

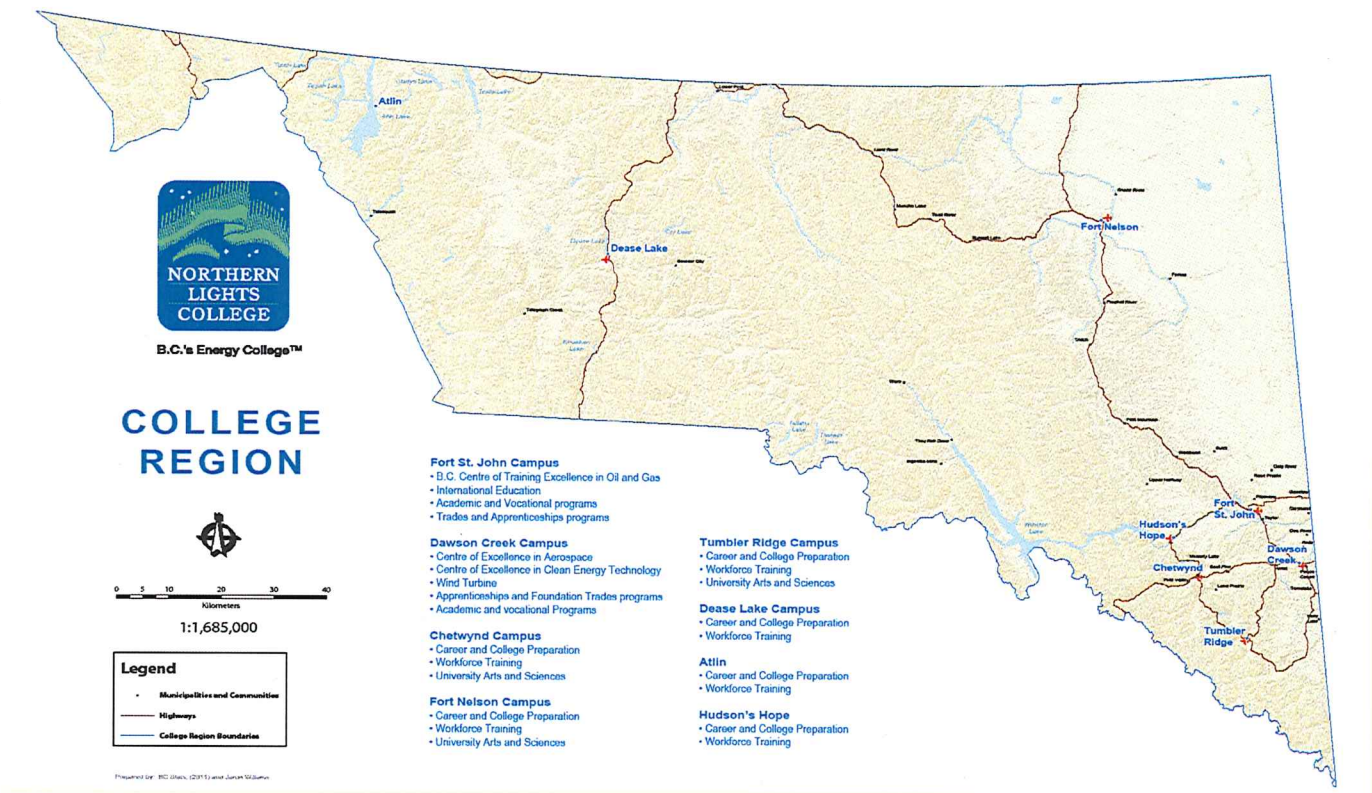
2019 Carbon Neutral Action Report



This Carbon Neutral Action Report for the period January 1st to December 31st, 2019 summarizes our emissions profile, the amount of offsets purchased to reach net zero emissions, the actions we have taken in 2018 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2019 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 throughout all our locations in Northeastern British Columbia.



