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This *Carbon Neutral Action Report* for the period January 1st, 2016 to December 31st, 2016 summarizes the Liquor Distribution Branch's (LDB) emissions profile, the total offsets to reach net-zero emissions, the actions the LDB took in 2016 to reduce its greenhouse gas emissions and the LDB's plans to continue reducing emissions in 2017 and beyond.

By June 30, 2017, the LDB's final Carbon Neutral Action Report will be posted at www.bcldb.com.

EXECUTIVE SUMMARY

The British Columbia Liquor Distribution Branch (LDB) has been a leader in sustainable retailing in BC for more than four decades, starting with the beverage alcohol container return program in BC Liquor Stores.

As a public sector organization that works closely with the beverage alcohol industry, as well as a wholesale distributor and retailer with 198 stores across BC, the LDB is able to have a positive influence on the environment beyond its own operations. By connecting with industry partners, our 4,000-plus employees, and reaching out to millions of BC customers, the LDB is proud to promote and inspire sustainable business practices that protect our province – and our planet.

As outlined in the LDB's 2017/18–2019/20 Service Plan, the LDB is committed to reducing the impact of its operations on the environment.

For the seventh consecutive year, the LDB's operations were carbon neutral in 2016. The LDB achieved this by reducing operational greenhouse gas (GHG) emissions and investing in BC-based carbon reduction projects through the BC Ministry of Environment to offset remaining emissions. This is the ninth consecutive year for which the LDB has reported steps it has taken to reduce GHG emissions from its operations.

In addition to supporting carbon neutrality, the LDB adopted a *Waste Reduction and Recycling Strategy* in 2014 and, since then, has been taking action to improve waste diversion in its head office, distribution centres, and BC Liquor Stores. Actions taken in 2016 included improvements to recycling bins and signage in the Vancouver Distribution Centre, improved wood recycling at the Kamloops Distribution Centre, and the adoption of organics recycling at 29 BC Liquor Stores in Metro Vancouver. In 2016, the LDB achieved its targeted 80 per cent recycling rate for its head office and Vancouver Distribution Centre.

As one of BC's largest retailers and a global purchaser of beverage alcohol products, it is both the LDB's duty and privilege to continue building on its legacy of environmental leadership. This report highlights the LDB's ongoing efforts to make its business operations as sustainable as possible.

Blain Lawson

General Manager and Chief Executive Officer

2016 HIGHLIGHTS

Electricity Conservation



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

Responsible Purchasing



96 per cent of office paper purchased contained 100 per cent recycled content. 4 per cent contained either 30 per cent recycled content or was from responsible sources.

Waste Reduction



New BC Liquor Store bags are 8 percent lighter, which saved over 4 tonnes of plastic in 2016 compared to 2015

Recycling



29 BC Liquor Stores in Metro Vancouver introduced organics recycling and are now collecting paper towel and food scraps for composting

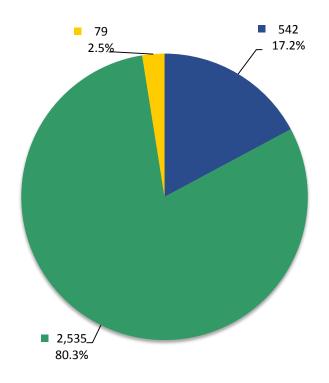
Approximately 2,623 tonnes of cardboard, 160 tonnes of plastic, and 17 tonnes of mixed paper were recycled

2016 GREENHOUSE GAS EMISSIONS AND OFFSETS APPLIED TO BECOME CARBON NEUTRAL

Emissions and Offsets Summary:

Liquor Distribution Branch GHG Emissions and Offset for 2016 (TCO2E) GHG Emissions created in Calendar Year 2016		
Total Offsets (tCO₂e)	3,136	
Adjustments to GHG Emissions Reported in Prior Years:		
Total Emissions (tCO₂e)	0	
Total Offsets (tCO₂e)	0	
Grand Total Offsets for the 2016 Reporting Year		
Grand Total Offsets (tCO₂e)	3,136	

BC LIQUOR DISTRIBUTION BRANCH GREENHOUSE GAS EMISSIONS BY SOURCE FOR THE 2016 CALENDAR YEAR (TCO₂E*)



Total Emissions: 3,156

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

Offsets Applied to Become Carbon Neutral in 2016

Total offsets required: 3,136. Total offset investment: \$78,400. Emissions which do not require offsets: 20 **

^{*}Tonnes of carbon dioxide equivalent (tCO_2e) 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 emissions from the sources listed above must be reported. As outlined in the regulation, some emissions do not require offsets.

Actions Taken to Reduce Greenhouse Gas Emissions in 2016

In 2016, the LDB took steps to reduce emissions from all major sources covered by the *Greenhouse Gas Reduction Targets Act* – vehicle fleet fuel use, paper use and the most significant source of emissions: buildings. In 2016, the LDB's facilities across the province included its head office in Vancouver, 198 retail stores, two wholesale outlets and two distribution centres.

Some of the LDB's GHG reduction activities from 2016 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 will specify energy-efficient requirements, where needed.

Below are examples of energy-efficiency measures taken in BC Liquor Stores in 2016.

- Five BC Liquor Store renovations and construction projects completed in 2016 used efficient LED fixtures for lighting throughout the stores.
 The renovation at Blanshard Square in Victoria made use of natural light by enhancing the skylight in the store (pictured).
- Three renovation projects had entryway vestibules installed and one project had an air curtain installed to create a barrier between indoor and outdoor air.
- All walk-in, rear-loading coldzone coolers installed in 2016 contain equipment that allows for remote monitoring and control for ongoing optimization by Head Office employees, trained in energy-efficiency.



