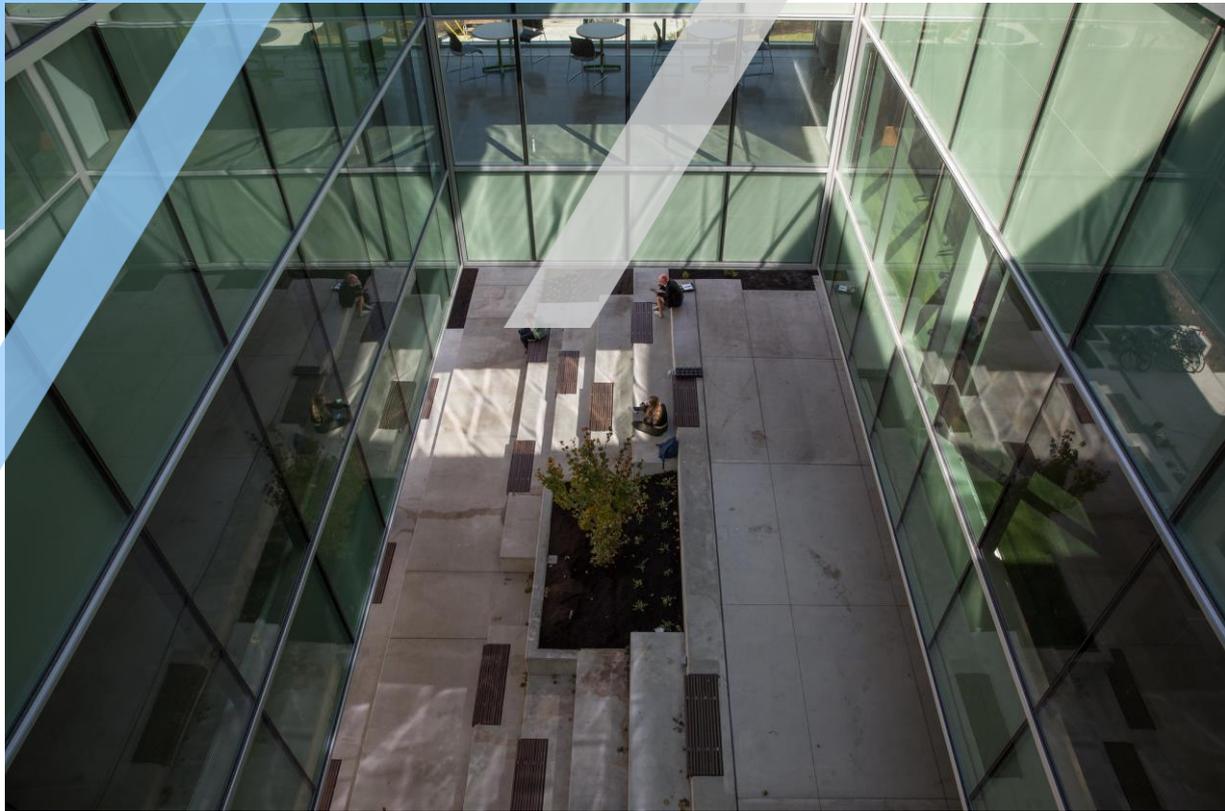


## Carbon Neutral Action Report 2019

# Camosun College



June 2020



## Declaration Statement

This Carbon Neutral Action Report for the period January 1, 2019 to December 31, 2019 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2019 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2020 and beyond.

By June 30<sup>th</sup>, 2020 Camosun College's final 2019 Carbon Neutral Action Report will be posted to our website at: <http://camosun.ca/sustainability/our-commitment/index.html>

## Actions Taken in 2019 to Reduce GHG Emissions

### Buildings

Camosun proudly opened the [Alex and Jo Campbell Centre for Health and Wellness \(CHW\)](#) to students in September 2019. The CHW at Camosun features modern classrooms designed to foster active learning, hands-on labs, simulation environments, collaboration spaces, and a Teaching Clinic, providing services to the public. It brings together the majority of Camosun's health and human services programming.



The state of the art CHW building (97,322 square feet) supports the CleanBC strategy. CHW is built to LEED Gold standard using energy sustainability strategies, including passive exterior solar shades, high-performance exterior materials to minimize heat loss, and lower air conditioning requirements to decrease energy consumption. The building project also includes sustainable transportation features such as a secure bike lock-up and six new Electric Vehicle level 2 charging stations available for staff and students.



