

# 2021 PSO Climate Change Accountability Report



Projects that support  
the well-being of our  
ecosystems.

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UNIVERSITY  
OF THE FRASER VALLEY

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## Declaration Statement

This PSO Climate Change Accountability Report for the period January 1, 2021 to December 31, 2021 summarizes our greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2021 to reduce our GHG emissions, and our plans to continue reducing emissions in 2022 and beyond.

By June 30, 2022 the University of the Fraser Valley's final 2021 Climate Change Accountability Report will be posted to our website at <https://www.ufv.ca/energy/energy-reports/>.

## Our Acknowledgment

The University of the Fraser Valley is situated on S'olh Temexw, the traditional lands of the Stó:lō peoples. We are grateful to be able to work, learn and play on these traditional lands that have been kept pristine for thousands of years. To honour this relationship and in the spirit of reconciliation, the Office of Sustainability (OoS) works to contribute to this legacy by caring for our environment and its ecosystems.

## Overview

### Actions taken in 2021 to minimize emissions

The carbon footprint for the University of the Fraser Valley registered at **2,210** tCO<sub>2</sub>e in 2021. UFV has continued to reduce its carbon emissions, recording a **29%** overall reduction in total carbon emission from 2009 to 2021.

In 2021, the University continued to implement projects that support our efforts to minimize emissions, these included:

Project Description	Campus / Building(s)
The development of a Green Events Checklist & Certification Program aimed at reducing the environmental impact of campus held events.	All buildings
Completion of the PV Solar project generating 104 MWh of electricity in 2021 (17% of the electricity used by the building).	Abbotsford building E
Envelope upgrades including the replacement of the building cladding (EIFS), doors and windows with a new energy efficient envelope.	Abbotsford building A-East
Addition of CO <sub>2</sub> sensors on air handling equipment with recirculated air. This increases the opportunity for increased use of fresh air and free cooling.	Abbotsford buildings A East, A West, B, D, G Canada Education Park building T

Project Description	Campus / Building(s)
Carpentry dust collector upgrades that included the installation of a variable frequency drive to reduce the need of the building reheat unit and improve the indoor air quality of the carpentry shop.	Trades and Technology Centre
Domestic hot water system upgrades that include high efficiency heater retrofits.	Abbotsford building H
Make-up air unit upgrades.	Abbotsford building E

In 2021, UFV participated in the FortisBC Energy Specialist Program as well as the BC Hydro and FortisBC led Energy Wise Network. Both programs look to help organizations foster a culture of strategic energy and carbon management within the organization.

### Plans to continue reducing emissions in 2021 and beyond

This year (2021) marks an important milestone in the University’s sustainability journey with the establishment of the Office of Sustainability (OoS). Now with permanent staff solely focused on this work, the OoS has propelled sustainability forward at UFV and aims to make sustainability a priority, empowering departments to champion efforts in their areas of expertise.

*“Recent climate events in the Fraser Valley and the increased visibility of racism and human rights issues across North America have increased awareness of sustainability issues locally. As such, more people than ever are seeking out opportunities to support UFV’s social, economic, and environmental sustainability initiatives.”*  
**Jennifer Martel – Sustainability Coordinator**

This new commitment includes the alignment of UFV’s sustainability efforts to the United Nation’s 17

Sustainability Development Goals. The University’s soon to be released 2020/21 Sustainability Report outlines both what UFV has done to date and plans going forward to support this alignment.

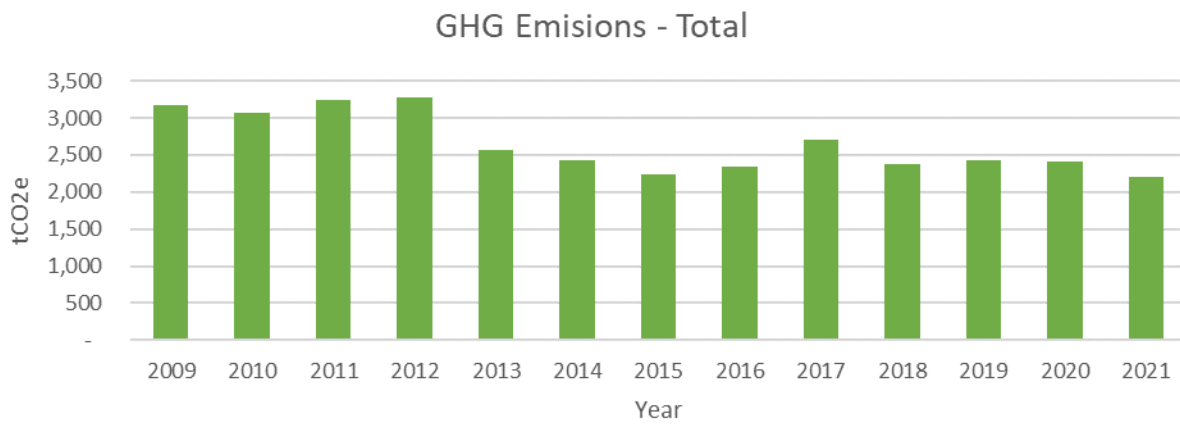
A suite of energy management and carbon mitigation projects are also planned for in the coming years. These include:

