

Kwantlen Polytechnic University

2025 PSO Climate Change Accountability Report

PART 1. Legislative Reporting Requirements

Declaration statement:

This PSO Climate Change Accountability Report for the period January 1, 2025, to December 31, 2025, summarizes our greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2025 to minimize our GHG emissions, and our plans to continue reducing emissions in 2026 and beyond.

Emissions reduction actions (2025) and plans (2025/2026) by Campus and building.

Stationary Sources:

All Campuses

“KPU 2050”, (our official campus plan’s) Sustainability Framework document outlines our commitment to meet the next stepped target of GHG reductions for 2030 of 40% below 2007 levels. KPU is actively working towards this goal.

Decarbonization Plan:

In 2024 a draft comprehensive decarbonization plan was developed using information from studies that have been completed in previous years. This document outlines a comprehensive plan to reduce greenhouse gas emissions and align with the government of British Columbia's climate reduction targets. The plan focuses on transitioning from natural gas to electricity, improving energy efficiency across campuses, and addressing asset lifecycle management. KPU's carbon emissions primarily stem from the use of natural gas for heating, domestic hot water, and other energy needs such as kitchens and laboratories. The institution's infrastructure, while essential for educational purposes, contributes significantly to its carbon footprint.

This plan has been integrated into KPU's asset lifecycle replacement plan, ensuring that energy-efficient alternatives are used as aging equipment is replaced. By coordinating these efforts, KPU plans to enhance operational efficiency while simultaneously reducing carbon emissions and maximizing the benefits of each investment.

Main Electrical Vaults Cooling Systems:

A study was conducted to assess the cooling systems for the main electrical vaults at each campus. This included evaluating the existing cooling systems in relation to electrical loads and assessing future electrical loads for each campus, as determined by our previous electrical load growth study. The purpose of this study is to determine whether the cooling systems in the electrical vaults are adequate for both existing loads when considering the past summers’ heat domes and anticipated future electrical loads as our heating systems are electrified and summer heat domes become more frequent. The design for the Surrey vault cooling was completed in 2025 with two mini split AC units

to be installed in early 2026. *Tech and Langley campus vault cooling is targeted for the 2026/2027 fiscal year.*

T8 to LED Interior Lighting Retrofit:

This project started in 2024 and is intended to reduce electrical consumption and associated carbon emissions while helping to reduce future electrical demand charges when the campus heating systems are electrified. The Surrey Campus was in progress in 2025 *and will be completed in 2026 with the Richmond, Tech and Langley work going to tender in 2026.*

Natural Gas Fired Cooking Equipment Review:

A review of current natural gas cooking equipment used in campus food service operations (four campus Cafes and two Tim Hortons franchises) was completed by Kaizen Food Services, to understand where KPU can consider electrified equipment to reduce these greenhouse gas emissions. The first stage of this project was completed in 2024. *The next step will be to analyze infrastructure requirements to determine the full scope of this change with a view to replacing cooking equipment as it reaches end-of-life and is expected in 2026.*

Cloverdale Campus

Continuous Optimization:

This project is from the decarbonization plan and started in 2024. It included a detailed assessment of the energy systems, such as heating, ventilation, and air conditioning (HVAC) and is funded in partnership with BC Hydro and Fortis BC. Energy saving measures were completed in late 2025/ *early 2026.*

Hot Water Heater:

This project is from the decarbonization plan and started in 2024 and is to replace the existing domestic natural gas hot water heater with an electric hot water heater to fuel switch from natural gas to electricity with the goal of reducing carbon emissions. The project was completed in 2025.

Replacement of Exterior Doors:

In 2024, design and scope documents were created to replace the six main entrance doors of the trades building with automated sliders. This will allow door opening size to be increased and decreased based on weather conditions, reducing heating and cooling losses year-round while maximizing accessibility. This project was completed in 2025.

Langley Campus

BMS Optimization:

This project started in 2024 and was to optimize the BMS system at Langley Campus. The work included reprogramming of specific elements of AHU-1 and AHU-8 to align with the ASHRAE Guideline 36 and tuning of existing demand-based control strategies for AHU-2, AHU-3, and AHU-7 and downstream VAVs. A review of occupancy sensors and investigation of how to improve

operation of ISH Lab heat pump was included. The project work and M&V to verify the energy savings that were achieved, was completed in early 2025.