Key Actions Taken in 2019 to Reduce Emissions:

Buildings

- Indoor lighting is continued to be retro fitted with LED in all areas of the College and its Campus's.
- Continue to replace faucet fixtures with more energy efficient models, thus helping to ensure water savings.
- Continued to upgrade inefficient doors and windows
- Continued to clean venting ducts to improve efficient airflow in buildings. By cleaning these vents, it also helps the health of staff as we can then help ensure that there is less dust being introduced to areas.
- Start to decommission and demolish several older buildings on the Dawson Creek Campus
- Use sustainable and recycled products when renovating rooms and buildings



Fleet

- We are looking into how well hybrid models of vehicles work in colder climates for future purchasing considerations

Other Items

- Northern Lights College continues to use recycled copy paper and when not available uses “FSC Certified” paper
- Seeking ways to reduce the use of paper by copying 2 sided, and making applicable resources “paperless”
- Our Janitorial Department continues to use environmentally friendly cleaning products
- Engaging with other businesses and industries regarding what they are doing to become Carbon Neutral

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 2020-2021

- 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, giving us the availability to see how many bottles are being saved. The number of bottles that were refilled have been over 55,000, in the last three years. Lessening the number of plastic bottles that either are recycled or just end up in the landfill.
- Using rain barrels to catch water for grounds maintenance, planting trees to offset CO2 levels, using less lights during spring and summer seasons. Educating staff better on how to help lessen their carbon footprint.
- With the decommissioning of older buildings on the Campus, we look for ways of recycling materials from these buildings as they are being demolished.
- Renovate and upgrade 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 reduce electrical costs
- Upgrading our DDC controls to more efficiently control temperatures in offices, classrooms and common areas.
- Investigate where solar power applications could be used on our Campus's. How efficient it would be and cost savings over a time period.

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

Financial and Environmental – Demolishing 3 old lager buildings will see more green space accessible. We will no longer have to manage these infectant buildings. This should lower some of the operating costs on Campus.



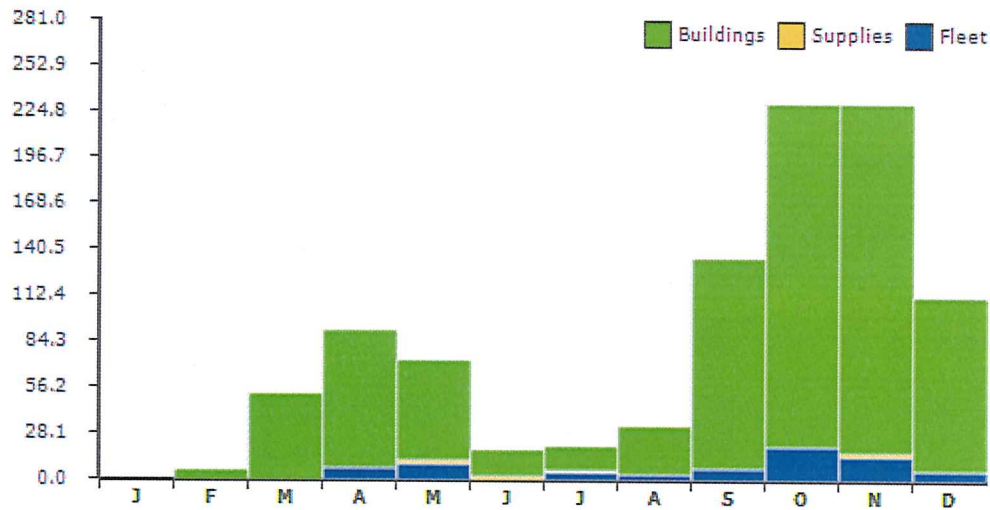
Social Benefits – Improving our green space to help encourage out staff and students to get out more and enjoy the outdoors. Adding walkways and benches along with landscaping to make a more enjoyable experience on Campus.

