



CAPILANO UNIVERSITY

2025 Climate Change Accountability Report



**CAPILANO
UNIVERSITY**

Honouring Traditional Territories

Capilano University is honored to be part of the North Shore community, and acknowledges with respect the Lil'wat, Musqueam, Sechelt, Squamish, and Tsleil-Waututh First Nations on whose unceded traditional territories we live, learn and work.



Squamish
Nation



shíshálh first nation
Sechelt
Nation



Tsleil-Waututh
Nation



Lil'wat
Nation



Coastal Corridor
Consortium

Executive Summary

The Climate Change Accountability Report (CCAR) for the period January 1st to December 31st, 2025, summarizes Capilano University's greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions, the actions taken in 2025 to minimize emissions, and plans to continue reducing emissions in 2026 and beyond.

Capilano University's emissions come from four categories stationary energy sources including the natural gas and electricity used to operate buildings, fugitive refrigerant emissions from space cooling and refrigeration equipment, mobile sources such as fleet vehicles and off-road equipment, and the paper consumed at all facilities. In 2025, stationary energy sources accounted for 94.20% of Capilano University's total annual emissions, followed by fugitive refrigerant emissions (4.81%), mobile sources (0.75%), and paper sources (0.24%).

Capilano University's total greenhouse gas emissions for 2025 were 1,889 tonnes of carbon dioxide equivalent (tCO₂e). This equates to a decrease in emissions of 13.4% compared to 2010 and an increase in emissions of 17.1% compared to 2024. The year over year emissions increase between 2024 and 2025 can be primarily attributed to the energy consumption at Capilano University's new childcare centre which opened in March 2025 as well as the increase in BC's provincial electricity emission factor due to out-of-province power imports during periods of peak demand.

Each year Capilano University pays the province an offset value of \$25 per tonne for all eligible emissions. For the 2025 reporting year, Capilano University's offset retirement costs equal \$45,348.

Capilano University is actively working toward reducing its emissions and increasing campus climate resilience by integrating sustainability into capital planning and operations, enhancing energy efficiency across facilities, expanding climate education and awareness, and embedding climate risk considerations into long-term strategic and infrastructure decisions.

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Overview

Capilano University is committed to reducing its environmental impact and promoting sustainability across its campuses. This focus is part of the University's long-term strategic direction, as outlined in the Envisioning 2030 plan.

Strategic Goals and Initiatives

Central to Capilano University's sustainability efforts is the goal to "imagine and develop sustainable actions to minimize our ecological footprint." This objective underscores the University's proactive approach to integrating sustainability into its operations and community engagement.

In alignment with this goal, Capilano University has undertaken several key initiatives:

- **Infrastructure Modernization:** The University is implementing infrastructure plans that support sustainability objectives, guided by the Campus Master Plan framework.
- **Green Buildings:** Capilano University has integrated sustainability into its building design processes, exemplified by recent projects, such as the Fulmer Family Centre for Childhood Studies and Student Housing, that prioritize energy efficiency, low water use, and climate-responsive design. Features such as green roofs, high-performance envelopes, and passive cooling strategies reduce environmental impact while enhancing building performance.
- **Curriculum Integration:** Courses engage students with global environmental issues, emphasizing the relationship between individuals, society, and the natural world.



Capilano University's Three Key Components to their Envisioning 2030 Plan

Through these concerted efforts, Capilano University aspires to serve as a catalyst for integrating sustainability into higher education, ensuring a healthier planet for future generations.

Greenhouse Gas Emissions Overview

This section includes an overview of Capilano University’s greenhouse gas (GHG) emissions trends from 2010 to 2025, highlighting key changes and contributing factors, as well as emission reduction actions taken in 2025 and planned for future years. All emission totals below include biogenic emissions.

