

# PSO Climate Change Accountability Report

## Douglas College

**Date:** May 30, 2026

**Reporting period:** January 1 to December 31, 2025

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# 2025 PSO Climate Change Accountability Report

Douglas College

## PART 1. Legislative reporting requirements

### Executive summary

One of Douglas College's core values is that we take the long view. We recognize that decisions we make today will have an impact for many decades to come, so we work hard to make our choices count. As a significant public sector organization, the College has a responsibility to both help mitigate the effects of global climate change and to educate by example. This report highlights our key actions in 2025 toward these goals.

In addition to the actions highlighted, Douglas College continues to investigate opportunities provided by organizations such as BC Hydro's Power Smart programs, FortisBC, Climate Action Secretariat BC, Natural Resources Canada (NRC), and the Ministry of Post-Secondary Education and Future Skills (PSFS). These relationships provide access to a variety of resources to assist us in the development of a college-wide, environmentally sustainable energy management plan that focuses on achievable, sustainable and measurable results.

Through these and other relationships with experts and community partners, we can monitor our progress against our plan and update our procedures based on experience gained. Environmental sustainability is an iterative process, and Douglas College continues to learn and improve every year.

**Declaration statement:** This Climate Change Accountability Report for the period Jan. 1–Dec. 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.

By June 30, 2026, a link to Douglas College's final Climate Change Accountability Report will be posted to our website at [douglascollege.ca](https://douglascollege.ca).

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

### **Actions taken in 2025**

Douglas College's 2025–2030 Strategic Plan enshrines environmental sustainability as a core institutional commitment, with explicit goals to reduce the environmental impact of College facilities and operations. While the College does not currently publish a single quantified emissions reduction target, sustainability commitments are embedded in our strategic direction and guide all capital planning and retrofit decisions. In 2025, emissions reductions were a central consideration in all retrofit and renovation work across both campuses.

### **808 Royal – New academic building and student housing**

The design of our new academic building and student housing was completed, with features to reduce emissions during construction and while in operation. These include:

#### **1. Foundational building design and envelope** – These are critical for minimizing energy loss and setting a sustainable baseline.

- 808 Royal is designed to achieve LEED Gold standard and Step Code 4, indicating a high level of sustainability and energy efficiency in its design and construction.
- The building envelope is designed to prevent air leakage and drafts, enhancing thermal comfort and reducing energy losses.
- Natural ventilation and free cooling via operable windows in student housing suites will supplement mechanical systems during shoulder season, reducing energy consumption.

#### **2. Heating, cooling and ventilation systems** – These systems are the heart of building energy use and efficiency.

- Heat pump technology as the heating and cooling plant to maximize heat recovery, improve energy efficiency and reduce carbon footprint.
- Heat recovery ventilators for the entire building (academic and student housing) to use heat reclaimed from washroom exhaust to preheat outdoor air.
- Waste heat recovery from the cooling equipment in electrical rooms, communication rooms and elevator machine rooms.
- Variable air volume and variable speed drives, to allow system turndown to reduce energy consumption during unoccupied hours.

**3. Smart controls and optimization** – These technologies enable efficient operation and energy management.

- Direct Digital Control (DDC) strategies to schedule HVAC equipment operating hours and to optimize their performance via smart sensors to reduce energy and maintain a high level of indoor air quality.

**4. Lighting efficiency** – Energy-saving lighting solutions complement all other systems.

- Installation of LED fixtures throughout the building, which consume significantly less energy and have longer lifespans compared to traditional lighting sources.

**5. Overall sustainability and carbon goals** – High-level environmental targets and outcomes.

- The building will be heated and cooled without fossil fuels and targeted to have zero carbon status.

### **New Westminster Campus**

**1. HVAC control system upgrade** – This is a foundational infrastructure improvement that enhances control and energy efficiency across building systems.

- Replaced 42 pneumatic controlled Variable Air Volume (VAV) boxes with direct digital controls, enhancing monitoring of the HVAC system and improving the efficiency of the building's air handling units.

**2. Integrated lighting upgrades in renovation projects** – These upgrades are strategic, happening as part of broader departmental renovations maximizing energy efficiency and design synergy.

- More efficient lighting fixtures have been incorporated into the design of renovation projects in Level 1 South and Level 4 North and South administration offices.

**3. Targeted classroom upgrades** – These room-specific improvements deliver energy savings and improved comfort tailored to each space's unique function and usage patterns.

