



2023

# Carbon Neutral Action Report

Okanagan  
College





# 2022 PSO Climate Change Accountability Report

## Okanagan College

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### 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 reduce our GHG emissions, and our plans to continue reducing emissions in 2023 and beyond.

#### Overview

Okanagan College continues to develop and enhance its focus on sustainability from the perspective of an organization with responsibility for education, training, and community development.

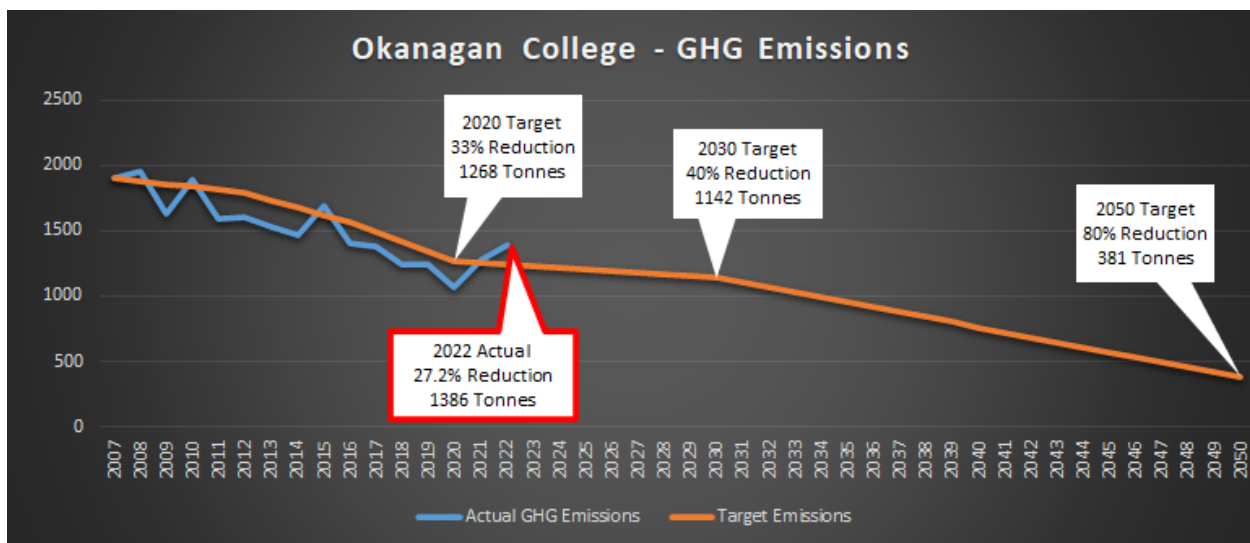
While the effects of the COVID-19 pandemic restrictions compelled Okanagan College to shift away from normal operating practices in 2020, two years later Okanagan College continues to transform our operations to reflect some of the changes brought about by the pandemic. We telecommute more, print less and are also far more flexible in office arrangements to allow for better space utilization.





Some of these related emissions reductions (such as reduced commuting) are not tracked as part of the provincial carbon neutral program but are still considered significant climate victories for our community.

The quest for improvement is ongoing. The institution has established a goal to exceed the provincially mandated Bill 44 targets for carbon emissions with an annual carbon emission reduction of 80 tons per year. We were managing to stay ahead of that pace and reached the original Provincial 2020 target by 2018, however, the last two winters have provided longer than usual cold snaps which have driven our heating related emissions up significantly. This illustrates the importance of decarbonizing our heating systems wherever possible.



## Emissions Reductions: Actions and Plans

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

**Student Housing Projects** - There were three student housing projects on the go in 2022, one was under construction and the other two saw their design completed so that construction could begin in early 2023. All three projects are designed to meet BC Step Code 4 which will align well with our carbon reduction plans.







All the construction projects we engage in provide us with the infrastructure and opportunity to share construction best practices with our students and the communities we serve.

The College plans to continue to leverage the technology, passion, and creativity inherent in these buildings in

order to be an agent of change for the larger community. We draw on the interests and expertise of staff and students to advance our intentions regarding sustainability and carbon reduction.



The College also managed to secure funding from FortisBC to hire an energy Analyst. This partnership is specifically intended to identify energy reduction opportunities as well as help develop and implement an institutional 'Carbon Zero' action plan. The analyst was hired in December 2022 with the intent to renew funding support for as long as the program lasts. Deep energy audits of our most energy intensive buildings is set begin this summer which should help us significantly lower our GHG emissions.

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

**Fleet Electrification.** – Okanagan College took some major strides in reducing our mobile emissions. We continue to participate in the provincial 'Go Electric Fleets' program and replaced other aging fleet vehicles with plug-in electric vehicles, increasing our fleet of bookable EV's to three. These vehicles are available for all staff to reserve for intercampus travel. With a range of 400 km, range anxiety has not been a challenge while feedback has been all positive and utilization is steadily



increasing. An online booking system is under development and will be implemented in 2023 which should increase usage even further. There is a desire to add a 4<sup>th</sup> EV in the form of a truck or delivery van, but supply chain issues continue to be a challenge and may force the College to wait until 2024.