Emissions Trends

Figure illustrates Capilano University’s total annual GHG emissions trend from 2010 – 2025 in comparison to annual heating degree days (HDDs). The graph shows a clear downward trend in total annual GHG emissions from 2010 to 2023, with a 42.5% reduction over the period, from 2,181 tCO₂e in 2010 to 1,253 tCO₂e in 2023. Most of the emissions are from stationary energy use, which has steadily declined over the years and accounts for most of the overall reduction. A notable drop occurred between 2012 and 2015, after which emissions remained stable with some year-to-year fluctuations. In early 2020 the COVID-19 pandemic struck, reducing onsite activity, and associated stationary, mobile, and paper GHG emissions. There was a rise in emissions for the 2024 reporting year, which can be attributed to two key factors. First, fugitive refrigerant emissions were included in the GHG inventory for the first time in 2024 and Capilano University expanded its operations by acquiring a new campus in Squamish which welcomed its first students in 2024. There was also a 17.1% increase in emissions for the 2025 reporting year, compared to 2024, which is largely due to the addition of the Fulmer Family Centre for Childhood Studies at the North Vancouver campus, increasing overall energy use and associated emissions, as well as the increase in BC’s provincial electricity emission factor due to out-of-province power imports during periods of peak demand.

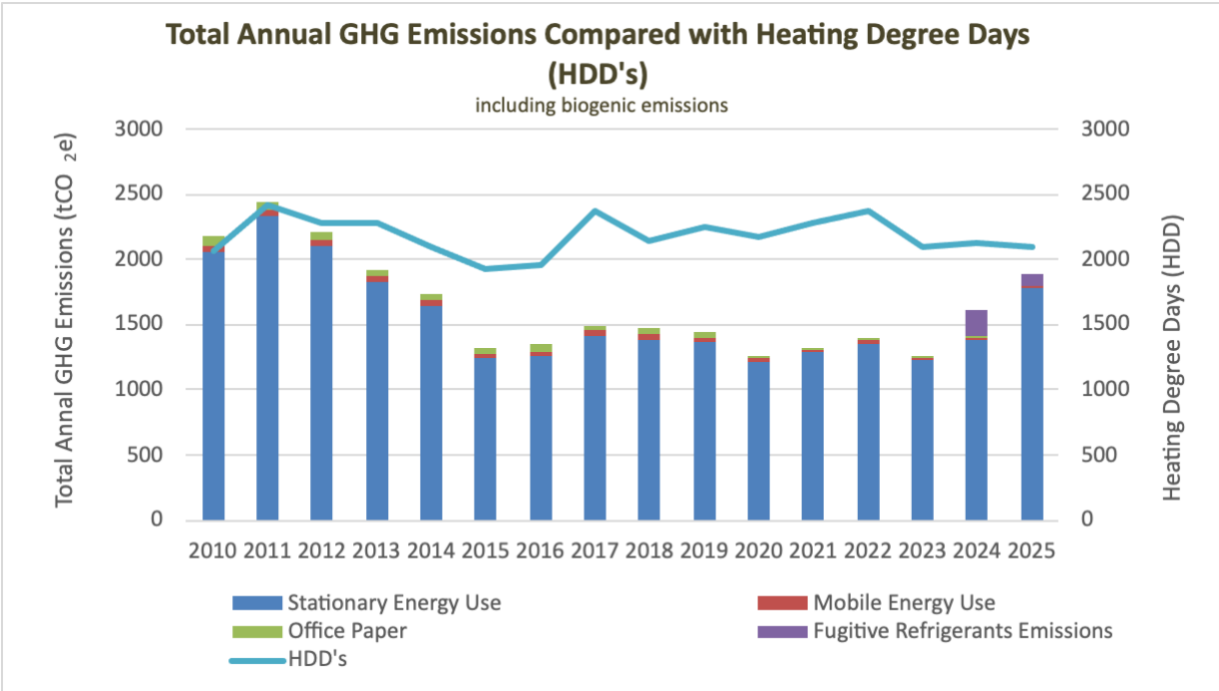


Figure 1. Capilano University’s Total Annual GHG Emissions Compared with Heating Degree Days from 2010-2025

Figure 2 presents this narrative through the lens of total annual carbon offset costs. Offsets rose in 2024 with the addition of fugitive refrigerant emissions and energy use from the new Squamish campus, and increased again in 2025 following the inclusion of the Fulmer Family Centre for Childhood Studies. However, carbon offset costs in 2025 are still 17% lower than the University’s 2010 baseline values.