Project Description	Campus / Building(s)
Completion of engineering designs for a domestic hot water pre-heat solar thermal system. Installation is anticipated for 2022.	Abbotsford building H
Engineering analysis underway for a Gas Absorption Heat Pump pilot	Canada Education Park building T
Construction of a new student housing project to Energy Step Code 4	Abbotsford Campus
Heat pump analysis	Abbotsford building B
Analysis of a campus wide district energy and heat recovery project	Abbotsford Campus
Installation of electric vehicle charging stations to be completed in the summer of 2022	Abbotsford buildings A (2x dual chargers) Abbotsford buildings E (1x dual chargers)

# Total GHG Emissions

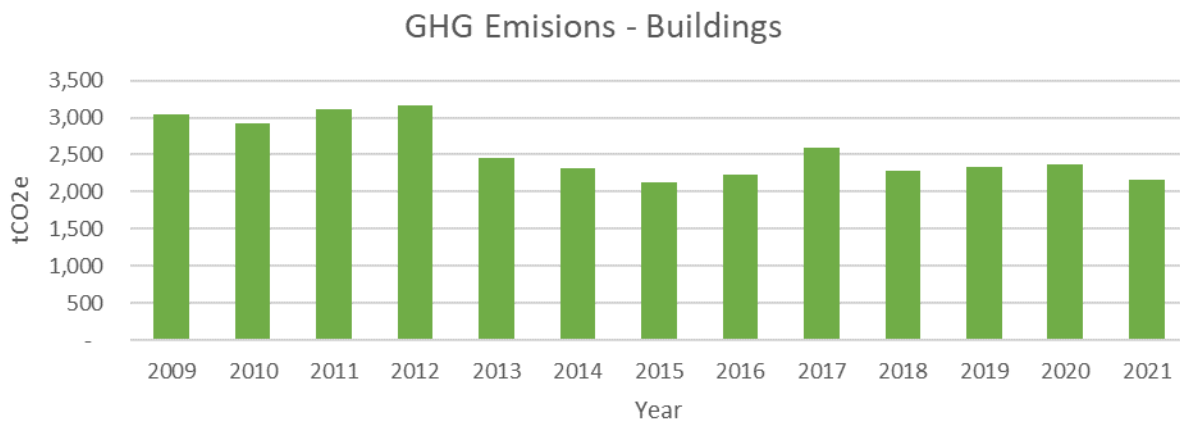
In 2021, UFV's total GHG emissions were **2,210** tonnes of CO<sub>2</sub> equivalent. UFV has continued to reduce its carbon emissions, recording a **29%** overall reduction in total carbon emission from 2009.

- Natural gas and electricity used in buildings make up: **98% of our GHG emissions**
- Fleet combustion: **1.5%**
- Paper consumption: **0.5%**