Continuous Optimization:

This project is from the decarbonization plan and started in 2024. It includes a detailed assessment of the energy systems, such as heating, ventilation, and air conditioning (HVAC) and is funded in partnership with BC Hydro and Fortis BC. A report identifying opportunities for improvement was provided and energy saving measures were completed in late 2025/ *early 2026*.

Energy Metering System:

This study started in 2024, and recommendations were developed to enhance the energy metering. The study included inventory of all the existing meters and sub-meters, comparison of meter data with utility data to identify anomalies, meter repairs, meter calibration and verification plan, new meter install scope, meter data archival on enteliWEB and Kaizen, and Kaizen energy view application. The purpose of this study and the associated work is to enhance the energy metering system is to improve the ability to monitor and manage energy consumption. In addition, it will aid with electrical demand cost management when the heating system is electrified in future to reduce carbon emissions. The study was completed in 2025.

Heat Recovery System:

This project is from the decarbonization plan and started in 2025 with an application for incentive funding for Energy Modelling submitted to Fortis BC. It is anticipated that FortisBC will provide incentive funding for the Energy Modelling as well as the subsequent project work as long as the project exceeds the minimum threshold of 1000 GJ/Year savings which is required to qualify for funding under the FortisBC Custom Efficiency Program. *The next steps will include energy modelling, developing an NRRFP for design work, and tendering. The design procurement is scheduled for 2026.*

Richmond Campus

ASHRAE Level 2 Energy Audit & Glazing:

Started in 2023 as part of a glazing replacement project, this audit was completed in 2024. It involved conducting an energy assessment of Richmond Campus to review energy savings opportunities from different types of glazing associated with that project and to identify other energy efficiency measures. The audit provided a list of energy efficiency and carbon reduction measures complete with energy, emission and cost savings, relevant opinion of probable costs, and life cycle costing. The glazing replacement project proceeded through the design and procurement process in 2025, with installation of the replacement glass planned for 2026.

Building Management System (BMS) Replacement:

The existing BMS system (ca. 1992) is obsolete and will be replaced with a new enhanced system that will reduce energy consumption and associated carbon emissions. This project was funded in partnership with Fortis BC. Additional zone occupancy and CO2 sensors will be added while optimizing control strategies wherever possible and practical. The existing system will be expanded to independently control some areas of the building such as stairwells and main entrances, while enhancing and optimizing the atrium ventilation control to increase free cooling in the shoulder and

summer seasons. Design work wrapped up in 2023, with contractor selection and the project work started in 2024. The project was progress for 2025 *with a targeted completion for 2026. It will include enhancing the energy metering system to improve the ability to monitor and manage energy consumption. In addition, it will aid with electrical demand cost management when the heating system is electrified in future to reduce carbon emissions.*

Heat Recovery System:

This project is from the decarbonization plan and started in 2024 is funded in partnership with Fortis BC. At present FortisBC has approved incentive funding for Energy Modelling which has been completed as well as the subsequent project work under the FortisBC Custom Efficiency Program. An The design work was completed 2025, *with ITT tender issued for the project work in early 2026.*

Surrey Campus

BMS Optimization:

This project to optimize the BMS system at Surrey Campus started in 2024. The work included tuning and refining the system controls programming at the KPU Surrey campus – Building B and Building E to align with the ASHRAE Guideline 36. *The project work and the M&V to verify the energy savings achieved was completed in 2025.*

Energy Metering System:

This study started in 2024, and recommendations were developed to enhance the energy metering. The study included inventory of all the existing meters and sub-meters, comparison of meter data with utility data to identify anomalies, meter repairs, meter calibration and verification plan, new meter install scope, meter data archival on enteliWEB and Kaizen, and Kaizen energy view application. The purpose of this study is to improve the ability to monitor and manage energy consumption. In addition, it will aid with electrical demand cost management when the heating system is electrified in future to reduce carbon emissions. The main meter in the Surrey vault will be upgraded and replaced in 2026.

