Vancouver Community College

2024 PSO Climate Change Accountability Report

Submitted under the Carbon Neutral Government Regulation of B.C. Greenhouse Gas Reduction Target Act

LAND ACKNOWLEDGEMENT

Vancouver Community College respectfully acknowledges that we teach and learn on the traditional and unceded territories of the xʷməθkʷəy̓əm (Musqueam), Sḵwx̱wú7mesh (Squamish), and səlilwətaɬ (Tsleil-Waututh) peoples who have been stewards of this land from time immemorial.

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ABOUT VCC

Located in the heart of the city, Vancouver Community College (VCC) offers academic, cultural, and social environments that inspire relevant real-world training. Our on-campus facilities - including gourmet restaurants, an auto shop, and salon and spa - allow students to hone their skills and training while providing high-quality lower-cost services to the Downtown and East Vancouver communities.

OUR VISION STATEMENT

VCC – the first choice for innovative, experiential learning for life.

STRATEGIC INNOVATION PLAN

VCC's Strategic Innovation Plan (SIP) outlines VCC's commitment to becoming an innovative center of learning within the next 10 years. The plan brings our vision statement to life, and commits us to deliver bold new initiatives, build infrastructure, and explore new technologies for the benefit our students, employees, and wider community. It also presents new ways of doing things, changing business models, and evolving educational needs to ensure that we create optimal, accessible environments for learning success now and in the future.

Our values

Student success: We create an accessible environment where students build the skills, develop the attributes and gain the experience in the classroom, industry and community needed for success now and in the future.

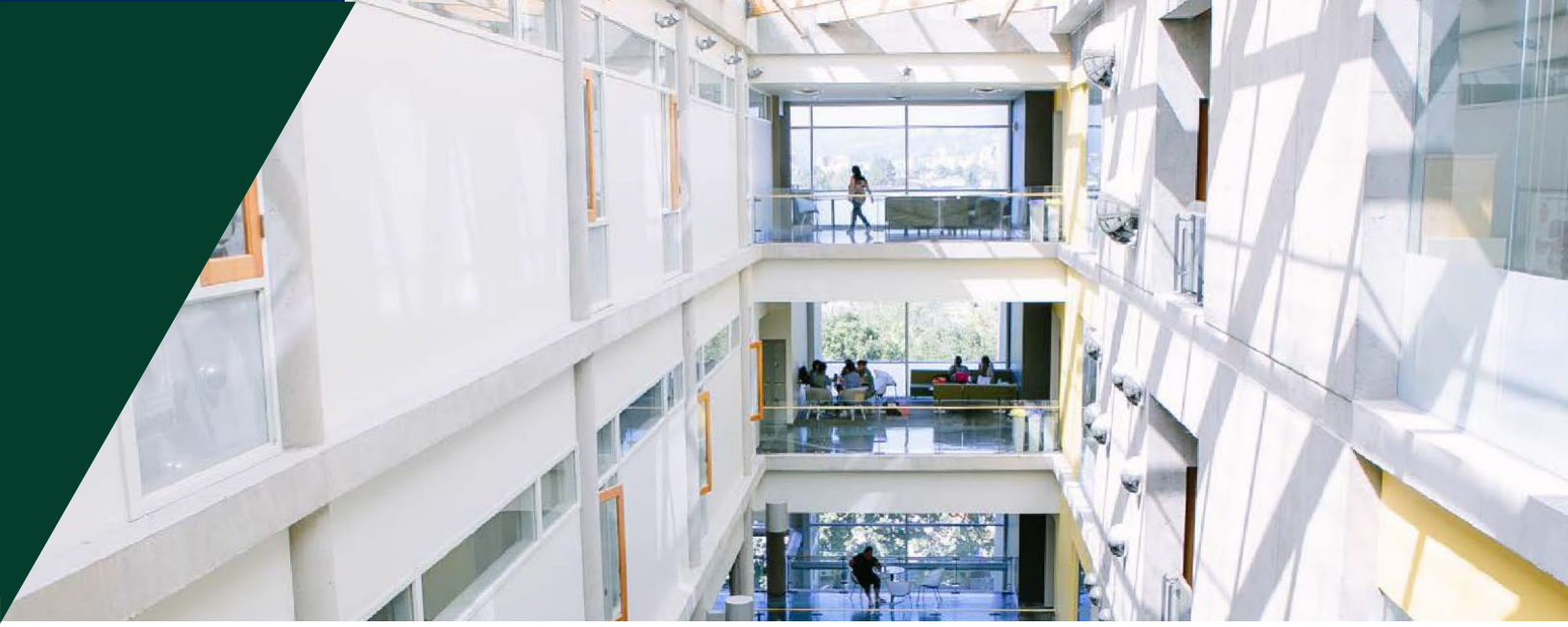
Excellence: We are committed to the highest educational quality, student support, and college operations that are responsive, innovative and relevant.

