

2018 CARBON NEUTRAL ACTION REPORT

KEEP CANNABIS AWAY FROM YOUTH.

It's illegal to buy for minors. Youth are at a greater risk of harm from non-medical cannabis.

BC CANNABIS
bccannabis.ca




Are you Buy

Know the risks

Start low, go slow



Plant Anatomy



Plant Types



THC & CBD



Terpenes



THE YOUR WAY

PERIENCE




LIQUOR DISTRIBUTION BRANCH

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This Carbon Neutral Action Report for the period January 1st, 2018 to December 31st, 2018 summarizes the Liquor Distribution Branch’s (LDB) emissions profile, the total offsets to reach net-zero emissions, the actions the LDB took in 2018 to reduce its greenhouse gas emissions and the LDB’s plans to continue reducing emissions in 2019 and beyond.

By June 30, 2019, the LDB’s final Carbon Neutral Action Report will be posted at www.bcldb.com.

EXECUTIVE SUMMARY

As the sole buyer and re-seller of liquor in the province's mixed public-private model, the BC Liquor Distribution Branch (LDB) is committed to being environmentally responsible and sustainable in its operations.

Those operations were carbon neutral in 2018 for the ninth consecutive year. We met our targets by investing in BC-based carbon reduction projects through the BC Ministry of Environment to offset remaining emissions.

The LDB faced significant challenges in our goal of promoting environmental responsibility through employee training and awareness campaigns, as our workforce grew by 15 per cent thanks to the addition of a new line of business in the wholesale distribution and retail sale of non-medical cannabis. Many of those employees were on the move this year as we transitioned our Liquor Wholesale customers and operations to a new warehouse in Delta and consolidated Head Office employees from three locations, to one.

Our new Head Office is one of four LEED Platinum buildings in Metro Vancouver, a feature that reflected our search for a location that exemplified a healthy and efficient green building. LEED, or Leadership in Energy and Environmental Design, is the most widely used green building rating system in the world and provides a framework to create healthy, highly efficient and cost-saving buildings.

The LDB continues to respond to its customers and stakeholders, who share our values of social responsibility and environmental sustainability. We are constantly seeking out better practices, processes by which our stores and distribution centres can influence the packaging requirements of suppliers, and working with the relevant stewardship organizations to influence regulations and standards to minimize our environmental footprint.

As one of BC's largest retailers, the LDB values our public sector employees and their efforts and contributions to improve the lives of all British Columbians. This report highlights our efforts to continue building on our legacy of environmental leadership.



Blain Lawson
General Manager and Chief Executive Officer

2018 HIGHLIGHTS

Electricity Conservation



Four BC Liquor Store construction and renovation projects installed high-efficiency LED lighting throughout the store.

Responsible Purchasing



Ninety-six per cent of office paper purchased contained 100 per cent recycled content. Four per cent contained either 30 per cent recycled content or was from responsible sources.

Recycled Materials



BC Liquor Store plastic bags are made in BC from 20 per cent recycled plastic bottles. Single bottle paper bags are made from 97 per cent post-consumer recycled content. In 2018, five BC Liquor stores in the City of Victoria switched from plastic to paper bags made with 40% post-consumer recycled content. Since its opening in October 2018, the BC Cannabis Store in Kamloops has exclusively used compostable paper bags for customer purchases.

Recycling

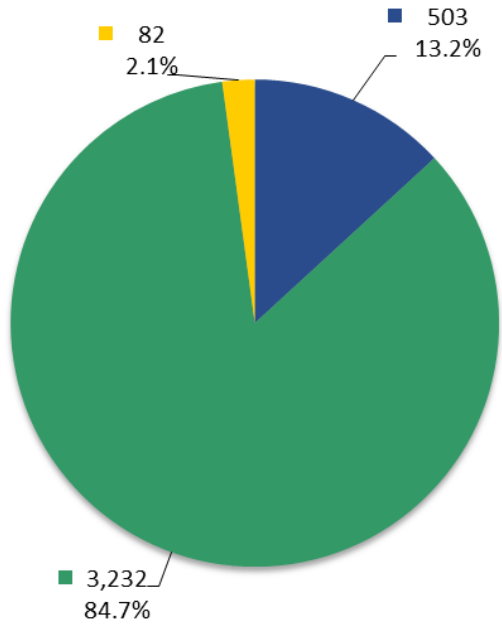


Approximately 2,698 tonnes of cardboard and 143 tonnes of plastic were recycled from LDB retail locations and distribution centres.

