

# Carbon Neutral Action Report

2019

**bcl**c



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.

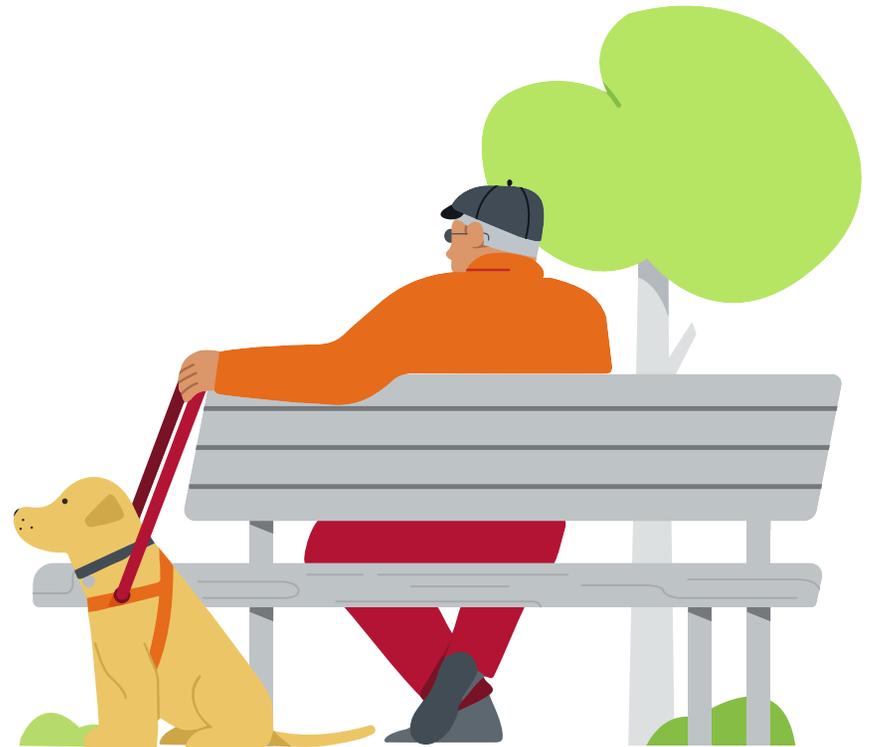
By June 30, 2020 BCLC's final Carbon Neutral Action Report will be posted to our website at [www.bclc.com](http://www.bclc.com).



## Overview

BCLC remains committed to ensuring our operations align with the government's CleanBC climate plan and its targets and strategies for reducing greenhouse gas emissions. To this end, BCLC continues to seek opportunities to:

- maximize the efficiency of electricity consumption in offices
- increase the digitalization of documents and processes
- leverage fleet vehicles to reduce unnecessary air travel
- engage vendors (food services and print services) and educate our staff to support better waste management and reduced office supplies consumption



In 2019, BCLC noted an overall decrease in power demand within its offices, driven by a 2.4 per cent decrease in electricity consumption and 33.5 per cent decrease in diesel consumption from generators when compared to 2018 (see Table 1). This is a result of continued efforts by BCLC to enhance energy efficiency in our buildings. Several other initiatives, including programs led by BCLC's Green Committee, played an important role in building employees' environmental awareness, which is further detailed in the following sections.

BCLC expects this trend of reduced power demand in its offices to continue in 2020. In particular, we plan to continue to focus on reducing electricity consumption associated with the Kamloops Data Centre through strategic utilization of hyper-converged and cloud computing environments and the migration of non-production processes to the cloud. This will result in reduced electricity demand for cooling and powering.

The following table provides a summary of data of BCLC's main emission sources, in the last nine years. The numbers indicate a downward trend.

**Table 1: Activity data for significant emission sources**

<b>Year</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Natural Gas (GJ)	16,263	15,533	16,240	16,901	15,092	13,260	15,205	14,248	14,414
Electricity (GJ)	31,784	33,576	33,783	32,889	32,522	28,712	26,209	25,827	25,218
Fleet Gas (L)	175,518	149,208	160,979	121,027	14,017	21,030	30,388	29,361	39,132
Office Paper (PKG)	6,999	4,952	5,973	6,133	4,616	3,740	3,328	3,548	3,012



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Below is a summary of the actions taken in 2019 and future plans by emission sources

## **Stationary sources—buildings**

### **Vancouver office**

#### **PURCHASED ELECTRICITY**

Electricity consumption continued to decrease in 2019, down 9.6 per cent since 2018. This is largely due to continued efforts to gradually reduce electricity demand in the Vancouver office by replacing lights with Halide LEDs. To date, 95 per cent of the base building lights in the Vancouver office have been replaced with a 10 watt Universal T8 LED bulb. These new LEDs are about ¼ of the wattage of the original lights.