Main Electrical Vault Upgrade:

This project on KPU's oldest campus (with the largest footprint growth) started with design in 2023 and includes upgrading the campus' transformer equipment from the existing 2.5 kVA to 7.5 kVA. This capacity increase will support future carbon emission reductions through heating plant electrification, allow for fleet EV charging stations, support the new electrically heated Child Care Facility and future carbon neutral building additions and expansions. The project work began in summer 2024, progressed rapidly through 2025 and *is targeted for completion in mid-2026.*

Cedar Building Gas Fired HVAC Upgrade, Phase Two:

This project to replace the two remaining gas fired HVAC units started with design back in 2022 with the five units which were replaced in 2024. The purpose of Phase Two, is to fuel switch the heating for the south/Teaching and east/ Administration wings from end of life, natural gas fired AHUs to air source heat pumps. This project will begin in 2026 with a review of the previous design, with procurement and construction anticipated for 2027.

Cedar Building Roof Replacement:

The roofing materials of this building will be removed and replaced in summer 2026 as it has reached the end of its natural life. The drainage will be improved to reduce standing water and many sections will receive additional insulation (as parapet heights allow) to reduce heating and cooling requirements within the building. The project's design and site conditions investigations were completed in 2025 and the roof replacement will be done in summer 2026.

NEW Child Care and ECCE Facility:

In partnership with the Métis Nation of B.C., KPU has designed a new 1218 M² child care facility at KPU Surrey, in response to the lack of accessible, quality childcare in this community. This dual use facility will provide 61 childcare spaces (36 for infant-toddlers and 25 for children aged 2 ½ to kindergarten) as well as practicum placement opportunities for Early Childhood Education students in partnership with Capilano University's Early Childhood Education programs. Arranged around a courtyard, the facility shelters children from traffic, defines a campus edge, and supports an active pedestrian realm.

The facility has been designed with sustainability, reduced carbon emissions and energy use as key requirements including utilizing electrically fired air source heat pumps for heating. The project targets LEED Gold, Sustainability Step Code 4, CaGBC Zero Carbon Building – Design Standard, Alignment with Salmon-Safe BC Standards and a gold Rick Hansen Foundation Accessibility Certification. In addition, this mass timber build will sequester approximately 123 tonnes of carbon. Project mobilization began in fall 2025 *and construction will be complete in May 2027.*

Future Planning:

Surrey Campus Welcome and Transit Plaza:

Project planning was launched in response to a new TransLink R6 Rapid Bus line, which will provide express transit service connecting the Newton Exchange and the Scott Road Skytrain station. As one of the few stops along this corridor, the project will create a transit-oriented gateway for KPU Surrey, as well as an opportunity to collaborate with Indigenous communities and organizations to ensure Indigenous cultures and values are included and celebrated through this improvement to the campus' public realm. With KPU's existing bike lockers and free Intercampus shuttle, the plaza will provide seamless carbon reduced transportation options for students and employees and with its flexible design can additionally be utilized for campus and community gatherings. Collaboration and planning began in 2024 with the project subject to the securing of additional capital funding. No funding was available to proceed in 2025.

Onsite Student Residence:

This 358-bed **Student Residence** and dining hall will be the first purpose-built, publicly funded, below market student rental housing in Surrey, addressing the critical need for secure, affordable, and accessible housing at Surrey Campus. Prioritized access will be offered to Indigenous learners, former youth in care, and student groups that have historically been marginalized in housing, in particular those with disability-related accessibility needs. This new building targets LEED Gold and Zero Carbon Building Design as well as a gold Rick Hansen Foundation Accessibility Certification. In 2025, the consultation and design phase began for this project.

All Campuses: KPU engaged B.C. Hydro to consider the possibility of a funding public EV charging stations across KPU's sites based on the comprehensive EV Strategy KPU developed in 2023. B.C. Hydro agreed to fund this infrastructure at Richmond campus where the planning and design phase concluded in 2025, with construction of 13 additional EV stations (8 Level 3 and 5 Level 2 chargers) planned for 2026. *Surrey campus public EV charging stations are in the planning phase for 2026 and expect to include 8 Level 3 and 9 Level 2 chargers for a total of 17.*

A. Mobile Sources

KPU's Faculty of Trades & Technology owns all-electric, plug-in Chevrolet Bolt shared between the Automotive Technology Program as a teaching tool and available for use for external events by Marketing. The Office of the President leases a gas/electric hybrid for their senior administrators' business use.