- N3411 accessibility upgrade
  - Completed LED upgrades from T8 lighting fixtures.
  - Installed occupancy sensors for lighting controls, ensuring lights are only active when the space is in use.
- N3100 Audio Mastering Suite

- Completed LED upgrades from T8 lighting fixtures.
- Installed occupancy sensors for lighting controls, ensuring lights are only active when the space is in use.
- Installed a dedicated HVAC unit to serve only the Audio Mastering Suite, improving mechanical system efficiency by eliminating the need to condition the entire zone for a single specialized space.
- Increased insulation to improve thermal comfort and reduce heat loss.

#### **4. Harmonic filter**

- A harmonic filter was installed at the switchgear to improve power quality and reduce harmonic distortion across the electrical system. By lowering energy losses associated with distorted electrical loads and preventing equipment inefficiencies, this initiative helps reduce indirect energy consumption, extend equipment lifespan and support more reliable, sustainable campus operations.

#### **5. Outdated electric door operators**

- Replaced outdated electric door operators in 10 locations with new energy-efficient models; removed washroom operators in favour of barrier-free designs.

#### **6. Variable frequency drive replacement**

- Replaced 12 variable frequency drives (VFDs) with newer models, reducing energy consumption and extending equipment lifespan.

#### **7. Electric vault maintenance**

- A comprehensive three-year cycle maintenance program was completed for the primary electrical vault to support system reliability and extend the service life of critical infrastructure. The work included detailed cleaning, inspection of all electrical connections and functional testing to identify any signs of wear, deterioration or potential failure.
- In addition, all satellite electrical rooms were serviced, including the cleaning and inspection of transformers and associated components. Each unit was assessed for signs of wear and tear, ensuring early detection of issues and enabling proactive maintenance.
- These measures collectively enhance system performance, reduce the risk of unplanned outages and contribute to the long-term durability and operational resilience of the institution's electrical infrastructure.

## 8. Landscape upgrade

- A landscape rejuvenation project was undertaken along Eighth Street and Victoria Street to improve site stability, safety, and environmental performance. Key measures included:
  - Installation of a retaining wall to stabilize the existing slope and prevent soil erosion.
  - Regrading of the slope to a more gradual profile, allowing for improved stormwater absorption and reduced runoff.
  - Installation of a permeable rock (pebble) bed to further control surface erosion and prevent sediment from being washed onto adjacent paved areas.
  - Removal of deteriorated and unsuitable vegetation, including dead or non-climate-adapted plant species.
  - Replacement with low-maintenance, climate-resilient native and adaptive shrubs to enhance long-term sustainability, improve visual appearance and support appropriate site use.

Overall, the landscape project improves site functionality by enhancing erosion control, supporting water management and creating a safer, more resilient and well-maintained landscape.

## Coquitlam Campus

**1. The Coquitlam Campus building envelope project** – Phase 3 (final phase) completed in the spring of 2026. Please see **2C. Success stories**.

**2. Integrated lighting upgrades in renovation projects** – These upgrades are strategic, happening as part of broader departmental renovations, maximizing energy efficiency and design synergy.

- More efficient lighting fixtures have been incorporated into the design of renovation projects in Level 3 administration offices in Building A and Building B.

**3. Targeted classroom upgrades** – These room-specific improvements deliver energy savings and improved comfort tailored to each space's unique function and usage patterns.

- LED retrofit of T8 fixtures in approximately 30 classrooms, with an average of 14 lights per classroom. Previously, the existing system was consuming 98,035 kWh; with the lighting upgrade, the new consumption is 45,798 kWh. The total energy saving is 52,236 kWh; this is equivalent to 85,697 litres of gas, which equates to driving a Toyota Prius SE 2026 from Douglas College's New Westminster Campus to St. John's, Nfld., and back again nearly nine times.<sup>1</sup>

<sup>1</sup>Based on fuel efficiency of 4.5L/100km.

<sup>2</sup>According to BC Hydro, average consumption for non-electric apartments in B.C. is 198 kWh/month.

#### 4. Outdated electric door operators

- Replaced outdated electric door operators in two locations with new energy-efficient models; installed a total of 74 elongated push-buttons to improve accessibility.

#### 5. Variable frequency drive replacement

- Replaced 10 variable frequency drives (VFDs) with a newer model, reducing energy consumption, lowering motor energy use and extending equipment lifespan.