Reconciliation and Diversity: We respect and celebrate our differences, and are committed to the work of decolonization, accessibility and inclusivity for all.

Stewardship: We are responsible for overseeing the resources that are entrusted to us and are focused on working in the best interests of the college community.

DECLARATION STATEMENT

This PSO Climate Change Accountability Report for the period January 1, 2024, to December 31, 2024, summarizes our greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2024 to minimize our GHG emissions, and our plans to continue reducing emissions in 2025 and beyond.



EXECUTIVE SUMMARY

Vancouver Community College remains committed to carbon neutral operations and to embedding sustainability across learning, facilities, and community engagement. Our 2024 Climate Change Accountability Report confirms this leadership and outlines the progress we continue to make toward CleanBC targets.

Since 2007 we have cut campus energy use by 47% and greenhouse gas emissions by 64% while avoiding more than $7.6 million in utility spending.

In the 2024 calendar year we reported 1,411 tonnes of carbon dioxide equivalent emissions. Natural gas and purchased steam accounted for 93% of this total, electricity 7%, and paper a fraction of a per cent. All remaining emissions were fully offset under provincial regulation, preserving our carbon neutral status.

Key actions completed during 2024 include heat pump replacements and an electric forklift at Downtown, an extensive LED lighting retrofit and water saving valve upgrades at Broadway campus, and two BC Hydro Continuous Optimisation bundles that together save 81,000 kilowatt hours of electricity. Behaviour change campaigns such as the Holiday Shutdown and Space Heater initiatives trimmed a further 5% of annual energy.

Looking ahead, our capital roadmap focuses on deep electrification: converting steam and gas systems to heat pump service, installing air source heat pumps and electric boilers, and recovering waste heat in kitchens, labs, and exhaust streams.

Beyond energy, we advanced climate resilience through a detailed risk assessment of electrical and mechanical systems, maintained a 90% reduction in office paper by using sugar sheet stock, expanded waste diversion and furniture re-use, supported five Eco Grant projects, and involved more than 400 students through Welcome Day outreach. New and forthcoming programs in the Centre for Clean Energy and Automotive Innovation will offer clean technology careers.

These combined efforts keep VCC on track to meet or exceed 50% cut in building emissions by 2030 and a 60% cut in campus energy intensity by 2030. We will continue to pair capital investment with engagement, curriculum, and policy so that every learner, instructor, and employee contributes to a resilient, low carbon future.

VCC 2024 PSO Climate Change Accountability Report

By December 2024, VCC had made significant progress towards its goals, achieving a 47% reduction in energy use and a 64% reduction in GHG emissions compared to 2007 baseline. This demonstrates our ongoing commitment to environmental sustainability and aligns with the targets set in our Strategic Energy Management Plan.

Working across our campuses with the direct support and participation of our employees and students, we have achieved the following major milestones from 2007 to the end of the calendar year 2024.

>$7,690,000 in energy cost avoidance.

>113,510,000 ekWh in energy savings equivalent to the annual electricity use of approximately 11,300 BC households, about the same number of homes found across the combined Vancouver neighbourhoods of Mount Pleasant, Kitsilano, and Fairview.