Emissions and Offsets Summary:

Liquor Distribution Branch GHG Emissions and Offset for 2018 (TCO2E)	
GHG Emissions created in Calendar Year 2018	
Total Emissions (tCO ₂ e)	3,817
Total Offsets (tCO ₂ e)	3,798
Adjustments to GHG Emissions Reported in Prior Years	
Total Emissions (tCO ₂ e)	-2
Total Offsets (tCO ₂ e)	-2
Grand Total Offsets for the 2017 Reporting Year	
Grand Total Offsets (tCO ₂ e)	3,796

**BC Liquor Distribution Branch
Greenhouse Gas Emissions by Source
for the 2018 Calendar Year (tCO₂e*)**



Total Emissions: 3,817

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion (Building Heating and Generators) and Electricity

Offsets Applied to Become Carbon Neutral in 2018

Total offsets required: **3,798**. Total offset investment: **\$94,950**. Emissions which do not

*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

Actions Taken to Reduce Greenhouse Gas Emissions in 2018

In 2018, the LDB took steps to reduce emissions from all major sources covered by the *Climate Change Accountability Act* – vehicle fleet fuel use, paper use and the most significant source of emissions: buildings. During 2018, the LDB’s facilities expanded to include a new distribution centre in Delta (DDC), which is replacing the existing Vancouver Distribution Centre (VDC), as well as a new distribution centre in Richmond and a retail location in Kamloops to serve customers of BC Cannabis stores. Our facilities during 2018 included four distribution centres, and 198 BC Liquor Stores and BC Cannabis Stores (total).

Some of the LDB’s GHG reduction activities from 2018 are highlighted below:

Improved energy efficiency of buildings

In an effort to continuously improve the energy-efficiency of its buildings, the LDB periodically updates its construction specifications handbook. This handbook provides building contractors with information they need to ensure all projects – new or renovated – in BC Liquor Stores meet the LDB’s energy-efficient requirements. Additionally, architectural drawings specify energy-efficient requirements, where needed. Below are examples of energy-efficiency measures taken in 2018.

- Four BC Liquor Store renovations and construction projects completed in 2018/19 used efficient LED fixtures for lighting throughout the stores. Twenty-four stores across BC are now completely outfitted with LED lighting, while other stores have a combination of LED lighting and high-efficiency CFL lighting.
- The BC Cannabis Store in Kamloops, which opened in October 2018, also features LED backlit informational panels and high-efficiency lighting throughout the store.
- All walk-in, rear-loading *coldzone* coolers installed in 2018 contain equipment that allows for remote monitoring and control for ongoing optimization by Head Office employees trained in energy-efficiency. New coolers installed also feature thicker insulation – reducing energy consumption by approximately 25%.
- In 2018, ahead of the transition of operations from the Vancouver Distribution Centre, the new Delta Distribution Centre had existing lighting replaced with high-efficiency LED lighting.



Improved fleet efficiency

New high-efficiency electric powered mobile warehouse equipment, including 17 new forklifts, 27 reach trucks, and 33 pallet movers were purchased in 2018 for the Delta Distribution Centre. The new reach trucks purchased use up to 21% less energy than competing models resulting in fewer battery changes and less electricity used.

Purchased paper from responsible sources and took steps to reduce paper usage

In 2018, ninety-six per cent of the LDB's office paper used at Head Office and in BC Liquor Stores consisted of 100 per cent post-consumer recycled content. The remaining four per cent of office copy paper used had either 30 per cent post-consumer recycled content or was made from responsible sources (i.e. Forest Stewardship Council certified paper).

The LDB Prints Responsibly

LDB publications are printed on recycled paper with vegetable-based inks. The LDB's TASTE magazine, distributed to customers in BC Liquor Stores, is printed on Forest Stewardship Council-certified paper from responsible sources with a mix of 10 per cent recycled content.