#### 6. Electric vault maintenance

- A comprehensive three-year cycle maintenance program was completed for the primary electrical vault to support system reliability and extend the service life of critical infrastructure. The work included detailed cleaning, inspection of all electrical connections and functional testing to identify any signs of wear, deterioration or potential failure.
- In addition, all satellite electrical rooms were serviced, including the cleaning and inspection of transformers and associated components. Each unit was assessed for signs of wear and tear, ensuring early detection of issues and enabling proactive maintenance.
- These measures collectively enhance system performance, reduce the risk of unplanned outages and contribute to the long-term durability and operational resilience of the institution's electrical infrastructure.

#### 7. Landscape upgrade

A landscape rejuvenation initiative is planned for the Coquitlam Campus.

Previous tree plantings in close proximity to the building envelope contributed to root intrusion into the waterproofing membrane.

The new landscape strategy prioritizes environmental performance and infrastructure protection:

- Reduced planting densities and elimination of large tree species immediately adjacent to the building.
- Incorporation of low-growing, native and climate-adapted shrub species with non-invasive root systems.
- Selection of species to minimize maintenance requirements and avoid future conflicts with below-grade building components.

Overall, the project aims to restore vegetative cover while implementing a more resilient and risk-informed landscape design that enhances site durability, reduces long-term maintenance demands and safeguards critical building infrastructure.

## Both campuses

Information Technology Services reduced annual energy consumption by approximately 90,784 kWh in 2025. This was accomplished through the following initiatives:

- A network refresh throughout the College, incorporating sustainable power technology for enhanced performance and energy savings, with improved Wi-Fi coverage and range.
- Computer replacements that include lower-power monitors and sleep mode.
- Energy-saving initiatives, including turning off lab computers overnight and implementing smart technology with Wi-Fi access points that adjust power usage based on device presence.
- Replacing desktop phones with Microsoft Teams soft phones integrated with desktop computers.
- Virtualizing physical appliances.
- Decommissioning obsolete server infrastructure.
- Implementation of an energy monitoring service to analyze energy consumption.

## Breakdown of measured savings:

Category	Details	Annual savings (kWh)
Networks	39 switches replaced	3,588
Networks	46 access points replaced	3,764
Networks	2 load balancers decommissioned	1,664
Servers	4 Dell VxRail servers decommissioned	70,080
Computers	1,300 PCs turned off overnight	7,488
Phones	120 IP phones replaced with Teams soft phones	4,200
<b>Total</b>		<b>90,784</b>

In addition, Information Technology Services diverted 7,500 lbs of end-of-life electronics from the landfill through the Electronic Recycling Association (ERA). Items collected and responsibly recycled, refurbished or disposed of included:

- 45 computers, 33 laptops, 2 tablets
- 31 hard drives, 128 monitors, 2 all-in-ones, 2 scanners
- 15 printers, 3 DVD players, 1 TV, 1 VHS player, 1 microwave
- 46 phones, 182 switches, 5 servers, 10 server blades

### **Surrey Training Group site**

- Implementation of an energy monitoring service to analyze our energy consumption.

### **Plans for the future**

#### **New Westminster**

- Upgrade of roof insulation to exceed current building code requirements during roof renewal.
- Installation of solar panels on the roof above Level 6 North to offset energy costs.
- Replacement of once-through water-cooled chillers with air-cooled chillers to reduce potable water use for cooling kitchen walk-in freezers and coolers.
- Replacement of end-of-life cooling tower with an upgraded, energy-efficient model.
- Upgrade heating coils in main air handling systems to allow for higher capacity and increased efficiency.
- Continued replacement of pneumatic VAV boxes with electric controls.
- Upgrades in science labs to include more energy-efficient fume hoods and exhausts.
- Installation of a heat pump or heat exchanger for domestic hot water heating in science labs.
- Addition of 36 new EV charging stations at the New Westminster Campus.

#### **Coquitlam**

- Review of energy-efficient boilers and chillers.
- Installation of a harmonic filter at the switchgear to reduce harmonic distortion and mitigate overheating and power failures.
- Addition of 36 new EV charging stations at the Coquitlam Campus.

#### **Both campuses**

- Continue LED lighting upgrades at both campuses.
- Continue implementation of Energy Conservation Measures (ECMs) identified in the ASHRAE Level 2 audit.

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

### **Actions taken in 2025**

- Electricity totalling over 271,145 kWh was provided to electric vehicle (EV) drivers driving to campus. This is equivalent to 677,016 km or travelling from Douglas College's New Westminster Campus to St. John's, Nfld., and back again nearly 48 times (14,200 km/per round trip) in a Toyota Prius SE 2026.<sup>1</sup>
- The College currently has 18 Level 2 EV charging stations at the New Westminster Campus and 12 Level 2 EV charging stations at the Coquitlam Campus.
- No new fleet vehicles were acquired in 2025.