64% in GHG emissions reduction equivalent to taking over 1,300 gas powered cars off the road for a year or planting more than 100,000 trees and letting them grow for ten years.

For more information about our 2024 Strategic Energy Management Plan (SEMP), please visit our website VCC Reports and Publications.

VCC is a carbon neutral institution. Following the Carbon Neutral Government Regulation of BC's Greenhouse Gas Reduction Targets Act, VCC measures and reports GHG emissions to the BC Climate Action Secretariat, and purchases credits to offset all remaining GHG emissions that cannot be reduced through our implemented energy conservations initiatives. In addition to these requirements, VCC prepares the Public Sector Organization (PSO) Climate Change Accountability Report annually.

EMISSION REDUCTIONS: ACTIONS TAKEN DURING 2024

Since 2013, VCC has partnered with BC Hydro through their Energy Manager Program to develop and implement our Strategic Energy Management Plan (SEMP). The SEMP supports VCC's commitment to increase energy efficiency and conservation by providing a framework for reducing energy consumption and its associated environmental impacts.

Having successfully reached our initial GHG reduction target in March 2021, VCC's SEMP includes a new energy reduction target and an action plan to continue advancing our efforts to reduce GHG emissions. Through the implementation of cost-effective management initiatives identified in the SEMP, VCC has worked towards reducing campus energy intensities in existing buildings. VCC has made significant progress in reducing energy intensities across existing campus buildings, achieving a 48% reduction in energy consumption as of December 2024.

During the last fiscal year, VCC completed the following projects to reduce energy use and GHG emissions:

DOWNTOWN CAMPUS

Heat Pumps Installation Yearly replacement of 12 ozone friendly heat pumps not only demonstrates our commitment to staying current with technology and prioritizing energy efficiency but also allows us to replace obsolete heat pumps. By identifying and replacing outdated models, we ensure that our end users benefit from the most advanced and efficient heating and cooling technology available. This proactive approach guarantees optimal performance while minimizing our environmental impact.

Electric Forklift Moving from gas to electric not only signals our commitment to cleaner operations but also improves indoor air quality for operators, reduces reliance on fossil fuels, and lays the foundation for broader fleet electrification across campus.

BC Hydro's Continuous Optimization Project concentrated on tightening valves, fixing schedules and restoring sensor control rather than installing new equipment. By targeting equipment that was left in continuous run time such as leaking steam coils, air handlers that never shut off and makeup air units left on after hours, we expect to save about 12,000 kilowatt hours of electricity and roughly 390 gigajoules of steam and natural gas each year.

Refrigerant Audit Comprehensive audit of all equipment containing refrigerants, ensuring alignment with the Ministry of Energy and Climate Solutions' mandate under the CleanBC Roadmap, which requires the quantification of fugitive refrigerant emissions. VCC has prioritized ongoing refrigerant tracking and emissions reporting using provincially approved methods, such as the mass balance and nameplate approaches, to support continued regulatory compliance and reduce emissions from refrigerant leaks.

BROADWAY CAMPUS

LED Lighting Upgrades Replacement of aging fluorescent T8 fixtures with DLC listed SubstiTUBE® IPS Generation 9 LED T8 lamps and high efficiency ballasts, boosting system efficacy by over 50% while eliminating mercury and reducing energy demand. This retrofit delivers light quality and occupant comfort but also drives meaningful cuts in electricity use and associated GHG emissions.

Installation of Flush Valves for Washrooms Ongoing installation of flush valves to proactively replace faulty and outdated valves to save water through increase performance, less water flow, valve failures and protect against flooding.

BC Hydro's Continuous Optimization Project concentrated on nine measures such as tightened schedules, restored sensor control and optimised pumps, fans and dampers across both buildings. The implemented bundle is projected to save about 69,000 kilowatt hours of electricity and almost 1300 gigajoules of fuel each year.