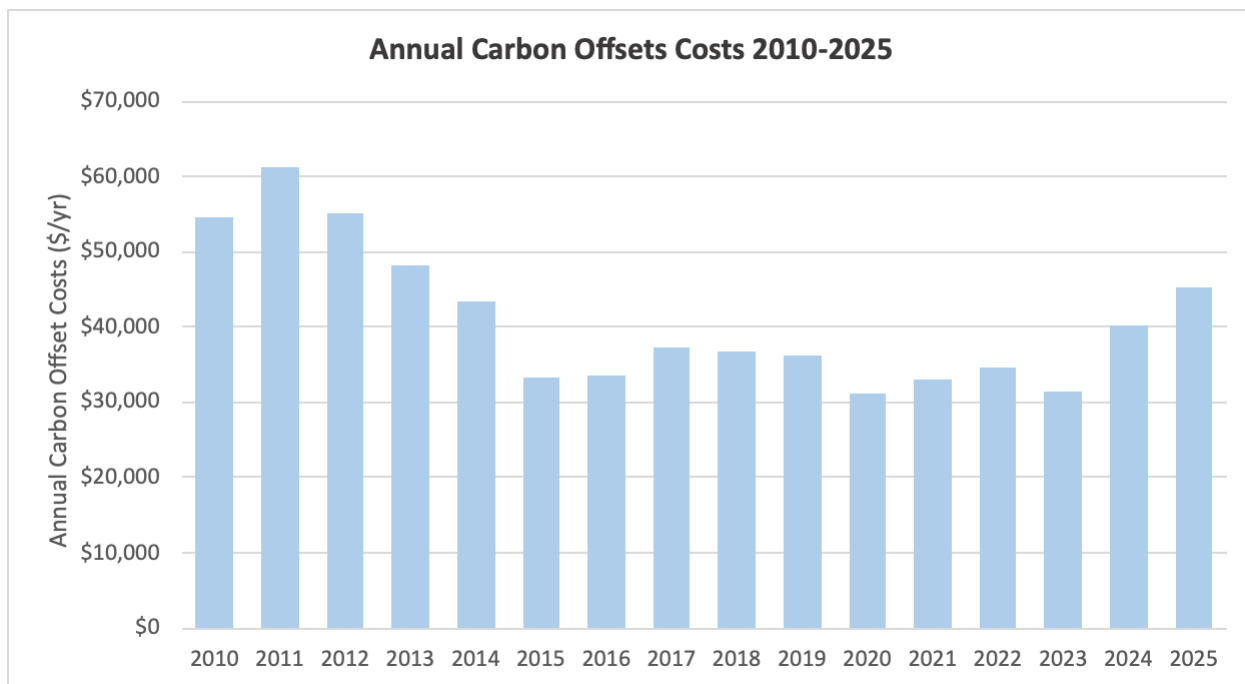


Figure 2. Capilano University’s Annual Carbon Offset Costs from 2010-2025

2025 Emissions

As Figure describes Capilano University’s 2025 total GHG emissions decreased by 13.4% compared to 2010 levels and increased by 17.1% compared to 2024 levels.

GHG Emissions by Source



Stationary Sources

Stationary sources accounted for 1779 tCO₂e or approximately 94.20%, including biogenic emissions, of Capilano University’s total emissions in 2025. Emissions in this category are related to the use of natural gas for building heating, ventilation, and kitchen appliances, and electricity for building cooling, fans, lighting, elevators, plug loads and servers.



Fugitive Refrigerant Emissions

Fugitive refrigerant emissions accounted for 90.8 tCO₂e or approximately 4.81% of Capilano University’s total emissions. Emissions in this category are associated with refrigerants used in the building’s mechanical cooling systems, as well as smaller appliances like refrigerators and freezers.



Mobile Sources

Mobile sources accounted for 14.2 tCO₂e (0.75%), including biogenic emissions, of Capilano University's total emissions. Capilano University fleet consists primarily of gasoline- and diesel-powered vehicles, along with a single hybrid light-duty vehicle.



Paper

Paper consumption accounted for 4.5 tCO₂e or approximately 0.24% of Capilano University's total emissions in 2025. This represents the smallest source of the University's total emissions.