Overall, KPU operates a small fleet of newer vehicles, which are well maintained and incur limited mileage annually, due to our campus' close proximity to each other. Of these, two are traditional fleet vehicles; the others are purpose use only and most will not reach end-of-life for ten or more years. These factors, in combination with the lack of available power* to add Fleet charging stations, has delayed KPU's development of a comprehensive EV Fleet transition plan. **In 2024 KPU began to upgrade campus electrical supply infrastructure, with our second campus' (Surrey) upgrade targeting completion in mid-2026. This will allow future consideration of fuel switching for our fleet.*

KPU, in partnership with the Kwantlen Student Association, runs a daily free shuttle service for students and employees between campuses to backstop and supplement BC Transit's operations in our region. Our complement of 24 EV charging stations all include a "free parking" incentive – Surrey (2), Cloverdale (12), Richmond (6) and Civic Plaza Campuses (4 shared with Civic Plaza). Secure bicycle lockers and shower facilities are available on all campuses to encourage cycling or cycling with transit, to work and school.

B. Paper Consumption

KPU has purchasing policies on recycled content, SFI and FSC certified sources. The years' long commitment to using non-wood fiber papers (specifically Sugarsheet – a renewable sugar cane fiber-based product) for campus printers and copiers continues in 2025. Electronically stored / paperless documents are the norm across all operations, continuing to decrease the need for printing. Existing printers default to double sided and online services for marketing, advertisement, presentations and meetings are encouraged. "PaperCut" software technology continues to reduce accidental printing. KPU provides both paper and cardboard recycling services across all campuses.

Many KPU courses are offered in fully or partially online modes and e-textbooks are widely available to support courses in many programs, raising sustainability awareness in our students.

C. Fugitive Sources

KPU participated in the pilot project for reporting fugitive emissions back in 2023, completing an inventory to identify refrigerant containing equipment across all campuses including HVAC, food

service, production brewery and laboratory / research equipment. We tested several of the different processes for data reporting and provided feedback on our data collection experiences. KPU updates this inventory on an annual basis.

For many years KPU has contracted with reputable refrigeration contractors whose licensed Refrigeration Technicians maintain all our equipment on a regular basis. As required by their trade, all refrigerants are tracked per service call, with KPU receiving both a refrigerant report with each invoice and an annual consumption log, identifying all refrigerants by type and volume that were added or removed and captured for reuse, each calendar year.

KPU’s procurement processes use Life Cycle Cost Analysis (LCCA) and consider sustainability as a basis for decision-making for all energy and water using products including those for building systems such as HVAC.

2025 GHG Emissions and Offsets Summary Table

Kwantlen Polytechnic University 2025 GHG Emissions and Offsets Summary	
GHG emissions for the period January 1 - December 31, 2025	
Total BioCO ₂	1.57
Total Emissions (tCO ₂ e)	2433
Total Offsets (tCO ₂ e)	2433
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO ₂ e)	0
Grand Total Offsets for the 2025 Reporting Year	
Grand Total Offsets to be Retired for 2025 Reporting Year (tCO ₂ e)	2433
Offset Investment (\$)	\$60,825.00

Retirement of Offsets:

In accordance with the requirements of the *Climate Change Accountability Act* and the Carbon Neutral Government Regulation, KPU 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 Energy and Climate Solutions 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

Vision 2026 Strategic Plan Goals:

KPU's 3-year strategic plan through 2026 continues to apply our goal of "sustainability through our offerings, research and operations", to decision-making processes across the University. KPU will soon embark in the next stage of our ongoing strategic planning to develop Vision 2029 which will continue to include sustainability as one of our top priorities.

Climate Strategy Lead:

Dr. Brett Favaro was appointed for 1 year as Climate Strategy Lead ending September 2025. Internal and external consultations over the appointment period resulted in a draft Climate Strategy outlining the vision, values and strategic priorities for KPU and is available at

<https://wordpress.kpu.ca/climatestrategy/2025/09/23/draft-2-0-kpu-climate-strategy-vision-values-and-strategic-priorities/>.