Plans to Continue Reducing Greenhouse Gas Emissions in 2019 – 2021

Over the next three years, the LDB will continue to focus on its primary sources of greenhouse gas emissions and look for opportunities to reduce them further before purchasing carbon offsets. Below are some upcoming projects at the LDB:

Continue to improve building energy efficiency

- In early 2019, the LDB Head Office is relocating to a new office space certified as LEED Platinum in 2010 under the LEED BD+C: Core and Shell (Version 2.0) rating system. The green building uses an air-source variable refrigerant flow system that reduces electricity consumption by about 35% over a conventional HVAC system. The building also features extensive use of natural light and has lighting sensors and dimmers installed to conserve electricity.
- The LDB will continue to use efficient LED lighting in BC Liquor Stores and BC Cannabis Stores construction and renovation projects.
- *Coldzone* cooler installations will continue to use the more efficient insulation and will be monitored remotely to ensure optimal energy use.

Look for Fleet Efficiency Opportunities

- Conduct fleet vehicle inventory assessment to identify opportunities for future low or zero emissions fleet vehicles
- Continue to explore electric vehicle charging opportunities at existing LDB facilities

Conserve more paper

- In our new Head Office location, we will utilize Secure Print – software that will enable improved control over print use thanks to a security mechanism that requires each job to be authorized at the printer site.

REDUCING PROVINCIAL EMISSIONS AND IMPROVING SUSTAINABILITY

In addition to reducing GHG emissions from the sources that fall within the reporting requirements of the *Greenhouse Gas Reduction Targets Act*, the LDB is improving sustainability in other areas – from education and awareness to material conservation and waste reduction. These measures will help BC meet its provincial greenhouse gas reduction targets and improve environmental sustainability across all aspects of the LDB.

Sustainability Actions Taken in 2018

Promoted environmental sustainability through education, awareness and engagement

For Earth Day 2018, the LDB Green Team hosted a screening of the documentary film “Battle of the Bag.” The film aligned well with the theme of Earth Day 2018, which was “End Plastic Pollution.” LDB Head Office employees were invited to view the documentary and stay for a discussion following the screening with the Manager of Environmental Initiatives at the LDB.

BC Liquor Stores also designated April as Earth Month and posted signage through the stores featuring statistics about environmental actions taken by the LDB. Organic products were also featured. Examples of the in-store signage are provided below.



Sustainable transportation encouraged

As is done every year, Bike to Work Week was promoted at BC Liquor Stores across BC, the LDB Head Office, and the Vancouver Distribution Centre in spring 2018. Light snacks and refreshments were provided to cyclists who biked to work at the LDB Head Office and the Vancouver Distribution Centre.

Forty-four employees participated from Head Office, Vancouver Distribution Centre and BC Liquor Stores. LDB employees reported cycling a total of 1,949 kilometers. A sample of photos of LDB participants is included below.



Get Home Safe

The LDB'S signature social responsibility program, *Get Home Safe*, launched in 1997, promotes responsible beverage alcohol consumption through print- and web-based promotions. Customers are reminded not to drink and drive, and to think about using public transit as an alternative way to get home. To support this program, free transit passes were provided to attendees at the 2018 Vancouver International Wine Festival.



Additionally, in 2018, the LDB re-launched the existing carpool program in preparation to the move to our new Head Office in early 2019. More than 60 employees signed up with a carpool which, once implemented, will result in at least 30 vehicles off the road and reduced commuting emissions from LDB employees.

Reduced waste by expanding and improving recycling program

For a number of years, the LDB has had an extensive recycling program in place. The majority of recyclable materials generated in BC Liquor Stores is returned to its two distribution centres for consolidation before being sent to recycling facilities, as is material generated at Head Office and the distribution centres. In 2014, the LDB Executive approved a multi-year *Waste Reduction and Recycling Strategy*. In 2018, the actions listed below were taken to support the strategy:

- At the Head Office and Vancouver Distribution Centre, the weight of garbage, cardboard, soft plastic, organic material, metal, wood, mixed containers, paper, Styrofoam and used electronics is tracked on a monthly basis. In 2018, the LDB achieved a diversion rate of 80% per cent for the second year in a row at Head Office and Vancouver Distribution Centre.
- Across BC, the LDB recycled 2,698 tonnes of cardboard and 143 tonnes of plastic
- During two clean up days at Head Office in 2018, additional waste collection streams and bins were made available to employees to encourage the recycling or donation of unwanted office items ahead of our Head Office move. Over two clean up days in 2018, we recycled or donated more than 13,000 kg of material.

The LDB Builds Green

In new and remodeled BC Liquor Stores, paint is non-toxic, flooring is made from material with low chemical emissions, and tiles, glues and finishes have low chemical emissions.

