJoules	10,087.92	30.26	0.00	0.00	0.00	30.26
Scope 3 (Business Travel and Office Paper) Emissions							
Office Paper	Packages	1,200.00	7.63	0.00	0.00	0.00	7.63
Total Emissions, Calendar Year 2017			1,210.41	3.93	0.03	0.05	1,229
Carbon Neutral or Offset Exempt			0.00	3.93	0.00	0.00	4
Total for Offsets ⁴			1,210.41	0.00	0.03	0.05	1,225

1. Each greenhouse gas has been converted to a standard measurement (tCO₂e) by multiplying its emissions by its global warming potential (GWP). The GWP of carbon dioxide (CO₂) from both anthropogenic and biogenic sources is 1; methane (CH₄) is 25, and nitrous oxide (N₂O) is 298. The Totals for tCO₂e are shown here rounded to the nearest whole metric tonne as only whole tonnes of tCO₂e can be purchased for offsets.

2. Estimated data has been calculated based on the methods described in the Methodology Document.

3. Reported data refers to consumption which has been directly billed to the organization.

4. The tCO₂e value from the "Total for Offsets" line represents the quantity of offset purchases required to become carbon neutral.

Executive sign-off:

Andrea Graff

Signature

May 30, 2018

Date

Andrea Graff

Name (please print)

VP Finance: Corporate Services

Title



Northern Lights College
BC's Energy College

Part 1: CNAR Survey

1. General Information

Name: Cathy Vreeling

Contact Email: cvreeling@nlc.bc.ca

Organization Name: Northern Lights College

Sector: Post Secondary

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

During 2017, did your organization take any of the following actions to support emissions reductions from buildings? (please select all that apply)

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

If you selected "*Performed energy retrofits of the organization's building(s)*":

How many buildings were retrofitted?:

If you selected "*Built, or are building new LEED Gold or other "Green" buildings*":

How many new "Green" buildings?: 1

Did your Organization perform any retrofits during 2017? Please describe briefly:

We did not perform any retro fits in 2017.

2a. Stationary Sources (eg. Buildings, Power Generators): Fuel Combustion, Electricity use, Fugitive Emissions.

Please briefly describe your organization's plans to continue reducing emissions from its stationary sources:

a) Over the next 1-5 years

We are performing a lighting audit at several of our Campus's, in the attempt to see where we need to upgrade our lighting.

b) Over the following 6-10 years

Nothing in the works as of yet.

3. Mobile Sources (Vehicles, Off-road/portable Equipment): Fuel Combustion:

During 2017, did your organization take any of the following actions to support emission reductions from its mobile sources? (please select all that apply)

Replaced existing vehicles with more fuel efficient vehicles (gas/diesel); Took steps to drive less than previous years

If you selected "*Replaced existing vehicles with more fuel efficient vehicles (gas/diesel)*":

How many vehicles?: 6

If you selected "*Replaced existing vehicles with hybrid or electric vehicles*":

How many vehicles?:

3a. Mobile Sources (Vehicles, Off-road/portable Equipment): Fuel Combustion:

Please briefly describe your organization's plans to continue reducing emissions from its mobile sources:

a) Over the next 1-5 years

We are upgrading our video conferencing, so we do not have to do as many face to face meetings. And will continue to upgrade our fleet to more efficient vehicles.

b) Over the following 6-10 years

Nothing planned as or yet and going to keep moving forward with what we are doing.

4. Supplies (Paper): Indicate which actions your PSO took in 2017:

During 2017, did your organization take any of the following actions to support emissions reductions from paper supplies? (please select all the apply)

Had an awareness campaign focused on reducing office paper use

If you selected "*Had a policy requiring the purchase of recycled content paper*":

State the required recycled content here (30%, 50%, 100%):

If you selected "*Had a policy requiring the purchase of alternate source paper (bamboo, hemp, wheat, etc)*", which type of alternate source paper did you use?

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

We have implemented as move comprehensive recycling program in 2017 and hope to see some reductions in paper waste in the near future.

5. Other Sustainability Actions

a) Business Travel

During 2017, did your organization take any of the following actions to support emissions reductions from business travel? (please select all that apply)

None of the above

b) Education/Awareness

During 2017, did your organization have any of the following programs or initiatives to support sustainability education and awareness? (please select all that apply)

A Green, Sustainability or Climate Action Team

c) Other Sustainability Actions

During 2017, did your organization have any of the following programs or initiatives to support sustainability? (please select all that apply)

None of the above