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.
- Reduce lighting at night in buildings not being used.
- Encourage using environmentally safe products wherever and whenever possible

Total Emissions Calendar Year 2018 Northern Lights College

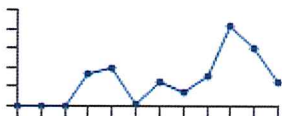
Metric tonnes
CO2 equivalent (tCO2e)



Click on the bars to view data for each month

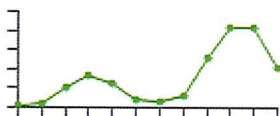
Fleet

GHG Emissions
(Metric Tonnes CO2e)



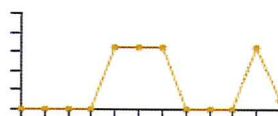
Buildings

GHG Emissions
(Metric Tonnes CO2e)



Supplies

GHG Emissions
(Metric Tonnes CO2e)



Totals Calendar Year 2018, 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	32,808.05	73.78	2.53	0.01	0.02	81.75
Stationary Combustion, Reported ³	GigaJoules	18,336.93	910.43	0.00	0.02	0.02	915.93
Scope 2 (Indirect) Emissions							
Purchased Energy, Reported ³	GigaJoules	6,989.30	20.97	0.00	0.00	0.00	20.97
Scope 3 (Business Travel and Office Paper) Emissions							
Office Paper	Packages	1,660.00	10.55	0.00	0.00	0.00	10.55
Total Emissions, Calendar Year 2018			1,015.74	2.53	0.03	0.03	1,029
Carbon Neutral or Offset Exempt			0.00	2.53	0.00	0.00	3
Total for Offsets ⁴			1,015.74	0.00	0.03	0.03	1,027

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.

Northern Lights College GHG Emissions and Offsets for 2019	
As per the Directive issued March 31, 2020, each PSO will use their 2018 GHG Emissions as a placeholder for the purposes of their 2019 CNAR.	
Total Emissions (tCO ₂ e)	1030
Total BioCO ₂	3
Total Offsets (tCO ₂ e)	1027
Offset Investment (\$25 per tCO ₂ e) [Total Offsets x \$25/tCO ₂ e]	25,675

Retirement of Offsets:

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, Northern Lights College (**the Organization**) is responsible for arranging for the retirement of the offsets obligation reported above for the 2019 calendar year, together with any adjustments reported for past calendar years (if applicable). The Organization hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy (**the Ministry**) ensuring that these offsets are retired on the Organization's behalf, the Organization will pay within 30 days, 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:

Andrea Graff

Signature

June 2, 2020

Date

Andrea Graff

Name (please print)

VP Finance: Corporate Services

Title

Confirmation number: 00C4211E

Submitted date: 2020-06-22 16:25:28 Pacific Daylight Time

Carbon Neutral Action Report Survey - 2019

Public sector organizations (PSOs) are required to complete this survey, in addition to a Carbon Neutral Action Report (CNAR) as mandated by BC's [Climate Change Accountability Act](#) and the [Carbon Neutral Government Regulation](#).

Due to the COVID-19 pandemic, the following [Directive](#) was issued on March 31, 2020. Certain deadlines were also extended for the 2019 reporting year (see below).

March 31, 2020 Directive:

Under my authority as the Director for the purposes of the Act, and under the authority delegated to me in Section 6 of the Carbon Neutral Government Regulation, I hereby direct that all ministries and Public Sector Organizations covered by the Carbon Neutral Government requirement shall use their 2018 GHG emissions as a temporary estimate for their actual 2019 GHG emissions, for the purposes of the 2019 Carbon Neutral Action Reports and 2019 Carbon Neutral Government reporting required under the Climate Change Accountability Act.

Neil Dobson, Executive Director, Clean BC Implementation
Climate Action Secretariat

Although 2018 emissions data will be used as a placeholder for 2019, **all other (qualitative) components of the CNAR and CNAR Survey are to be completed with information from 2019 (e.g., actions taken or planned to reduce emissions)**. The only change to the survey is that the deadline was extended by one month to June 30, 2020.

This survey is divided into two parts:

Part 1 - Will be made public on the Climate Action Secretariat (CAS) [website](#) after June 30, 2020; however, it will not be appended directly to each individual PSO CNAR as was done in previous years. This section collects details about actions taken or planned to reduce emissions and is intended to supplement the legislative requirements in your CNAR.

Part 2 - Will NOT be made public. Information you provide in this section is important and will be used internally to help CAS staff with planning for emissions reduction and climate change adaptation initiatives. Although not required, PSOs are highly encouraged to complete Part 2.