In 2014, the LDB introduced flooring in BC Liquor Stores which does not require waxing and polishing which further eliminates chemical use in the stores. Fifty-five stores now have this flooring, twenty-seven of which had the flooring installed in 2018.



Reduced waste associated with plastic bag use and supports recycling across BC

- Since 2017, BC Liquor Stores introduced plastic bags made in BC containing 20% recycled plastic bottles and paper bags containing 97% post-consumer recycled content.
- In 2018, 5,000 reusable bags were distributed to customers at BC Liquor Stores ahead of the municipal bylaw banning plastic bags in the City of Victoria. New paper bags comprising at least 40% post-consumer recycled content were distributed to BC Liquor Store customers beginning in July 2018 in accordance with the bylaw.
- When it opened in October 2018, the BC Cannabis Store in Kamloops, BC distributed only paper bags to customers with purchases and utilizes no plastics for checkout bags.
- The LDB determines the weight of all plastic bags, paper bags, flyers, brochures, and magazines distributed each year and then contributes financially to Recycle BC to cover the cost of recycling them. Supporting this program allows customers to return plastic bags free-of-charge to designated return locations across the province.
- Reusable bags are sold in every BC Liquor Store.



BC Liquor Store Customers Do Their Part for the Environment

Customers can return empty alcohol beverage containers for refund to any BC Liquor Store across the province. Annually, approximately 93 million containers are returned to BC Liquor Stores for recycling.



The LDB is committed to improving the environmental sustainability of its operations. Below are a few examples of the steps the LDB will be taking in coming years to meet its environmental goals:

Reduced waste associated with plastic checkout bags

- The LDB is looking at options for eliminating plastic bags from BC Liquor Stores in 2019/2020. In addition to the City of Victoria, a number of other municipalities across BC are considering restricting the use of plastic checkout bags. Five BC Liquor Stores have already eliminated plastic bags and in the near term, we are aiming to expand the number of stores using paper bags instead of plastic and strongly encouraging customers to bring in a reusable bag for their purchases.
- Additionally, for Earth Day 2019, “Remember Your Reusable Bag” signage and “Do you need a bag?” counter decals will be posted throughout BC Liquor Stores. The Head Office will send updated communications to store employees, reminding them to ask customers if they need a bag before offering one.

Expand education, awareness and engagement

- The LDB Green Team will continue to host Earth Day events, invite speakers to present, host engaging sessions around sustainability and climate change, screen documentary films, and will focus on expanding its membership.
- With the move to a LEED Platinum certified Head Office that includes outdoor space, the Green Team will move forward with programs and initiatives that encourages employees to go outside during breaks and to interact with nature during their workday.

Sustainable commuting

- The LDB’s new Head Office will feature two fast-charging electric vehicle stations. As more employees make the switch to electric vehicles, the LDB will look for opportunities to incorporate additional charging capacity to our facilities.
- The LDB Head Office Carpool Program will launch at the new Head Office, with more than 60 employees interested in participating. Carpool vehicles will be designated as such and receive priority parking.

Organic Products in BC Liquor Stores

- The LDB currently sells around 50 organic beverage alcohol products in its BC Liquor Stores and will continue to provide a wide range of organic products to customers.

Sustainability Messaging at BC Cannabis Stores

- With the addition of new BC Cannabis Stores in 2019 and beyond, the LDB will include Earth Month signage and campaigns that promote sustainability at BC Cannabis Stores



BC Liquor Store Green Wall

Two BC Liquor Store construction and renovation projects completed in 2018 included the addition of a 'green wall' to inspire and inform customers of the LDB's commitment to environmental sustainability.

Currently eleven BC Liquor stores and the LDB's head office prominently feature one of these walls and the LDB plans to continue installing them as part of regular renovations.



**LIQUOR
DISTRIBUTION
BRANCH**

To find out more about the LDB's environmental initiatives,
visit bcldb.com

For questions or comments, please contact the LDB at:
604-252-3000 or green@bcldb.com

Part 1: CNAR Survey

1. General Information

Name: Meghan Woods

Contact Email: meghan.woods@bcldb.com

Organization Name: BC Liquor Distribution Branch

Sector: Crown

Role - Please select your role(s) below.