### C. Paper Consumption

**Printing** - The pandemic driven push to a more digital operating model has allowed us to get comfortable reducing our printing habits which has led to a decrease in individual printing. This is offset somewhat by an increased volume at our print center in the form of contract printing for other organizations to take advantage of the new capacity freed up by lower internal demand.

### 2022 GHG Emissions and Offset Summary Table:

Okanagan College 2022 GHG Emissions and Offsets Summary	
<b>GHG emissions for the period January 1 - December 31, 2022</b>	
<i>[See <a href="#">Appendix 1</a> for instructions on how to access your 2022 emissions data from CGRT. Cells A and B below are identified in <a href="#">Figure 1</a>; cells C and D are identified in <a href="#">Figure 2</a>.]</i>	
Total BioCO <sub>2</sub>	1.18
Total Emissions (tCO <sub>2</sub> e)	1387
Total Offsets (tCO <sub>2</sub> e)	1386
<b>Adjustments to Offset Required GHG Emissions Reported in Prior Years</b>	
Total Offsets Adjustment (tCO <sub>2</sub> e)	0
<b>Grand Total Offsets for the 2022 Reporting Year</b>	
Grand Total Offsets to be Retired for 2022 Reporting Year (tCO <sub>2</sub> e) <i>[must round to a whole number (no decimal places)]</i>	1386
Offset Investment (\$) <i>[Grand Total Offsets to be Retired for 2022 Reporting Year x \$25 per tCO<sub>2</sub>e]</i>	\$34,650





## Retirement of Offsets:

In accordance with the requirements of the Climate Change Accountability Act and Carbon Neutral Government Regulation, **Okanagan College** (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 Leadership

### A. Climate Risk Management

Similar to 2021, unusual weather events factored heavily in our 2022 operations. Extended heat waves highlighted some limitations in several cooling systems. Strategic replacements for some systems and deeper assessments for others are now underway. Heavy rain and wind events also challenged some of our buildings and storm drainage systems which has led to some upgrading projects in 2023.

The unusual events which sometimes caught us off-guard in 2021 and 2022 have become key information as we begin a detailed climate risk assessment to be undertaken in 2023.

### B. Other Sustainability Initiatives & Success Stories

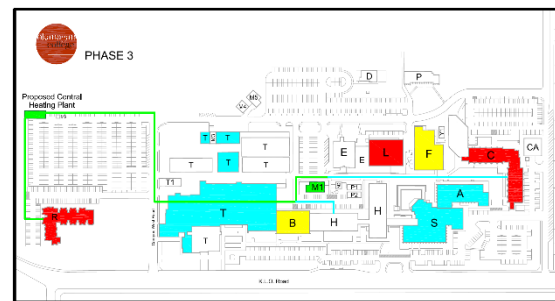
While our overall GHG reduction progress is comforting, the Paris Accord and follow-up 2018 report from the IPCC (Intergovernmental Panel on Climate Change) have illustrated that there is a global need for more ambitious targets. This point was further driven by the abnormal weather events in 2021 and 2022. This new reality in the driving force behind the development of our carbon zero plan. While the plan will initially focus on reducing scope 1 and 2 emissions, tackling the significant scope 3 emissions such as from commuting, purchasing and waste management will not be overlooked. The intent of the plan will be to reduce our emissions while ensuring we impart a





culture of sustainability into the entire college population and the communities we serve. This plan will be designed to also align with the United Nations Sustainable Development Goals.


The first phase of this plan was driven by the pursuit of the Carbon Zero designation for the new Health Sciences Centre which required us to develop a strategic “Zero Carbon Transition Plan” for the entire Kelowna campus. This includes energy reduction strategies, deep energy retrofits to some of our older buildings as well as an expansion of the central heat pump plant which uses treated effluent from the neighboring wastewater treatment plant as the heat source. The overall infrastructure plan is intended to be staged over a decade and expand to include all campuses, taking advantage of any infrastructure changes, partnerships, and funding opportunities as they materialize. When fully implemented this plan will account for a GHG reduction of approximately 65% of baseline emissions, which would be a big step towards the mandated 80% reduction by the year 2050.



### C. Other Sustainability Initiatives & Success Stories

One of the biggest success stories in 2022 was certainly the pursuit of BC Energy Step Code 4 on the three student housing projects. While this was the intent for the projects from the beginning, once the designs were completed and priced, the expected costs far exceeded the available funding. While the temptation to sacrifice some of the energy efficient design to meet budgets was strong, the construction team was able to resist and through resolve and creativity was able to find a design and project delivery model to get the projects on track without sacrificing the environmental features which are so important to Okanagan College and the communities we serve.

### Executive sign-off:

  
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**Signature**

Neil Fassina  
\_\_\_\_\_  
**Name**

June 10, 2013  
\_\_\_\_\_  
**Date**

President  
\_\_\_\_\_  
**Title**

