



EXECUTIVE SUMMARY

DECLARATION STATEMENT:

This Carbon Neutral Action Report for the period January 1, 2017 to December 31, 2017 summarizes BC Pavilion Corporation's (PavCo) emissions profile, the total offsets to reach net-zero emissions, the actions taken in 2017 to reduce its greenhouse gas emissions and plans to continue reducing emissions in 2018 and beyond.

By June 30, 2018, PavCo's final *Carbon Neutral Action Report* will be posted to its website at www.bcpavco.com.

BC Pavilion Corporation is a Provincial Crown Corporation with a mandate to generate economic and community benefit for the people of British Columbia through the prudent management of public facilities. PavCo owns and operates two world-class public facilities located in downtown Vancouver: BC Place and the Vancouver Convention Centre. During the calendar year 2017, PavCo reported to the Ministry of Tourism, Arts and Culture.

PAVCO'S MANDATE

To generate economic and community benefit for the people of British Columbia through prudent management of public facilities.

PAVCO'S FACILITIES

BC Place is one of the most technologically advanced stadiums in the world. It boasts a cutting-edge spectrum of customizable features, such as high definition video displays, interior temperature control, incredible acoustics, retractable seating, and a FIFA 2-Star rated playing surface.

The Vancouver Convention Centre consists of two uniquely designed buildings, the iconic East building and stunning West building, the world's first double LEED® Platinum certified convention facility. The Convention Centre is designed with the latest environmentally sustainable features and technology, including a six-acre "living roof", a marine habitat and an on-site Blackwater Treatment Plant, and is committed to operating in an environmentally sustainable manner.

Together, BC Place and the Vancouver Convention Centre generates in excess of \$450 million in economic benefit for the province annually. These important venues attract thousands of people every year to the province, economically supporting the tourism and hospitality industries, as well as trade development.

PAVCO'S VISION

To be the global leader in outstanding venues and events.

PAVCO'S VALUES

- Quality and Service
- Respect, Fairness and Honest Communication
- Financial Responsibility
- Creativity and Innovation
- Enthusiasm
- Environmental Responsibility, Integrity

OVERVIEW

Over the past year, BC Place started a process to switch several lighting systems to more efficient LED fixtures and advanced lighting control technology. In HVAC, infrastructure has been installed to implement Low Carbon Energy (LCE) heat pump systems, which incorporate heat recovery between different heating and cooling zones. This is an ongoing project, which will have incremental additions and result in heat recovered from electrical and data rooms to heat office spaces. The switch to LCE

technologies will continue in 2018 and beyond. Upcoming projects will include: DHW system upgrade, heat recovery from large electrical rooms, stadium-wide sub-meter installation to manage electrical loads, several LED upgrades including the Field-of-Play lighting system. Over the upcoming years, BC Place is also exploring opportunities to upgrade the stadium heating system, which is the largest contributor to the stadium GHG emissions.

In 2017, the Convention Centre's West building was awarded LEED Platinum certification (version 4) for Existing Buildings: Operations and Maintenance by the Canada Green Building Council. Coupled with its 2010 Platinum certification for New Construction, the Vancouver Convention Centre is the first double LEED Platinum convention centre in the world.

The Convention Centre also continued to upgrade its lighting systems to LED fittings and install variable speed drives on motors driving pumps and fans. Changes were made to the way the facility operates its Central Plant at the end of 2017 in order to reduce electricity consumption. The electrical and mechanical submetering system was expanded, allowing the facility to target areas and particular event activations for energy saving measures. Efficiency upgrades to its Blackwater Treatment Plant have resulted in the facility further reducing its reliance on municipal water supplies.

