

Title: 2022 PSO Climate Change Accountability Report

Organization: *British Columbia Institute of Technology*

PART 1. Legislative Reporting Requirements

Declaration statement: This PSO Climate Change Accountability Report for the period January 1, 2022 to December 31, 2022 summarizes our greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2022 to minimize our GHG emissions, and our plans to continue reducing emissions in 2023 and beyond.

Emission Reductions: Actions & Plans

A. Stationary Sources (e.g. buildings, power generation)

In 2022, BCIT undertook a campus level decarbonization study project where a detailed implementation plan has been created for BCIT to meet its near-term and long-term GHG reduction targets. Below describes the two main areas for GHG reduction.

- *Capital projects*

- *All major retrofit and deep retrofits projects consider energy efficiency and decarbonization opportunities. For example, when a rooftop unit reaches the end of its service life, an electric heat pump option will be considered first.*
- *New construction projects consider low carbon energy sources first, and will aim to meet the Passive House standard to minimize future energy inputs.*
- *Planned replacement of inefficient district heating gas boilers with a primary electric boiler in 2024 will significantly reduce GHGs from the eight buildings on the district system.*

- *Operational opportunities*

- *Ensure building automation systems are operating to peak capabilities. For example, ensure that all motion sensors are working properly and are setting HVAC equipment back when no occupancies are detected.*
- *Implement fault detection and diagnostic software to better track the performance of equipment. This will allow us to catch broken equipment more quickly such as passing valves, overridden variables, equipment running outside of schedule, etc.*

Additionally, BCIT has continued ongoing initiatives to reduce greenhouse gas emissions, such as heat recovery projects, building recommissioning, lighting upgrades, and extending seasonal setbacks of unoccupied buildings.

B. Mobile Sources (e.g. fleet vehicles, off-road/portable equipment)

50% of BCIT's fleet is already made up of zero emission vehicles. As existing vehicles reach the end of their service life, BCIT plans to replace them with electric vehicles where available.

The design of a new campus service center building commenced in 2022. Adequate charging infrastructure will be taken into consideration in the new design.

We are exploring new strategies for reducing staff and faculty travel related emissions, such as having educational resources, prompts, emission calculators, decision support, and incentives linked with our institutional professional development funds. We have also conducted research into broader travel emissions policies and will explore next steps later this year.

C. Paper Consumption

BCIT already uses sugar sheet for all white 8.5" x 11" paper, which make up over 95% of our total paper usage. Currently there is no active paper usage reduction campaign as many staff and students continue to work from home.

2022 GHG Emissions and Offsets Summary Table

British Columbia Institute of Technology 2022 GHG Emissions and Offsets Summary	
GHG emissions for the period January 1 - December 31, 2022	
Total BioCO ₂	3.57
Total Emissions (tCO ₂ e)	7428
Total Offsets (tCO ₂ e)	7424
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO ₂ e)	0
Grand Total Offsets for the 2022 Reporting Year	
Grand Total Offsets to be Retired for 2022 Reporting Year (tCO ₂ e)	7424
Offset Investment (\$)	\$185,600

Retirement of Offsets:

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, **British Columbia Institute of Technology (the Organization)** is responsible for arranging for the retirement of the offsets obligation reported above for the 2022 calendar year, together with any adjustments reported for past calendar years (if applicable). The Organization hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy (**the Ministry**) 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.

PART 2. Public Sector Climate Leadership

2A. Climate Risk Management

BCIT has considered climate risk assessments in new construction projects. Overheating concerns have been taken into consideration for HVAC design and equipment sizing. The BCIT Enterprise Risk Management group has been identified as the owner of climate risks. Further discussion on defining specific climate risks and identifying required actions started in 2022.

2B. Other Sustainability Initiatives

Sustainability Policy 1010 lays out seven broad goals that include energy, GHGs, and waste.

The Green Team is involved in all aspects of sustainability from a grassroots level, leading staff and student engagement campaigns and events.

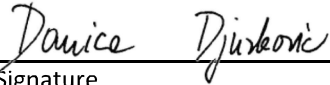
BCIT has a robust waste management program where we strive for higher diversion rates.

BCIT is a leader in EV charger infrastructure. The new Health Sciences Centre houses 60 new level two EV chargers.

2C. Success Stories

In 2022, we completed a server room heat recovery project at our downtown Vancouver campus, resulting in a 30% reduction in the building's GHG emissions.

Executive Sign-off:


Signature

31 May 2023

Date

Danica Djurkovic
Name (please print)

VP Campus Planning and Facilities BCIT
Title

[Please email your signed report to Carbon.Neutral@gov.bc.ca by no later than May 31, 2023]