BCLC is also continually looking at ways to increase the efficiency of the office Heating, Ventilation and Air Conditioning (HVAC) systems. In 2019 the fan coil unit schedules were adjusted to improve effectiveness of heating and cooling, resulting in a reduction in electricity consumption. Increasing the efficiency of our HVAC systems will continue to be a focus in 2020.

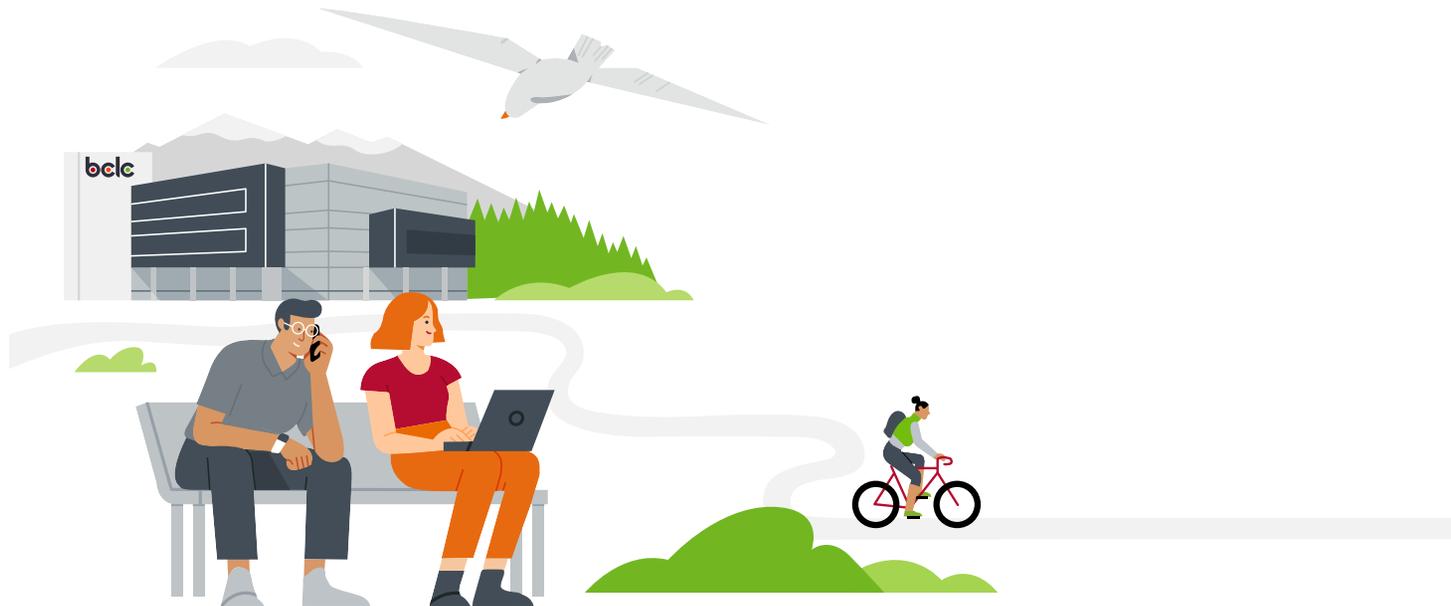
Additionally, to date we have also replaced 85 per cent of desktop computers with laptop computers which draw less electricity per unit. To date we have switched 455 desktops to laptops.

## STATIONARY FUEL COMBUSTION— NATURAL GAS FOR HEATING

2019 saw an increase in demand for natural gas when compared to 2018 likely due to unseasonably colder temperatures in Vancouver. We are continuing to explore options to reduce consumption while keeping our staff and customers healthy and safe. In 2019 BCLC replaced three hot water tanks in the Vancouver office with a more efficient model that will contribute to slightly lower natural gas demand in the coming years.

## STATIONARY AIR CONDITIONING AND REFRIGERATION

Consumption of refrigerant gas increased slightly in 2019 when compared to 2018. This was due to a small leak in a condenser coil in the Vancouver office. Leaks are to be expected occasionally due to aging equipment, however BCLC has an established maintenance schedule in place to prevent and identify such leaks to the extent possible. This program of preventative maintenance will continue in 2020.