Other Actions for buildings in 2019 include:

- Replacing/upgrading boilers at three buildings at Interurban Campus
- Replacement of existing once-through water cooled refrigeration equipment to air cooled refrigeration at Lansdowne Cafeteria Fisher Building
- Bathroom renovations in five buildings to include more efficient sinks and toilets
- HVAC upgrade in Helmet Huber building Interurban Campus
- Completed design and tender documents for building envelope upgrade for the Dental Building

### Paper

Camosun continues to implement strategies to reduce paper usage overall. Processes are being developed to improve scanning capabilities so more departments are able to reduce their need for paper archive. In 2019, Camosun saw a roughly 6.5% reduction (805K sheets) on pages printed and copied from 2018 numbers.

### Fleet

For Camosun's small fleet 2019 saw minimal change in emission levels from 2018 mainly due to a lack of vehicle purchases and fleet use being very similar year over year. We continually look for new opportunities to decrease our carbon footprint, one of these being the upgrading and maintenance. As our fleet ages we will look at replacing certain components (catalytic converters, exhaust systems, etc) and develop a preventative maintenance schedule to help us identify any vehicles that may require extra attention.



## Other Actions in 2019 to Improve Sustainability

### Camosun Sustainability Plan 2018/19- 2021/22

Camosun moved forward in sustainability guided by the overarching [Camosun College Sustainability Plan](#). This plan identifies four key sustainability priority areas (Energy and Emissions, Transportation, Food, Waste and Recycling) and three integrated priorities (Indigenization, Equity Diversity and Inclusion and Wellness.)



### Transportation Demand Management

The Camosun College [Transportation Demand Management \(TDM\) Plan](#) was completed and published in 2019. The TDM plan is an important roadmap for how the College will lead in sustainable transportation actions.

The 2019-2024 Plan represents a 5-year action plan that builds on a strong TDM foundation at the College. The primary goal of the Camosun College TDM Strategy is to provide convenient, environmentally responsible and affordable access to both campuses.

Highlight of programs in 2019:

- The [Alternative Transportation Dividend Program \(ATD\)](#) continued in 2019 for the fourth year and was again offered to faculty and exempt staff. The ATD program incentivizes staff to forgo parking permits in order to receive active transportation benefits.
- [Bike to Work Week](#). Camosun continued to support Bike To Work Week and in 2019 the College focused on an intercampus mega challenge. The spring event encouraged 115 staff and students to cycle to Camosun.
- Camosun expanded the Park and Ride/Walk programs to include three locations.

**Camosun Express** Camosun College continued the Camosun Express, a free shuttle service for staff and students which provides transportation service between the two campus locations. In 2019, the college introduced the new West Shore Commuter Express. This morning and evening service from Interurban to the West shore was served by a 30 seater electric bus.



## Campus Master Planning

The [Camosun Master Plan](#) was finalized in 2019, it is a comprehensive update to the college's long-term plan for both the Lansdowne and Interurban campuses. The Master Plan provides a vision for Camosun's future without being prescriptive, it takes into account future demographics, sustainability, innovation and educational priorities.

## Student Education and Engagement

**New Programing:** In 2019, the School of Trades and Technology continued development of its Clean Energy and Efficient Buildings post diploma program in renewable energy. The program is expected to launch in 2020/21.

**Student AASHE Engagement:** As part of the commitment to student involvement, two Camosun students received funding to participate in the [2019 AASHE Annual Conference & Student Summit, in Spokane, WA](#). Two runner-up students attended the [Livable Cities Forum](#) in Victoria in October 2019. Students had a number of suggestions and are planning to share and collaborate with Camosun to further its sustainability efforts in different areas

**Earth Day Engagement:** Camosun's Sustainability Office, Student Society, Recreation, Student Affair and HealthyTogether Employee Wellness program presented "Cultivating Appreciation Week" which focused on wellness, kindness and plants and took place in celebration of the 2019 Earth Day.

**Employment Training & Preparation (ETP):** This program infuses applied stewardship, indigenization, inclusion, diversity and sustainable practices throughout its approach. In 2019, the program broadened its impact through the E.A.R.T.H. gardening series, with workshops focused on sustainable gardening practices, pollinators, and farm-to-table cooking. With support from the Wild School Grant Word Wildlife Fund (WWF), the program invited pollinators and native plants to foster greater engagement and education on this topic.