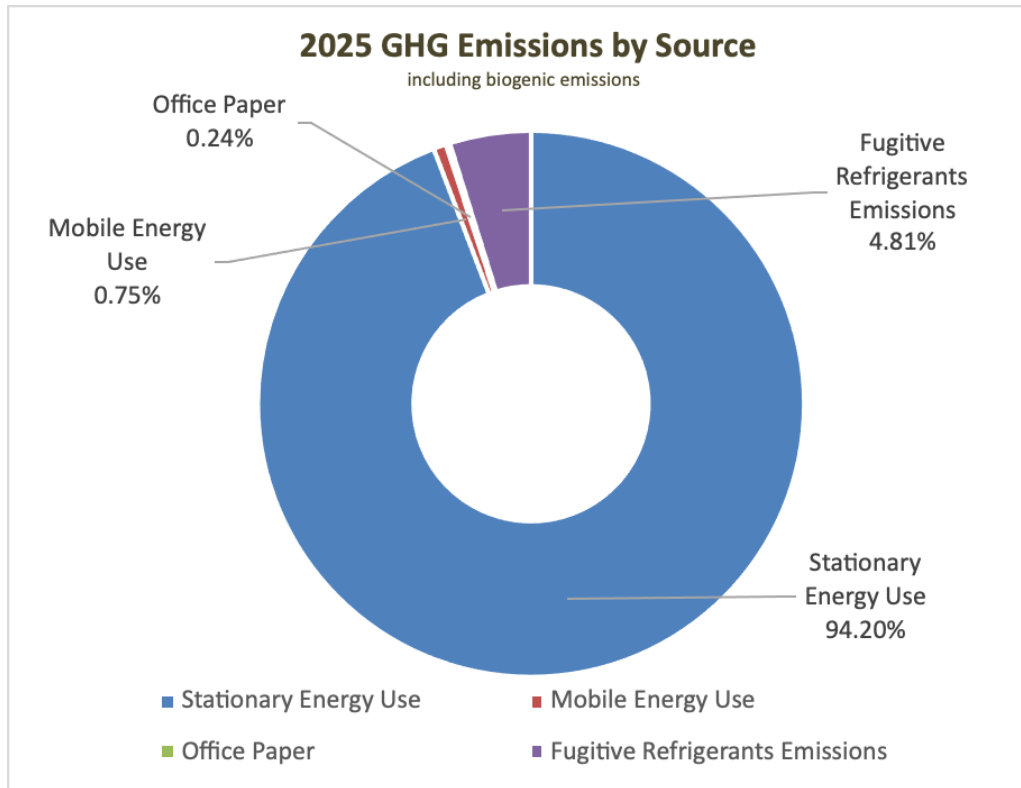


Figure 3. Breakdown of Capilano University's 2025 GHG Emissions by Sources

Emissions Reductions Actions

As part of Capilano University’s commitment to reducing its energy consumption and associated emissions, projects are prioritized and selected based on feasibility, resource availability, and potential impact. As a result, most projects completed in 2025 and planned for 2026 focus on reducing stationary energy use and strengthening climate resilience. This includes various mechanical and infrastructure upgrades to improve energy efficiency and reduce greenhouse gas emissions, as well as the revision of the university’s current sustainability policies. Below are lists of actions taken by Capilano University in the 2025 calendar year to minimize emissions and plans to continue reducing emissions in future years.

<i>Stationary Sources (Buildings)</i>		
Actions Taken in 2025	Site	Project Description
	Squamish Campus	<ul style="list-style-type: none"> The replacement of the main boiler plant servicing the Academic and Library buildings was completed, and the fire alarm systems on campus were also replaced.
	North Vancouver Campus	<ul style="list-style-type: none"> Boiler plant replacements were completed at the Cedar and Bosa buildings. Bosa Render Farm and Server Room Cooling Upgrade were completed. These equipment upgrades are part of ongoing efforts to modernize aging systems, enhance operational performance, and support the university’s sustainability goals. Completed and opened the new Fulmer Family Centre for Childhood Studies, targeting for LEED Gold certification.
Actions Planned for 2025 and beyond	Site	Project Description
	All Campuses	<ul style="list-style-type: none"> Continue with major retrofits across the building portfolio including cooling upgrades and infrastructure upgrades. Review and update current sustainability policies and practices. Strengthen external partnerships with local communities and other organizations. Explore ongoing training resources related to climate risks in the surrounding areas. Expand minor retrofits to additional buildings, targeting lighting upgrades. Strengthen refrigerant tracking practices, including the development of procedures for refrigerant data recording. Strategic Energy Management Plan. Integrated Energy Audit.