## Kamloops office and data centre

### PURCHASED ELECTRICITY

BCLC continued to achieve a steady decrease in electricity consumption in our Kamloops data centre in 2019, when compared to 2018 consumption. This is significant for BCLC from a sustainability point of view, given that the data centre accounts for a significant portion of our electricity consumption in Kamloops.

The decrease in consumption is due to continued efforts in three main areas:

- Replacement of legacy equipment: BCLC replaces legacy equipment with alternatives that are more efficient and denser in storage, typically in a four to five-year cycle. This leads to less physical devices to achieve the same or improved performance. Of all the trends, the ever-greening process has the highest impact on the decrease in data centre power consumption
- Virtualization: Having a single server perform multiple processes requires fewer servers as well as less power and cooling
- Cloud migration: Strategically utilizing “cloud-based” applications that do not require in-house server equipment. In 2020 and 2021, we will continue to deploy hyper converged and cloud computing environments and migrate thousands of non-production processes to the cloud resulting in a dramatic decrease in data centre power consumption



In addition to the initiatives previously listed, an upgrade to our call centre cooling system is planned to occur in 2020. This upgrade supports our expectation to continue reducing the electricity consumption going forward.

## STATIONARY FUEL COMBUSTION— NATURAL GAS FOR HEATING

There was a slight decrease in natural gas consumption in 2019 when compared to 2018. The decrease was small (one per cent), however any variance in natural gas consumption can contribute significantly to BCLC's overall emissions as, in 2018, stationary combustion was equal to 79 per cent of BCLC's overall greenhouse gas (GHG) emissions profile.

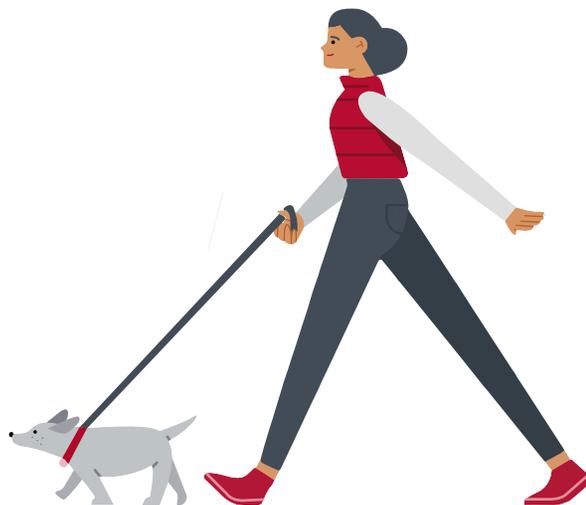
## STATIONARY FUEL COMBUSTION— DIESEL FOR GENSET

Diesel consumption decreased by 37 per cent in 2019 when compared to 2018. This represented a return to expected levels of consumption. Demand was unusually high in 2018 due to building maintenance and resulting electricity outages, which increased demand for the diesel generator. In 2020, we anticipate demand will continue at the levels seen in 2019.

## STATIONARY AIR CONDITIONING AND REFRIGERATION

Consumption of refrigerant gas is largely due to leaks in the stationary air conditioning system. Regular scheduled maintenance has resulted in an overall decrease in the consumption of refrigerant gas by 51 per cent when compared to 2018. A new refrigerant detection system was also installed in Kamloops during 2019 which will alert us to when leaks occur to improve our containment efforts.

BCLC currently conducts visual checks on a weekly basis, and tests equipment once a month. An independent third party also tests the equipment twice annually to ensure all leaks are identified and addressed in a timely manner.



## OFFICE PAPER

The consumption of office paper continued to trend downwards in 2019, falling by 15 per cent from 2018, as a result of the following effort by leadership and staff.

- BCLC initiated a records management program, which included an internal training and awareness campaign to address emerging legislative requirements to digitize new and existing records. As a result, BCLC has experienced a significant, 15 per cent reduction in paper consumption as an outcome of converting to digitized records.
- To support the records management program, we have been in the process of upgrading all multi-function IT tools available to staff. To date, 85 per cent of desktop computers have been replaced with laptops that support flexible work arrangements and decrease demand for printed documents.
- BCLC configured all printers to automatically print double sided.
- BCLC will continue to work with all areas of the business on reducing the amount of paper consumption in the years ahead.