**CCSS Sustainability Day:** Camosun College's Student Society hosted a Sustainability Day Fair on the Interurban Campus in 2019, organized by the CCSS Sustainability Director. The student focused event focused on Food, Waste and Transportation.

## Pollinator Friendly Campus

Mason bee houses were constructed by Women in Trades students and are now installed around Camosun's two campuses to support a pollinator friendly campus. In March 2019, 150 mason bees were released.

## Food Service Providers

The College's food services contractor, Aramark has a focus on sustainability regarding dining operations. Aramark's food waste reduction program (LeanPath) resulted in a 2.2% (136 kg) reduction in food waste for 2019.

## Waste

- Facilities Services participated in Zero Waste Forum in Vancouver and currently working on developing actions
- Sustainability Office and Facilities implemented Recycling Program for Pens and Markers. Eight schools/departments have initiated collection programs in addition to collection stations located at each campuses student society.
- [Project Zero Incubator Project](#). Camosun has representation in this new circular economy initiative created by local non-profit Synergy Sustainability Institute. Possible applied learning project and student design competition.
- Sustainability Office developed Green Event Guidelines that have been used in events such as Conversations Days and Graduation



## Plans to Reduce GHGs in the Future (2020 and beyond)

### Buildings

Ongoing actions to reduce emissions for Camosun buildings in 2020 and beyond include:

- Exploration of expanded EV charging stations on the Lansdowne Campus student parking lots
- Conversion of all exterior roadway and parking lot lighting to LED at Interurban Campus including Markham Road
- Dental Building Envelope Lansdowne Campus. Improved heating, cooling and overall efficiency.
- HVAC upgrade at Huber Hall (Red Lab) Interurban Campus
- Alan Batey Library and Learning Commons Lansdowne Campus boiler replacement

### Supporting Energy & Emissions Action Plan Goals

Camosun's *Sustainability Plan* outlines long-term aspirations to achieve significant energy and emissions reductions. Three-year goals will guide Camosun's work, these include:

- A formal Energy Management Plan supported by an Energy Manager.
- Established an Energy Savings Revolving Fund where savings from reduced energy use can fund further sustainability initiatives.
- Established monthly and annual resource consumption reporting in all buildings through smart meters for electrical, gas, water and hydro.
- Developed and launched a one-year advanced diploma program in renewable energy.
- Develop capstone projects with a focus on interdisciplinary learning and sustainable energy.

## Emissions and Offset Summary Table:

<b>Camosun College GHG Emissions and Offsets for 2019</b>	
<b>As per the <a href="#">Directive</a> issued March 31, 2020, each PSO will use their 2018 GHG Emissions as a placeholder for the purposes of their 2019 CNAR.</b>	
<b>Total Emissions (tCO<sub>2</sub>e)</b>	(0.35 + 1989)
<b>Total BioCO<sub>2</sub></b>	0.35
<b>Total Offsets (tCO<sub>2</sub>e)</b>	1989
<b>Offset Investment (\$25 per tCO<sub>2</sub>e)</b>	1989 x \$25 = \$49, 725

**Retirement of Offsets:**

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, Camosun College 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:**

*Deborah Huelsher*

*May 28, 2020*

Signature

Date

*DEBORAH HUELSCHER*

*VP ADMINISTRATION & CFO*

Name (please print)

Title

**Confirmation number:** 00C5011A

**Submitted date:** 2020-06-30 15:12:22 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](mailto: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"><li>The final, signed version of the <b>CNAR</b> (or Small Emitters Form) must be submitted by email to: <a href="mailto:Carbon.Neutral@gov.bc.ca">Carbon.Neutral@gov.bc.ca</a></li></ul>
June 30, 2020*	<ul style="list-style-type: none"><li>Ministry of Environment and Climate Change Strategy must post a final CNAR for each organization on the BC Government's CNG <a href="#">website</a> and each PSO is encouraged to post the report on their website.</li><li>The <b>CNAR Survey</b> (optional for Small Emitters) must be completed and submitted online. *Deadline extended from May 29, 2020.</li><li><u>All offset invoice payments must be submitted to CAS.</u></li></ul>
Sept 30, 2020*	<ul style="list-style-type: none"><li><b>Clean Government Reporting Tool (CGRT) Data Entry</b> must be completed for the 2019 reporting year.</li></ul>

	*Deadline extended from April 30, 2020.
Oct 15, 2020*	<ul style="list-style-type: none"> <li>• <b>Self-Certification checklist</b> must be completed, signed and submitted by email to: <a href="mailto:Carbon.Neutral@gov.bc.ca">Carbon.Neutral@gov.bc.ca</a>.</li> </ul> *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](#).