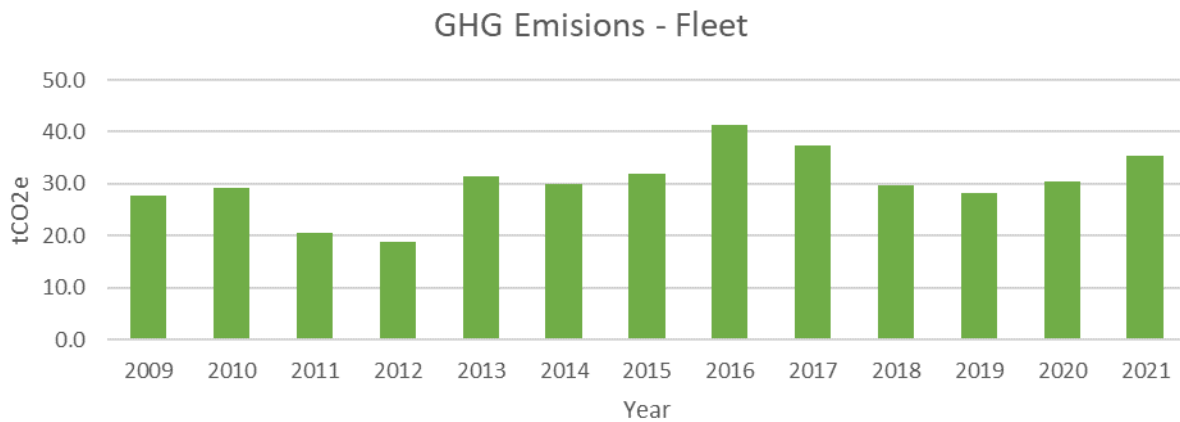
# Buildings Emissions

In 2021, UFV achieved an 8% reduction in building emissions compared with 2020, and a 30% reduction compared with their 2009 baseline.



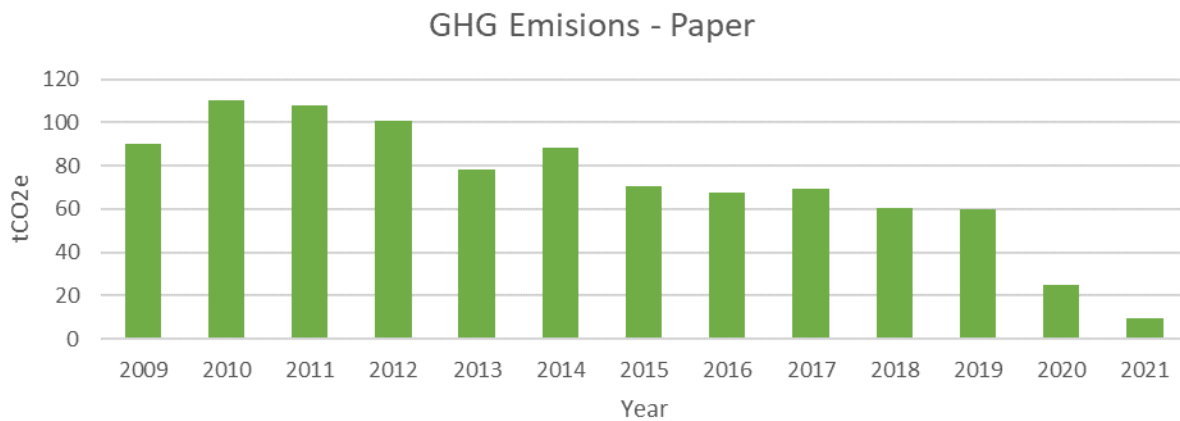
## Campus Fleet

In 2021, UFV's fleet emissions increased by 15% compared with 2020, and increased by 27% compared with their 2009 baseline. This increase was mainly the result of taking on courier services internally that were formerly outsourced to contractors.



## Office Paper Purchasing

In 2021, UFV achieved a 62% reduction in emissions related to office paper use compared with 2020, and a 90% reduction compared with their 2009 baseline. This was achieved through ongoing efforts to digitize formerly printed documents and student resources.



# Emissions and Offset Summary Table

## University of the Fraser Valley 2021 GHG Emissions and Offsets

GHG Emissions created in Calendar Year 2021	
Total Emissions (tCO <sub>2</sub> e)	2,210
Total BioCO <sub>2</sub>	1.14
Total Offsets (tCO <sub>2</sub> e)	2,209
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO <sub>2</sub> e)	0
Grand Total Offsets for the 2021 Reporting Year	
Grand Total Offsets (tCO <sub>2</sub> e) to be Retired for 2021 Reporting Year	2,209
Offset Investment (\$25 per tCO <sub>2</sub> e)	\$55,225

### Retirement of Offsets:

In accordance with the requirements of the Climate Change Accountability Act and Carbon Neutral Government Regulation, the University of the Fraser Valley (**the Organization**) is responsible for arranging for the retirement of the offsets obligation reported above for the 2021 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.

### Executive sign-off

Mark Goudsblom  Digitally signed by Mark Goudsblom  
Date: 2022.05.31 16:24:37 -07'00'

May 31, 2022

Signature

Date

Mark Goudsblom

Associate Vice President, Campus Planning and Facilities

Name (please print)

Title