## MOBILE SOURCES— TRANSPORTATION

### GASOLINE CONSUMPTION

Gasoline consumption increased in 2019 due to an 8 per cent increase in the number of kilometers travelled by the BCLC fleet in 2019. This is largely due to a push by BCLC to use fleet vehicles for medium to long distance travel, instead of air travel.

BCLC continues to seek ways to improve the efficiency of its fleet wherever possible. In 2019, the number of vehicles in BCLC's fleet was 16. During the year, two of these vehicles were replaced with Hybrid models following a comparative analysis of the efficiency of the different hybrid and electric models available.

## SUPPORTING INITIATIVES

### GREEN COMMITTEE

In 2019, BCLC's Green Committee conducted several employee-led initiatives and projects aligned to its energy efficiency and corporate greenhouse gas (GHG) emissions reduction efforts.

## Improving sustainability practices and education

BCLC recognises that small changes can make a significant difference in terms of our overall GHG emissions. In 2019, we have taken several small steps that we believe will collectively contribute substantive reductions over time. These changes have included:

- Installing BC Hydro stickers on all light fixtures to remind staff to turn off lights when not in use to reduce energy consumption
- Removing of all single use cups and stir sticks with multi use items to reduce waste
- Construction of a second secure bike cage in Kamloops to support an increase in the number of staff cycling to work



## STRENGTHENING COMMUNITIES THROUGH RECYCLING

For several years now, staff in Kamloops have demonstrated what it means to make our community a more sustainable place. In 2019, BCLC staff and students at a local high school took it upon themselves to educate our staff about the importance of recycling soft plastics. The group conducted a workshop which aimed at educating staff on what can, and cannot be, collected as part of the curbside collection services. Additionally, the group has taken it upon themselves to collect soft plastics from staff at BCLC and return them to local recycling depots for proper sorting. So far, the initiative has diverted 26kgs of waste from landfills.

## GIVING BACK TO OUR LOCAL COMMUNITY

In Kamloops, BCLC has committed to the Adopt-A-Block program. The program helps to organize volunteers, including companies and individuals, to assist the City with keeping Kamloops' roadsides and nature trails beautiful. Volunteers from BCLC help to maintain the environment around the BCLC office and surrounding area and has been a huge hit with staff. We intend to continue with the program in the coming years.

Additionally, in 2019, we were involved in the Make A Mat program which recycles plastic shopping bags into sleeping mats for the homeless in the Kamloops community. The program supports both BCLC's social and environmental objectives. To date BCLC staff have contributed over 1,400 bags to the program

## Sourcing sustainable and local promotional items

Each year our stakeholder engagement team attends a variety of events and has transitioned toward locally produced, sustainable promotional items such as water bottles, produce bags and straws that are all reusable. This year, to support the host communities of the regional local government annual general meetings, which BCLC sponsors, the team purchased local items such as beeswax wraps made in Kelowna (Okanagan region), soap bars made in Nanaimo (Vancouver Island communities) and organic coffee produced in Prince George (Northern region). These sustainable items supported local business and showcased their products. BCLC has also begun a review of our procurement policies to incorporate sustainable considerations into our purchasing decisions.



### GREEN4GOOD

BCLC works with Green4Good to help address IT asset disposition needs. Through this program, we are able to promote second life for our technology, maintain data security and help generate cash and new technology for charity. In 2019, BCLC responsibly and securely disposed of over 40,000 pounds of IT assets, ensuring 100% of this hardware was repurposed or recycled.

## Emissions and offset summary table

### BCLC'S GHG EMISSIONS AND OFFSET FOR 2019 (TCO<sub>2</sub>E)

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 <sub>2</sub> e)	907
Total BioCO <sub>2</sub>	3
Total offsets (tCO <sub>2</sub> e)	905

### ADJUSTMENTS TO GHG EMISSIONS REPORTED IN PRIOR YEARS

Total emissions (tCO <sub>2</sub> e)	0
Total offsets (tCO <sub>2</sub> e)	0

### GRAND TOTAL OFFSETS FOR THE 2018 REPORTING YEAR

Grand total offsets required (tCO <sub>2</sub> e)	905
Total offset investment	\$22,625

### RETIREMENT OF OFFSETS

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, BCLC (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

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke, positioned above a thin horizontal line.

**PETER TER WEEME**

Vice President, Social Purpose & Stakeholder Engagement

May 29, 2020



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