Note: Survey progress can be saved at any time by clicking the "Save and continue later" button at the bottom of each page. A new window will open and you will be asked to provide your name and email. An email will be sent to you from Carbon.Neutral@gov.bc.ca with the subject line: "Questionnaire Link", which will include a hyperlink for the "Project: Carbon Neutral Action Report Survey – Broader Public Sector 2019". You can then continue responding at another time or email the hyperlink to a colleague to complete remaining section(s).

May 29, 2020	<ul style="list-style-type: none">The final, signed version of the CNAR (or Small Emitters Form) must be submitted by email to: Carbon.Neutral@gov.bc.ca
June 30, 2020*	<ul style="list-style-type: none">Ministry of Environment and Climate Change Strategy must post a final CNAR for each organization on the BC Government's CNG website and each PSO is encouraged to post the report on their website.The CNAR Survey (optional for Small Emitters) must be completed and submitted online. <p>*Deadline extended from May 29, 2020.</p> <ul style="list-style-type: none"><u>All offset invoice payments must be submitted to CAS.</u>
Sept 30, 2020*	<ul style="list-style-type: none">Clean Government Reporting Tool (CGRT) Data Entry must be completed for the 2019 reporting year.

	*Deadline extended from April 30, 2020.
Oct 15, 2020*	<ul style="list-style-type: none"> • Self-Certification checklist must be completed, signed and submitted by email to: Carbon.Neutral@gov.bc.ca. *Deadline extended from May 15, 2020.

*See the [Carbon Neutral Government – Program Requirements website](#) for more information on program requirements, timelines and templates.

PART 1 - Included as part of your public CNAR report.

Reminder that Part 1 will be made public on the CAS [website](#).

Contact Name:
Anndra Graff
Contact Email:
agraff@nlc.bc.ca
Organization Name:
Northern Lights College
Role – Please select the best category for your current role with your organization. If more than one individual completed the survey, multiple categories may be selected:
Other - Please Specify: VP Finance and Corporate Services
Please select your sector:
Post Secondary (PS)

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

Actions taken by your organization in 2019 to support emissions reductions from buildings

Do you have a strategy to reduce emissions from stationary sources?
Yes

Whether you have a strategy or not, briefly describe your organization's plans to continue reducing emissions from stationary sources:

Over the medium-term term (1-5 years)
<ul style="list-style-type: none"> • Indoor lighting is continued to be retro fitted with LED in all areas of the College and its Campus's. • Continue to replace faucet fixtures with more energy efficient models, thus helping to ensure water savings. • Continued to upgrade inefficient doors and windows • Continued to clean venting ducts to improve efficient airflow in buildings. By cleaning these vents, it also helps the health of staff as we can then help ensure that there is less dust being introduced to areas. • Start to decommission and demolish several older buildings on the Dawson Creek Campus • Use sustainable and recycled products when renovating rooms and buildings
Over the long term (6-10 years)
no long term strategies

Please describe your strategy's goals (if any) related to energy audits.

none at this time

What % on average of your building portfolio has an energy audit completed each year (if any)?

0 - no energy audits completed at this time

Please describe your strategy's goals (if any) related to building retrofits.

focusing on lighting, doors, and windows

What % on average of your building portfolio is retrofitted each year in the following categories (if any) - click here for further information:

2%

Minor retrofits (e.g. low cost, easy to implement measures including caulking, lighting, adding roof insulation, etc.)

1%

Major retrofits (e.g. replacing windows and doors, equipment replacement such as boilers, etc.)

1%

Deep retrofits (e.g. replacing roof, replacing the heating, ventilation and air-conditioning system with a renewable technology like a ground-source heat pump, etc.)

0%

Please describe your strategy's re/retro-commissioning goals (if any)?

no specific goals at this time, trying to complete the low hanging fruit with the a minimal budget

What % on average of your building portfolio do you recommission each year?

0

Do you keep records of Refrigerant gases¹ category and refilling volumes?

[1] Fugitive emissions from stationary cooling equipment are attributed to the leakage and loss of HFC and PFC based coolants from air conditioning and commercial type refrigeration systems. Coolant loss can occur during the manufacturing, operation, and disposal of such equipment. Gases that may be reported via CGRT include HFC R-134, HFC R-134a, HFC R-404a, HFC R-407c, HFC R-410a.