BC Pavilion Corporation GHG Emissions and Offsets for 2017 (tCO₂e) GHG Emissions created in Calendar Year 2017				
Total Offsets (tCO₂e)	3,936			
Adjustments to GHG Emissions Repo	rted in Prior Years			
Total Emissions (tCO₂e)	10			
Total Offsets (tCO ₂ e)	10			
Grand Total Offsets for the 2017 Repo	orting Year			
Grand Total Offsets (tCO₂e)	3,946			

RETIREMENT OF OFFSETS:

In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, PavCo (**the Organization**) is responsible for arranging for the retirement of the offsets obligation reported above for the 2017 calendar year, together with any adjustments reported for past calendar years. The Organization hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy 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:			
		JU~E	1254 2018
Signature		Date	
REHANA	DIN	CHIEF	FINANCIAL OFFICER
Name (please print)		Title	

Part 1: CNAR Survey

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1. General Information

Name: Mandy Gale

Contact Email: mgale@vacncouverconventioncentre.com

Organization Name: BC Pavilion Corporation

Sector: Crown

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

During 2017, did your organization take any of the following actions to support emissions reductions from buildings? (please select all that apply)

None of the above

If you selected "Performed energy retrofits of the organization's building(s)":

How many buildings were retrofitted?:

If you selected "Built, or are building new LEED Gold or other "Green" buildings":

How many new "Green" buildings?:

Did your Organization perform any retrofits during 2017? Please describe briefly:

2a. Stationary Sources (eg. Buildings, Power Generators): Fuel Combustion, Electricity use, Fugitive Emissions.

2a. Stationary Sources (eg. Buildings, Power Generators): Fuel Combustion, Electricity use, Fugitive Emissions.

Please briefly describe your organization's plans to continue reducing emmissions from its stationary sources:

a) Over the next 1-5 years

Vancouver Convention Centre is replacing existing metal halide lighting with LED fittings, installing Variable Speed Drives on HVAC equipment and changing the operating philosophy of the buildings HVAC systems to reduce energy consumption.

BC Place is replacing existing metal halide and linear fluorescent lighting with LED fittings. Installing low temperature water source heat pump systems for HVAC. Upgrading steam supplied DHW and HVAC systems with sustainable alternatives.

b) Over the following 6-10 years

Capital replacement of end of life and inefficient HVAC and Mechanical systems will result in reduced energy consumption

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

During 2017, did your organization take any of the following actions to support emission reductions from its mobile sources? (please select all that apply)

None of the above

If you selected "Replaced existing vehicles with more fuel efficient vehicles (gas/diesel)":

How many vehicles?:

If you selected "Replaced existing vehicles with hybrid or electric vehicles":

How many vehicles?:

3a. Mobile Sources (Vehicles, Off-road/portable Equipment): Fuel Combustion:

Please briefly describe your organization's plans to continue reducing emissions from its mobile sources:

a) Over the next 1-5 years

Invest in electric forklifts as existing stock of propane ones approach end of life

b) Over the following 6-10 years

Continue to replace propane driven equipment with electric units

4. Supplies (Paper): Indicate which actions your PSO took in 2017:

During 2017, did your organization take any of the following actions to support emissions reductions from paper supplies? (please select all the apply)

Had an awareness campaign focused on reducing office paper use; Had a policy requiring the purchase of recycled content paper

If you selected "Had a policy requiring the purchase of recycled content paper":

State the required recycled content here (30%, 50%, 100%): 60

If you selected "Had a policy requiring the purchase of alternate source paper (bamboo, hemp, wheat, etc)", which type of alternate source paper did you use?

Please briefly describe your organization's plans to continue reducing emissions associated with its office paper use in future years.

Improved reporting on paper usage per individual and department. Ensuring all paper purchased is 100% post consumer recycled content. Improved usage of technology during meetings rather than paper reports

5. Other Sustainability Actions

a) Business Travel

During 2017, did your organization take any of the following actions to support emissions reductions from business travel? (please select all that apply)

None of the above

b) Education/Awareness

During 2017, did your organization have any of the following programs or initiatives to support sustainability education and awareness? (please select all that apply)

A Green, Sustainability or Climate Action Team; Support for professional development on sustainability (e.g. workshops, conferences, training); Supported or provided education to staff about the science of climate change, conservation of water, energy and/or raw materials

c) Other Sustainability Actions

During 2017, did your organization have any of the following programs or initiatives to support sustainability? (please select all that apply)

A water conservation strategy which may include a plan or policy for replacing water fixtures with efficient models; An operations policy or program to facilitate the reduction and diversion of building occupant waste (e.g., composting, collection of plastics, batteries) from landfills or incineration facilities; Green procurement standards for goods (e.g., office furniture, etc.)