<b>Contact Name:</b>
<i>Shannon Craig</i>
<b>Contact Email:</b>
<i>craigs</i>
<b>Organization Name:</b>
<i>Camosun College</i>
<b>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:</b>
Sustainability Coordinator Facilities/Operations Manager/Coordinator
<b>Please select your sector:</b>
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

<b>Do you have a strategy to reduce emissions from stationary sources?</b>
Yes

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

<b>Over the medium-term term (1-5 years)</b>
<ul style="list-style-type: none"> <li>- Exploration of expanded EV charging stations on the Lansdowne Campus student parking lots ☐</li> <li>- Conversion of all exterior roadway and parking lot lighting to LED at Interurban Campus including Markham Road</li> <li>- Dental Building Envelope Lansdowne Campus. Improved heating, cooling and overall efficiency. ☐</li> <li>- HVAC upgrade at Huber Hall (Red Lab) Interurban Campus ☐</li> <li>- Alan Batey Library and Learning Commons Lansdowne Campus boiler replacement</li> </ul>

**Over the long term (6-10 years)**

*We will be guided by our Campus Master Plan and Camosun Sustainability Plan.*

*Some of the long term goals include:*

- A formal Energy Management Plan supported by an Energy Manager<sup>9</sup>.
- Established monthly and annual resource consumption reporting in all buildings through smart meters for electrical, gas, water and hydro.
- Developed and launched a one-year advanced diploma program in renewable energy.
- Develop capstone projects with a focus on interdisciplinary learning and sustainable energy.

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

N/A

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

N/A

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

*Our strategy is to use the VFA as a guideline for asset replacement base on end of useful life as determined by the VFA, where there are budget constraints, we prioritize the oldest asset for replacement, or try to include in larger upgrade projects for specific buildings.*

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

*see below*

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

10%

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

10%

**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.)**

10%

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

*The college typically engages in retrofitting versus recommissioning, as we develop our building management systems, this will allow us to look further at re-commissioning.*

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

0%

**Do you keep records of Refrigerant gases<sup>1</sup> 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

What, if any, mitigation approaches have been considered? Please describe.

n/a

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

1

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

0

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

N/A

Other actions? Please describe briefly:

n/a

## 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 continually look for new opportunities to decrease our carbon footprint, one of these being the upgrading and maintenance. As our fleet ages we will look at replacing certain components (catalytic converters, exhaust systems, etc) and develop a preventative maintenance schedule to help us identify any vehicles that may require extra attention.*

Over the long term (6-10 years)

*See above*

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

If you purchased new gas/diesel vehicles, can you briefly explain why vehicles from the other categories were not chosen?

n/a

## 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?

11

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

1

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?

3

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 briefly describe any other related actions, (e.g. charging station feasibility studies, electrical panel upgrades, etc.)

*We are looking to expand EV stations at the Lansdowne Campus in 2020/2021 in our student and general parking lots.*

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)
2
“Plug In” Electric Vehicle – PHEV -- (e.g., plug-in Prius, Chevy Volt)
8
Hybrid vehicles – HEV – (e.g., non “Plug In”- older Toyota Prius, Toyota Camry hybrid)
2
Hydrogen fuel cell vehicles
0
Natural gas/propane
0
Gas/diesel
0

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)
2
Hydrogen fuel cell vehicles
0
Natural Gas/propane
0

Gas/diesel

0

Heavy duty vehicles (HDV)

Electric Vehicles – EV

1

“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

13

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)

*Overarching goal of the strategy is that only 100% recycled paper will be used for all office copying and printing, with no exceptions.*

*Our fleet of office machines has not increased in 2019. A full review process on the acquisition of new machines has enabled consistency. Processes are being worked on to improve scanning capabilities so that more departments are able to reduce the need for paper archives. Additionally, plans include removing a production machine by 2023.*

Over the long term (6-10 years)

*With a scanning plan streamlined the plan continues to be the reduction of the office print fleet by an additional 20% with a continued effort at 5% reduction each year going forward.*

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

No

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

Yes

Other 2019 actions, please specify

n/a