No

How many newly constructed buildings received at least LEED Gold certification in 2019?

no newly constructed buildings were completed in 2019

How many newly constructed buildings did not receive LEED Gold certification?

no newly constructed buildings were completed in 2019

Please explain why LEED Gold certification was not obtained for those new buildings.

no newly constructed buildings were completed in 2019

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

Actions taken by your organization in 2019 to support emissions reductions from mobile sources?

Do you have a strategy to reduce emissions from mobile sources?

No

Whether you have a strategy or not, briefly describe your organization's plans to continue reducing emissions from mobile sources:

Over the medium-term term (1-5 years)

- We are looking into how well hybrid models of vehicles work in colder climates for future purchasing considerations

Over the long term (6-10 years)

no long term strategies

How many fleet vehicles did you purchase from the following categories:

Electric Vehicle – EV - (e.g., Nissan Leaf, Chevy Bolt)

0

“Plug In” Electric Vehicle – PHEV (e.g., plug-in Prius, Chevy Volt)

0

Hybrid vehicle – HEV – non “Plug In”- (e.g., Toyota Highlander Hybrid)

0

Hydrogen fuel cell vehicle

0

Natural gas/propane

0

Gas/diesel vehicle

0

Actions taken by your organization in 2019 to support emissions reductions from mobile sources? (Continued)

How many existing EV charging stations does your organization have in each category:

Level 2?

0

Level 3?

0

How many level 2 stations (if any) are specifically for your fleet vehicles?

As defined as Level 2 stations only your organization's fleet vehicles may use

0

How many level 3 stations (if any) are specifically for your fleet vehicles?

As defined as Level 3 stations only your organization's fleet vehicles may use

0

How many EV charging station(s) did you install in 2019 in each category:

Level 2?

0

Level 3?

0

How many level 2 stations (if any) were installed specifically for your fleet vehicles?

As defined in the previous section

0

How many level 3 stations (if any) were installed specifically for your fleet vehicles?

As defined in the previous section

0

Please indicate the total number of the vehicles in the following vehicle classes that are in your current fleet

Definitions:

- Light duty vehicles (LDVs) are designated primarily for transport of passengers <13 and GVWR<3900kg
- Light duty trucks (LDTs) are designated primarily for transport of light-weight cargo or that are equipped with special features such as four-wheel drive for off-road operation (include SUVs, vans, trucks with a GVWR<3,900kg)
- Heavy duty vehicles (HDV) includes vehicles with a GVWR>3,900 kg (e.g. ¾ tonne pick-up truck, transport trucks)

Light duty vehicles (LDVs)

Electric Vehicles – EV - (e.g., Nissan Leaf, Chevy Bolt)

0

“Plug In” Electric Vehicle – PHEV -- (e.g., plug-in Prius, Chevy Volt)

0

Hybrid vehicles – HEV – (e.g., non “Plug In”- older Toyota Prius, Toyota Camry hybrid)

0

Hydrogen fuel cell vehicles

0

Natural gas/propane
0

Gas/diesel
10

Light duty trucks (LDTs)

Electric Vehicles – EV
0

“Plug In” Electric Vehicle – PHEV
0

Hybrid vehicles – HEV – (e.g., non “Plug In”- older Ford Escape Hybrid, older Chevrolet Silverado pickup hybrid, etc)
0

Hydrogen fuel cell vehicles
0

Natural Gas/propane
0

Gas/diesel
8

Heavy duty vehicles (HDV)

Electric Vehicles – EV
0

“Plug In” Electric Vehicle – PHEV
0

Hybrid vehicles – HEV – (e.g., non “Plug In”)
0

Hydrogen fuel cell vehicles
0

Natural Gas/propane
0

Gas/diesel
6

Actions taken by your organization in 2019 to support emissions reductions from paper supplies.

Briefly describe your organization's plans to continue reducing emissions from paper use:

Over the medium-term (1-5 years)

- *Northern Lights College continues to use recycled copy paper and when not available uses "FSC Certified" paper*
- *Seeking ways to reduce the use of paper by copying 2 sided, and making applicable resources "paperless"*

Over the long term (6-10 years)

no long term strategies

Do you have an awareness campaign focused on reducing office paper use?

No

Purchased alternate source paper (bamboo, hemp, wheat, etc.)

No