If more than one individual completed the survey, multiple categories may be selected:

Energy Manager: No

Sustainability Coordinator: Yes

Administrative Assistant: No

Facilities/Operations Manager/Coordinator: No

CEO/President/Exec Director: No

Treasurer/Accounting: No

Superintendent: No

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

1. Actions taken by your organization in 2018 to support emissions reductions from buildings.

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

Yes

If yes above, what are the main goals?: Elements of the LDB's strategy to reduce emissions include installation of high-efficiency light fixtures in all LDB facilities, monitor coolers and institute night set back strategy on coolers in BC Liquor Stores, use high insulation cooler walls to mitigate energy loss in BC Liquor Stores, and to ensure increased insulation for roof replacements on owned buildings.

b) Whether you have a strategy or not (1.a), briefly describe your organization's plans to continue reducing emissions from stationary sources:

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

As above.

Additionally, LDB Head Office will be relocating to a LEED Platinum building in 2019, which uses an HVAC system that is 35% more efficient than conventional systems.

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

Perform energy audits as required.

I. What % on average of your building portfolio has an energy audit completed each year (if any)?: 16

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

Continue to invest in high-efficiency LED technology in all LDB facilities, continue to monitor and use best practices for coolers at BC Liquor Stores

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

Minor retrofits (e.g., low cost, easy to implement measures including caulking, lighting, adding roof insulation, etc.) (%): 5

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

Upgrade to energy efficient lighting where minor renovations are undertaken. Based on entire renovation ROI and determining priorities that are site specific.

I. What % on average of your building portfolio do you recommission each year?: 3

f) Do you keep records of Refrigerant gases category and refilling volumes?

No

g) How many newly constructed buildings received at least LEED Gold certification in 2018 : 0

I. How many newly constructed buildings did not receive LEED Gold certification?: 0

II. Please explain why LEED Gold certification was not obtained.

LDB leases most existing sites and LEED Certification would be achievable by the Landlords willingness to invest. LDB does follow best practices and seeks to meet LEED equivalent where feasible

B. Mobile Sources (Vehicles, Off-road/portable Equipment): Fuel Combustion:**3. Actions taken by your organization in 2018 to support emissions reductions from mobile sources.****a) Do you have a strategy to reduce emissions from mobile sources?**

No

b) Whether you have a strategy or not (3.a), briefly describe your organization's plans to continue reducing emissions from mobile sources:

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

Evaluate opportunities for electrification of fleet vehicles and expanded electric vehicle charging at LDB facilities

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

Hybrid vehicle – HEV – non "Plug In"- (e.g., Toyota Highlander Hybrid): 1

Gas/diesel vehicle: 12

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

Vehicles travelling around the province in all conditions. AWD vehicles preferred.

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

level 2: 2

level 3: 0

How many level 2 stations (if any) are specifically for your fleet vehicles: 0

How many level 3 stations (if any) are specifically for your fleet vehicles: 0

4. Please indicate the number of the vehicles in the following vehicle classes that are in your current fleet (including any purchased in 2018):

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)

a) Light duty vehicles (LDVs)

Hybrid vehicles – HEV – (e.g., non “Plug In”- older Toyota Prius, Toyota Camry hybrid): 7

Gas/diesel: 5

b) Light duty trucks (LDTs)

Hybrid vehicles – HEV – (e.g., non “Plug In”- older Ford Escape Hybrid, older Chevrolet Silverado pickup hybrid etc): 12

Gas/diesel: 25

c) Heavy duty vehicles (HDV)

Gas/diesel: 14

5. Please indicate the number of the vehicles you plan to replace in your fleet:

How much do you budget per LDV?: 36000

How many LDVs do you plan to procure annually over the next 5 years?: 3

How much do you budget per LDT?: 40000

How many LDTs do you plan to replace annually over the next 5 years?: 1

How much do you plan to spend per HDV?: 140000

How many HDVs do you plan to replace annually over the next 5 years?: 1

C. Office Paper: Indicate which actions your PSO took in 2018:**6. Actions taken by your organization in 2018 to support emissions reductions from paper supplies.****a) Do you have an Office Paper strategy?**

No

b) Whether you have a strategy or not (6.a), briefly describe your organization's plans to continue reducing emissions from paper use:

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

In our new Head Office location, we will utilize Secure Print – software that will enable improved control over print use thanks to a security mechanism that requires each job to be authorized at the printer site.

c) Have an awareness campaign focused on reducing office paper use

No

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

No

e) Other actions, please specify.

Double-sided printing is default