Success Story

As of February 2025, Capilano University opened the doors to the Fulmer Family Centre for Childhood Studies. The Fulmer Family Centre for Childhood Studies is a leading example of climate responsive design, combining low-carbon construction with high-performance operations. The building is currently targeting LEED Gold certification. The building uses a mass timber structure made from sustainably sourced wood, reducing embodied carbon while creating an environment that connects learners to the surrounding forest. Its siting and landscape design prioritize the preservation of existing trees and natural habitats, enhancing biodiversity and supporting nature-based learning.

Designed for long-term climate resilience, the Centre is fully electric achieving approximately 30-40% lower energy use than comparable buildings. The building features a high-performance envelope, with optimized airtightness, energy efficiency ventilation systems, advanced LED lighting solutions, and water efficient fixtures further reducing emissions and utility use, while improving indoor environmental quality. Together, these strategies create a healthy, low carbon “living classroom” that not only minimizes environmental impact but also fosters sustainability awareness among students, educators, and the broader community.



Figure 4. Fulmer Family Centre for Childhood Studies

Public Sector Climate Leadership

This section includes an overview of Capilano University's approach to public sector climate leadership, with a focus on climate risk management and adaptation.

Climate Risk Management

Capilano University recognizes the increasing impacts of climate change on its operations and community. In recent years, extreme heat events have disrupted campus activities, affecting the well-being of students and staff and requiring the relocation and rescheduling of classes. These impacts have prompted a re-evaluation of how the university manages physical and operational risks in a changing climate.

The university has also experienced climate-related hazards such as extreme heat. In 2025, there was a fire located approximately 2 km from the Squamish campus that caused concern, but no direct impact to the campus. With its main campuses located across the North Shore and Sea to Sky region, Capilano University is also aware of its potential exposure to future climatic risks such as intense rainfall and sea level rise, even though these hazards have not yet directly affected campus assets.

While the university has not yet completed formal climate risk assessments across its buildings or service delivery models, it is taking steps to better understand and track climate-related risks. For example, Capilano University has conducted FireSmart assessments and clearances to identify and reduce risks such as extreme heat. Other efforts are currently managed on an as-needed basis. Despite these limitations, climate considerations are increasingly integrated into capital planning, business continuity, infrastructure upgrades, strategic planning, and procurement.

The university recognizes that adaptation planning is a continuous process and has begun to embed climate resilience into core decision-making. While the university has not yet established a formal climate adaptation strategy, it is increasing internal awareness and building foundational knowledge through participation in strategic and financial planning processes, along with ongoing training and knowledge-sharing initiatives that consider long-term climate risks and impacts.

Legislative Reporting Requirements

Declaration Statement

This PSO Climate Change Accountability Report for the period January 1, 2025, to December 31, 2025, summarizes Capilano University’s greenhouse gas (GHG) emissions profile, total offsets to reach net-zero emissions, actions undertaken in 2025 to minimize GHG emissions and plans to continue reducing emissions in 2026 and beyond. By June 30, 2025, the 2025 Climate Change Accountability Report will be posted on Capilano University’s website at <https://www.capilanou.ca/>

Capilano University 2025 GHG Emissions and Offsets Summary	
GHG emissions for the period January 1 – December 31, 2025	
Total BioCO ₂	45.0 tCO ₂ e
Total Emissions (tCO ₂ e)	1,889 tCO ₂ e
Total Offsets (tCO ₂ e)	1,844 tCO ₂ e
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offset Adjustment (tCO ₂ e)	-30.08 tCO ₂ e
Grand Total Offsets for the 2025 Reporting Year	
Grand Total Offsets (tCO ₂ e) to be Retired for 2025 Reporting Year	1,813.92 tCO ₂ e
Offset Investment (\$25 per tCO ₂ e)	1,814 tCO ₂ e x \$25 = \$45,348

2025 GHG Emissions and Offsets Summary Table

Retirement of Offsets

In accordance with the requirements of the Climate Change Accountability Act and Carbon Neutral Government Regulation, Capilano University (the Organization) is responsible for arranging for the retirement of the offsets obligation reported above for the 2025 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



May 29, 2026

Signature

Date

Ryan Blades

AVP, Facilities, Safety, Planning, and Real Estate

Name (please print)

Title