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

• 96 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. This was an improvement compared to 2015 in which only 91 percent of office paper contained 100 per cent post-consumer recycled content.

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 2017 - 2019

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

- The LDB will continue to use efficient LED lighting in BC Liquor Store construction and renovation projects.
- Coldzone cooler installations will continue to be monitored remotely to ensure optimal energy use.
- As the LDB moves its distribution centre operations from Vancouver to a new facility in Delta in 2017/18, it will investigate opportunities to increase energy-efficiency in the new facility.

Conserve more paper

• A new print/scanning/copying service agreement will be signed and implemented in fall 2017. As a part of this agreement, print management software will be installed to monitor print usage. A print management strategy will be introduced at Head Office to reduce printing through employee awareness programs and operational changes.

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 2016

Promoted environmental sustainability through education, awareness and engagement

- In 2016, the LDB's employee-led Green Team took the following steps to promote environmental responsibility at the LDB Head Office and Vancouver Distribution Centre:
 - Hosted lunch time screening of the Vancouver-made documentary film, Just Eat It, at Head Office in order to educate and inspire employees to reduce food waste;
 - Hosted a "lunch and learn" event during which subject-matter experts spoke about energy-efficient LED lighting; and
 - Distributed green iced tea to employees who brought reusable cups to an LDB employee Earth Day celebration event and screened short environmental documentaries.
- BC Liquor Stores 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.



Sustainable transportation encouraged

• Bike to Work Week from May 30-June 5, 2016, was promoted at BC Liquor Stores across BC, the LDB Head Office and the Vancouver Distribution Centre. Food was provided to cyclists who biked to work at the LDB Head Office and the Vancouver Distribution Centre (pictured). Forty-five employees and 15 BC Liquor Stores participated. Participants reported cycling a total of 2,131 kilometers.



Get Home Safe

The LDB'S signature social responsibility program, *Get Home Safe*, promotes responsible beverage alcohol consumption though 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 2016 Vancouver International Wine Festival.



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 2016, the actions listed below were taken to support the strategy:

- The LDB entered into a new contract with a waste/recycling service provider at the Head Office and Vancouver Distribution Centre which requires
 monthly reporting of material weights to calculate annual diversion rates. The weight of garbage, cardboard, soft plastic, organic material, metal, wood,
 mixed containers, paper, Styrofoam and used electronics is now tracked on a monthly basis. In 2016, the LDB achieved a diversion rate of 80% at Head
 Office and Vancouver Distribution Centre.
- In spring 2016, the LDB revamped the recycling program in the Vancouver Distribution Centre by installing signage and colour-coded bins. In 2016, improved wood recycling program was also introduced at the Kamloops Distribution Centre.
- Across BC, the LDB recycled 2,623 tonnes of cardboard, 160 tonnes of plastic, and 17 tonnes of mixed paper.
- The LDB responsibly recycled 108 computer monitors, 115 computers, five laptops, and five servers weighing 2,200 kgs.
- In 2016, the LDB entered into a new waste and recycling service agreement for 29 BC Liquor Store. As a result, an organics recycling program at was introduced to 29 BC Liquor Store locations across Metro Vancouver in July 2016.



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

- BC Liquor Store plastic bags were redesigned and lighter bags which use eight per cent less plastic were introduced in December 2015. Although increased customer traffic meant that 1.4 million more bags were given away in 2016, the LDB still saved 4,400 kg of plastic compared to 2015.
- At the opening of four new and remodeled BC Liquor Stores, reusable bags were given away to the first 500 customers. Reusable bags made from recycled plastic bottles and unbleached cotton (pictured) are sold in stores across BC.
- The LDB determines the weight of all plastic bags, paper bags, flyers, brochures, and magazines
 distributed to customers each year and then pays a recycle fee to Recycle BC to cover the cost of
 collecting these materials for recycling in residential curbside collection programs and return-todepot programs.



BC Liquor Store Customers Do Their Part for the Environment

Customers returned 94 million containers to BC Liquor Stores in 2016. Over 90 per cent of glass liquor bottles and cans sold in BC are returned.



Purchased sustainable products

• A green cleaning system in which environmentally-friendly cleaning products are used was introduced at BC Liquor Stores in fall 2015 and to the Head Office in summer 2016. The system includes eco-friendly chemicals, microfiber cleaning cloths, and a dispensing system for concentrated solutions which prevents overuse of cleaning chemicals.

The LDB Builds Green

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

In 2014, the LDB began to use flooring in BC Liquor Stores which does not require waxing and polishing which reduces chemical use in the stores. Also, a wall base made from bio-based materials and 15% pre-consumer recycled content became the standard in store design.

Six BC Liquor Store renovations and construction projects completed in 2016 used this flooring and wall base.



Sustainability Plans for 2017 - 2019

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

Expand education, awareness and engagement

- The LDB Green Team will continue to host "Lunch and Learn" events and invite speakers to present on topics such as electric vehicle ownership.
- The LDB Green Team will focus on expanding its membership and continue to screen documentary films
- To celebrate Earth Day in 2017, the LDB will announce its 2016/17 diversion rate with cake and hand out reusable cutlery sets to Head Office, Vancouver Distribution Centre, and Kamloops Distribution Centre employees.

Sustainable transportation will be encouraged

• The LDB plans to install two electric car charging stations at Head Office.

Other actions to reduce waste

Starting in 2017, the LDB will begin consolidating and negotiating BC Liquor Store waste and recycling
contracts to ensure that BC Liquor Stores receive the best price/service and increase the availability of
recycling.





To find out more about how the LDB is leading the beverage alcohol industry on implementing sustainability initiatives, visit bcldb.com

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