

2018

Carbon Neutral Action Report



BC PAVILION CORPORATION

EXECUTIVE SUMMARY

DECLARATION STATEMENT:

This Carbon Neutral Action Report for the period January 1, 2018 to December 31, 2018 summarizes BC Pavilion Corporation's (PavCo) emissions profile, the total offsets to reach net-zero emissions, the actions taken in 2018 to reduce its greenhouse gas emissions and plans to continue reducing emissions in 2019 and beyond.

By June 30, 2019, 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 2018, 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 has continued to switch several lighting systems to more efficient LED fixtures and advanced lighting control technology. The sports lighting for the Field of Play was the largest single electrical load at the facility. This lighting system has been upgraded to an energy efficient LED system with several additional non-energy benefits such as light quality for high definition broadcasting. In HVAC, several heating and cooling systems were re-commissioned which resulted in

substantial energy savings. As part of a Low Carbon Energy (LCE) initiative, heat pump loops were re-commissioned to optimize heat recovery between heating and cooling zones.

Upcoming projects for 2019 will include: Domestic hot water system upgrades for the team locker rooms incorporating condensate heat recovery, stadium-wide sub-meter installation to manage electrical loads, additional LED upgrades. Within 2019, BC Place is also exploring options to upgrade the stadium heating system and mobile equipment fleet, which make up a large contribution to the corporation GHG emissions. This will include an economic analysis of Low Carbon alternatives.

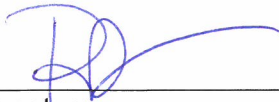
The Convention Centre continues to upgrade its lighting systems to LED fittings, and has installed variable speed drives on the 5 remaining Air Handling Units that were previously operating at fixed speeds. Data centre cooling systems were also upgraded to operate on a refrigerant backup system so that our Central Plant and Seawater Pumps can be shutdown overnight. Over the coming years the Convention Centre will continue upgrading its lighting systems to LED, transition a portion of its gas supply to renewable natural gas, install photovoltaic solar panels on its roof, and use heat pump technology to preheat cold water and reduce GHG emissions from steam in order to provide domestic hot water.

| BC Pavilion Corporation GHG Emissions and Offset for 2018 (tCO₂e) | |
|---|----------|
| GHG Emissions created in Calendar Year 2018: | |
| Total Emissions (tCO ₂ e) | 3,752 |
| Total BioCO ₂ | 1.04 |
| Total Offsets (tCO ₂ e) | 3751 |
| Adjustments to GHG Emissions Reported in Prior Years: | |
| Total Emissions (tCO ₂ e) | 11 |
| Total Offsets (tCO ₂ e) | 11 |
| Grand Total Offsets for the 2018 Reporting Year: | |
| Grand Total Offsets Required (tCO ₂ e) | 3,762 |
| Total Offset Investment | \$94,050 |

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 2018 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:

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|  | |
| Signature | Date |
| | May 29, 2019 |
| Rehana Din | |
| Name (please print) | Title |
| | CEO |