<sup>1</sup>Based on fuel efficiency of 4.5L/100km.

<sup>2</sup>According to BC Hydro, average consumption for non-electric apartments in B.C. is 198 kWh/month.

### **Plans for the future**

- Replace the College van with an electric vehicle when a suitable option becomes available.
- Potential expansion of College fleet, with EVs to reduce reliance on external vehicle rental companies.
- Addition of 36 new EV charging stations at the New Westminster Campus and 36 at the Coquitlam Campus.

### **C. Paper consumption**

#### **Actions taken in 2025**

- Continued use of the PaperCut reporting tool, which tracks overall and individual copier paper usage across the College.
- Data shows a reduction in paper consumption of 23%. The College exclusively purchased 100 percent recycled content paper and sugarcane bagasse paper in 2025.
- Douglas College has a Sustainable Procurement Policy and a Recycled Content Policy that guide paper purchases. Forest Stewardship Council (FSC) certification is considered when selecting paper products.

#### **Plans for the future**

- Continue monitoring paper consumption through PaperCut and maintain the shift to 100 percent recycled and sustainably sourced paper.

### **D. Fugitive sources (e.g., heat pumps, refrigerators, air conditioners)**

#### **Actions taken in 2025**

- Douglas College maintains records of all refrigerant gas categories and refilling volumes across both campuses. These emissions have been reported in the Clean Government Reporting Tool (CGRT).
- Regular inspections and tracking of refrigerant leakage are conducted as part of scheduled facility maintenance protocols.
- Scheduled service is performed to prevent leaks, ensure seals and components remain in good condition, and extend equipment lifespan.

#### **Plans for the future**

- Continue phased replacement of HVAC and refrigeration equipment with low-GWP (Global Warming Potential) refrigerant systems as equipment reaches end of life.
- Maintain refrigerant gas inventory and annual reporting through CGRT.

**2025 GHG emissions and offsets summary table**

<b>Douglas College 2025 GHG emissions and offsets summary</b>	
GHG emissions for the period Jan. 1–Dec. 31, 2025	
Total BioCO <sub>2</sub>	2,157
Total emissions (tCO <sub>2</sub> e)	220
Total offsets (tCO <sub>2</sub> e)	2,377
Adjustments to offset required GHG emissions reported in prior years	
Total offsets adjustment (tCO <sub>2</sub> e)	-23
Grand total offsets for the 2025 reporting year	
Grand total offsets to be retired for 2025 Reporting year (tCO <sub>2</sub> e)	2,354
Offset investment (\$)	\$58,850

**Retirement of offsets**

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

- As part of the College-wide annual risk assessment, issues related to the changing climate were identified and plans were made to continue managing them in 2025 and beyond.
- The changing climate and sustainability of natural resources are considered in the planning of all operational or infrastructure changes. e.g., consideration into a redesign of a water feature to conserve water.
- The New Westminster Campus has been approved by the city as a cooling centre for the public in the event of heatwaves.
- In 2025, climate risks were actively considered in capital planning, asset management, maintenance and operations, infrastructure upgrades, business continuity planning and enterprise risk management.
- The College allocates both capital and operational budget for climate-risk management. Operating, Major Routine, and CNCP capital funds are used for maintenance and energy conservation projects, with climate-risk mitigation incorporated where feasible.
- No significant extreme weather events with negative operational impacts were recorded at Douglas College facilities in 2025.

### **2B. Other sustainability initiatives**

#### **1. Travel**

- Continued use of Teams for meetings, reducing the need for intercampus travel.
- In 2025, the College had a total of 109 faculty and admin employees who took advantage of either the Go Green Allowance (for staff) or the Green Commute Allowance (for all other employee categories).

## 2. Waste

- Using our four-stream waste disposal system on both campuses, 92,855 kg (93 tonnes) of waste was diverted from the landfill in 2025, including 42,390 kg (42 tonnes) of cardboard and 22,265 kg (22 tonnes) of organics.
- At the New Westminster Campus, total diversion reached 63,175 kg (63 tonnes), comprising 29,370 kg (29 tonnes) of cardboard and 13,885 kg (14 tonnes) of organics.
- At the Coquitlam Campus, 29,680 kg (30 tonnes) was diverted, including 13,020 kg (13 tonnes) of cardboard and 8,380 kg (8 tonnes) of organics.
- Water bottle filling stations were used for 519,633 water bottle fills across all campuses (115,250 Anvil Office Tower + 354,220 New Westminster Campus + 50,163 Coquitlam Campus) in 2025, drastically reducing the number of single-use plastic bottles being sent to the landfill.
- Students ran clothing drives to reduce textiles being sent to the landfill.
- Managerial participation in Metro-Vancouver's Solid Waste Management Plan, Technical Advisory Committee.
- Employee participation in an Earth Day campus cleanup
- Plans are in progress to host a repair café on a regular basis, to reduce waste.

