JUSTICE INSTITUTE of BRITISH COLUMBIA

2021 Climate Change Accountability Report

May 20, 2022

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PART 1. Legislative Reporting Requirements

Declaration Statement

This Climate Change Accountability Report for the period January 1, 2021, to December 31, 2021, summarizes the Justice Institute of British Columbia's (JIBC) emissions profile, total offsets to reach net-zero emissions, actions undertaken in 2021 to reduce greenhouse gas emissions (GHG), and plans to continue reducing emissions in 2022 and beyond.

By June 30, 2022, the 2021 Climate Change Accountability Report will be posted on JIBC's website at www.jibc.ca

Overview

JIBC is Canada's leading public safety educator, a dynamic post-secondary institution recognized nationally and internationally for innovative education in justice and public safety. JIBC offers a range of applied and academic programs (certificates, diplomas, and degrees) that span the spectrum of safety, from prevention to response and recovery. JIBC has six campuses in British Columbia, located in New Westminster, Maple Ridge, Pitt Meadows, Chilliwack, Victoria, and the Okanagan.

JIBC is committed to reducing its carbon footprint and improving sustainability through environmentally responsible practices. Since 2008 JIBC has implemented operational changes resulting in significant reductions in energy consumption. Energy consumption is monitored at all campuses to identify usage trends and ensure buildings operate at optimal conditions for the season. Tracking energy usage allows JIBC to gauge the effectiveness of energy-efficiency strategies designed to achieve carbon neutrality by reducing GHG emissions.

JIBC participates in BC Hydro's Energy Manager Associate Program. The program assists JIBC with developing its strategic energy management plan to support the Institute's commitment to energy efficiency and conservation by providing a framework for reducing energy consumption and its associated environmental impact.

Due to the COVID-19 pandemic, JIBC campuses continued to operate at reduced capacity, with most onsite activities resuming in September 2021. The reduction in onsite activity resulted in less energy usage, waste, and recycling. Paper usage and fleet travel remained low throughout the year due to most staff working off-campus utilizing online solutions.

Emission Reductions: Actions & Plans

Stationary Sources

In 2021 JIBC undertook the following projects to reduce GHG emissions:

- Installed a new water bottle filling station at the New Westminster campus;
- Retrofit downlighting to LED, including fixture replacement at the New Westminster campus;
- Replaced air handling units at the end of their useful life with more efficient types at the Maple Ridge campus;
- Implemented holiday closure schedules over the winter break at all campuses; and
- Participated in BC Hydro's Energy Network Program and engaged staff with a Holiday Shutdown Campaign to encourage behavioural change.

Potential projects to further reduce GHG emissions in 2022 and beyond include:

- Retrofit remaining lighting to LED, including fixture replacement and addition of motion sensors at the Maple Ridge campus;
- Replace the glass roof in the atrium at the New Westminster campus;
- Replace original circulation pumps in the water treatment plant system with high-efficiency types of equipment with variable speed drives at the Maple Ridge campus;
- Add destratification fans to the gymnasium in the main building and gym areas of the New Westminster campus;
- Add variable speed drives to chilled water pumps at the New Westminster campus;
- Replace server room(s) heat pumps with more efficient units at the New Westminster campus;
- Replace existing air handling units serving administration, classroom, and fitness trailer buildings with more efficient units at the Maple Ridge campus;
- Install photovoltaic (PV) solar panels for electrical savings at the New Westminster campus;
- Implement additional virtual servers to replace physical servers;
- Upgrade network switches to energy-efficient types;
- Refresh desktops to remove older, less energy-efficient computers;

- Participate in the STARS program – Sustainability Tracking and Assessment Rating System administered by the Association for the Advancement of Sustainability in Higher Education;
- Participate in BC Hydro's Energy Manager Program to support the strategic approach to energy management and organizational change to reduce energy waste, and costs, and improve energy efficiency; and
- Participate in BC Hydro's Energy Wise Network Program to conduct behavioural change programs.

Mobile Sources

Potential projects to further reduce GHG emissions in 2022 and beyond include:

- Replace older fleet vehicles with more fuel-efficient and/or electric vehicles; and
- Install charging stations for fleet electric vehicle charging.

Paper Consumption

Potential projects to further reduce GHG emissions in 2022 and beyond include:

- Review administrative processes using Lean methodology to reduce unnecessary paper-based filing and forms; and
- Implement personal printing account program to raise individual staff awareness of printing and copying habits.

2021 GHG Emissions and Offset Summary Table

In accordance with the Carbon Neutral Government Regulation, JIBC activities generating direct and indirect greenhouse gas emissions were recorded throughout the calendar year. In 2021, JIBC realized direct and indirect greenhouse gas emissions measured in tonnes per carbon dioxide equivalent (tCO2e) in the categories of mobile fuel combustion, stationary fuel combustion, purchased energy and office paper.

JIBC 2021 GHG Emissions and Offsets	
GHG Emissions created in Calendar Year 2021	
Total Emissions (tCO_2e)	573
Total $BioCO_2$	2
Total Offsets (tCO_2e)	571
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO_2e)	0
Grand Total Offsets for the 2021 Reporting Year	
Grand Total Offsets (tCO_2e) to be Retired for 2021 Reporting Year	571
Offset Investment ($25 per tCO_2e)	$14,275

Retirement of Offsets

In accordance with the requirements of the Climate Change Accountability Act and Carbon Neutral Government Regulation, JIBC is responsible for arranging for the retirement of the offset obligation reported above for the 2021 calendar year, together with any adjustments reported for past calendar years. JIBC hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy (the Ministry) ensuring that these offsets are retired on JIBC's behalf, JIBC 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.

PART 2. Public Sector Leadership

Climate Risk Management

In 2021 JIBC undertook the following projects to manage risk related to climate change:

- Rebuilt and improved drainage in areas at the Maple Ridge campus to manage extreme mountain runoff associated with a historic rainfall event.

Potential projects to manage risk related to the changing climate in 2022 and beyond include:

- Conduct a wildfire risk assessment for the Maple Ridge campus and develop a response plan.

Other Sustainability Initiatives

Initiatives undertaken by JIBC to support sustainability in general include:

- A battery recycling collection and pickup program.

While JIBC is not required to report GHG emissions resulting from travel, potential projects to further reduce emissions in 2022 and beyond include:

- Engage with travel booking agency to receive GHG emission reporting for flight bookings.

Success Stories

In March of 2021, JIBC replaced the downlights with LED fixtures on the second and third floors of the administration area at the New Westminster campus. This lighting upgrade project should result in annual reductions in energy consumption of 24,651kWh based on the typical operating hours of campuses over the calendar year. The new lighting system is also projected to reduce peak demand by 4.5kw. Together, these actions will result in reduced annual energy costs of $3,500 with a return on investment of 2.4 years.

Executive Sign-off

Original signed	May 30, 2022
Signature	Date
Mike Proud	Vice President, Finance and Operations
Name (please print)	Title