2B. Additional Sustainability Initiatives

Transportation Demand Strategy:

KPU, in collaboration with Watt Consulting, completed an engagement and planning process to create KPU's first Transportation Demand Management (TDM) Strategy. Through interactive discussions with a KPU working group and broader on campus conversations with the KPU community, the project team collected input, shared best practices, and proposed key strategies (big moves) that aim to reduce drive-alone commuting trips, greenhouse gas emissions, and parking demand. While further refinement of the strategy is expected, the top five big moves could include enhanced bicycle parking, subsidized transit for employees, financial support for e-bikes, improved shuttle services, and parking pricing adjustments. These strategies aim to diversify commuting options, enhance sustainability, and manage parking effectively.

KPU's Annual Sustainability Survey:

The Office of Sustainability, with the support of the Office of Planning and Accountability runs an annual survey, assessing the KPU community's understanding of sustainability, including the role of sustainability in everyday decision-making; the use of specific services at KPU; and the community's transportation choices to, from, and between campuses.

A sustainability quiz has also been administered to understand the level of awareness of sustainability topics at KPU and within Metro Vancouver, including climate change, responsible production and consumption, and society and economy. The information shared in the survey helps guide KPU's sustainability commitments, including future sustainability projects and initiatives (including our S.T.A.R.s sustainability rating), strategic transportation decision-making and potential

upgrades to cycling amenities on campus and parking infrastructure for the new student housing project.

2C. Success Stories

S.T.A.R.S.*:

KPU's Office of Sustainability submitted their first report to the Association for the Advancement of Sustainability in Higher Education's Sustainability Tracking Assessment and Rating System (STARS) program a year ago. The STARS reporting tool contains 45 credits across four main credit categories: Academics (AC), Engagement (EN), Operations (OP), and Planning and Administration (PA). There is a bonus credit category, Innovation and Leadership (IN), which recognizes innovative solutions to sustainability challenges that may not have otherwise been captured, for a total of 63 credits.

In 2024, **KPU received a Silver Rating** for its sustainability performance, with full points awarded for the credits associated with Campus as a Living Laboratory, Sustainability Literacy Assessment, Community Partnerships, Inter-campus Collaboration, Office Paper Purchasing, Sustainability Planning and Wellness Program.

Engaging in this process has allowed KPU to establish a baseline of sustainability performance and track progress as strategic initiatives are implemented over time. Moving forward, the Office of Sustainability will apply the lessons learned from the STARS reporting process to help inform KPU's long-term sustainability planning processes, towards advancing our STARS score in future submissions. S.T.A.R.S. progress is reported out every 3 years, with our next update due in 2027.

**Sustainability Tracking Assessment and Rating System (STARS), a transparent, self-reporting framework used by universities across Canada and the world to measure sustainability performance.*

Waste Management:

KPU provides public **waste sorting stations** in common areas and hallways across campus. Options are provided for mixed recycling, compost, and paper - helping divert materials from landfills. **Paper towel waste** from KPU washrooms is collected separately and composted diverting an estimated 6,217 kg of paper towels and 25,000 garbage bags each year. **Organic materials** collected from food services, KPU Farm Schools and Horticulture are transported to a local composting facility where they are broken down into clean, nutrient-rich compost. This compost is reused in agriculture, landscaping, and soil restoration projects, helping to close the loop on organic waste. **Spent grains** from our teaching Brewery are picked up by a local farmer for use as animal feed. Our trades shops reclaim **waste from the teaching processes** (copper, steel, stainless steel, aluminum and wood) to ensure it is re-purposed.

United Nations, Sustainable Development Goals:

In 2024, KPU was awarded the Colleges and Institutes Canada, **Silver Award of Excellence** for its efforts in advancing the Sustainable Development Goals through the SDG Mapping Project. This project took a "whole-of-university" approach, engaging the university community to identify connections between the SDGs and KPU's courses, programs, research, services, operations, and policies. Since then, KPU has made strides towards addressing many of the SDG Mapping Project recommendations, including crafting a KPU-wide definition of sustainability; creating more teaching

and learning resources for faculty to embed the SDGs into coursework; and establishing the cross-functional, cross-departmental Sustainability Hub.

In March, KPU hosted its Third annual Sustainable Development Goals (SDG) Week, a national collaboration featuring workshops, panels, and other interactive programming to increase awareness of and engagement with the 17 SDGs on university and college campuses.

Executive Sign-off:

	May 29, 2026
_____ Signature	_____ Date
Carole Laplante	Associate Vice President Finance
_____ Name (please print)	_____ Title