## 3. Procurement

- The College's Procurement Policy specifies that environmental considerations are key to each purchase of goods and services.
- Janitorial and landscaping services operators use eco-friendly cleaning and ice melt products as mandated by the College.
- Continued participation in the Feed BC program in partnership with our food services provider.

#### 4. Policy

- The College's 2025–2030 Strategic Plan establishes environmental sustainability as a core institutional commitment, with explicit goals to reduce the environmental impact of College facilities and operations, increase climate change and sustainability curriculum, increase community engagement on sustainability issues, and ensure administrative policies and processes incorporate climate change and sustainability considerations.
- Continued participation in the Sustainability Tracking Assessment & Rating System (STARS) program.
- Consideration of a policy to reduce small electrical appliances on campus, potentially saving the College \$3,000–\$4,000 a year through energy savings.

#### 5. Teaching and learning

- As part of the College's academic curriculum, several courses that focus on sustainability were offered, including two-year diplomas in Environmental Science and Environmental Studies; programs supported by Natural Resources Canada, BC Hydro, and Fortis BC; and the Practical Energy and Advanced Knowledge for Building Certificate (PEAK) program.
- The Commerce and Business Administration faculty ran many courses in which the principles and practices of sustainability were discussed. Examples of topics were ethics and social responsibility, climate change and its effect on supply chains, remanufacturing design for disassembly and recycling. They also taught a Sustainability and Corporate Social Responsibility course and a course about Environmental Economics.
- The Humanities and Social Sciences faculty ran 15 courses that included topics related to climate change and/or sustainability, including a new course called Climate Action. This resulted in the entire class organizing a climate action fair at the College as their final project.
- The College community was involved in an Earth Day campus cleanup.

#### Plans for the future

- The College was awarded a silver STARS rating in 2022 and is developing plans to achieve gold level.
- Develop a solid waste plan for the College, as well as site plans, conceptual designs and cost projections for primary waste areas at both campuses.
- Develop campus-wide guidelines to source sustainable and environmentally friendly materials for furniture, fixtures and equipment.
- Our food service providers are part of the [Waste Not 2.0](#) initiative, which involves tracking waste and using reusable containers.
- Participation in the City of New Westminster's Lime Bike Parking and electric scooter initiative.

- Creation of a Sustainability Coordinator position.
- Update of the College Sustainability Policy.
- Consideration of a sustainability committee to help promote and lead future sustainability initiatives.
- Review of water saving systems College wide to include more drought-resistant landscaping plants, washroom updates and upgrade of cafeteria equipment to more sustainable appliances.

### **2C. Success stories**

The completion of the upgrade of our Coquitlam Campus building envelope is a major project that brings big challenges and great rewards in terms of reducing carbon emissions. The project is funded by the Ministry of Post-Secondary Education and Future Skills (95 percent) and the College (five percent). Scheduled in phases over five years, it was completed in the spring of 2026. It is the College's largest single emissions-reduction capital project to date.

The project has exceeded the current building code BCBC 2018 requirements to reduce the energy needed to heat and cool the campus, while adapting the building exterior to make it more resilient to temperature extremes and weather events as a result of climate change. Features under consideration include:

- Installing larger, non-operable, low-E windows to increase both the insulation value and natural lighting of interior spaces.
- Integrating solar shading into the façade.
- Increasing the insulation value of the walls (R-12 to R-22, exceeding BCBC 2018 requirements).
- Adding vestibules in the atrium (reducing drafts and energy loss).

This multi-year renewal project seeks to integrate the most cost-effective design and construction solutions that will enhance and extend the usable life of the building for the next 75 years. The project is expected to result in measurable reductions in heating energy consumption and demonstrates how capital renewal can be used strategically to improve both energy efficiency and climate resilience simultaneously.

**Executive sign-off:**



May 30, 2026

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Signature

Date

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Chris Gardner

Associate Vice President, Facilities and Sustainability

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