Refrigerant Audit Comprehensive audit of all equipment containing refrigerants, ensuring alignment with the Ministry of Energy and Climate Solutions' mandate under the CleanBC Roadmap, which requires the quantification of fugitive refrigerant emissions.

EMISSION REDUCTIONS: PLANS FOR 2025 AND BEYOND

The college has already implemented the most readily achievable optimisation measures at both campuses through over a decade of GHG reduction projects. Consequently, the opportunities remaining for GHG reduction from 2025 and beyond involve deeper capital-intensive initiatives that address residual steam and gas loads, finalise the shift to low carbon heating, and strengthen long term climate resilience.

Expanding on those accomplishments, VCC will continue to involve staff, students, and faculty in forthcoming initiatives across both campuses. By pairing additional energy reduction projects with targeted behaviour change campaigns, the college will further lower its annual greenhouse gas emissions while fostering an engaged VCC community.

The projects listed below outline the next phase of work required to achieve these goals.

Downtown Campus

- Electrify kitchen steam equipment to eliminate the high-pressure steam branch and replace gas appliances with electric alternatives.
- Recover heat from large exhaust air streams and inject it into the heat pump loops to offset steam use.
- Upgrade the steam distribution system by removing internal steam piping and converting heating coils and radiators to hydronic or heat pump service.
- Add central air source heat pumps to serve the heat pump loops, using gas or steam only as cold weather backup.
- Install a domestic hot water heat recovery chiller to capture surplus refrigeration heat for preheating domestic hot water.
- Replace three gas and one electric rooftop units with air source heat pump or dual fuel roof top units, removing a significant portion of direct combustion heating.
- Implement refrigeration heat recovery by converting air cooled condensers to water cooled units connected to the loops.
- Retrofit the lab make-up air handling unit as a water-source heat pump unit and optimize controls on other MUAs to reduce gas consumption.

BROADWAY CAMPUS

Building A

- Install and add to DDC lighting control panels on the Automotive department.
- Add EV Charging Station submeters to track our energy used for transportation.
- Decouple the domestic hot water system from the gas boilers and install a small electric boiler dedicated to DHW recirculation and top up heating.
- Install a stand-alone electric boiler to provide first stage hydronic heating, allowing existing gas boilers to run only for backup in cold weather.
- Electrify the three-gas fired make up air units (paint booth, welding, spray booth) with electric duct heaters or coils.
- Passive split thermosyphon loops (or water to water heat pumps) to recover exhaust heat for the MUAs when those units are replaced or better data are available.
- If Building A remains in service beyond its planned demolition window (2035–2040) outlined in the Campus Plan, our long-range strategy is to lower the hydronic loop temperature, upgrade coils as necessary to meet heating loads at reduced temperatures, and install an air source heat pump plant that can be shared with Building B. In the near term, given the building's uncertain future, investments should prioritize low-capital, short-payback energy conservation measures.

Building B

- Retrofit the hydronic heating system for lower supply water temperatures and install a central air source heat pump as first stage heating, retaining gas boilers for peak backup
- Conduct phased loop temperature trials during a heating season; upgrade only those VAV reheat coils that cannot meet loads at the lower temperature.
- At the end-of-life replacement of chiller HP-1, upgrade to a heat recovery model so condenser heat can be injected into the low temperature loop in shoulder months.
- Operate air handling units for increased mechanical cooling in winter, recovering that heat for the loop.
- With the new air source heat pump fully operational, install a heat recovery chiller or exhaust air heat recovery coils to capture additional heat for the hydronic loop, further reducing reliance on the gas boilers.

FLEET and EV CHARGERS

VCC now has four EV charging stations, including one located in an accessible parking lot to promote greater accessibility, and four additional chargers located in the Transportation Trades labs.

Our fleet is distributed across multiple departments to support both student training and campus operations.

Heavy Mechanical Trades operates a GMC W4500 diesel service truck, a Volvo ECR25 compact electric digger (20 kWh battery) used for hands on heavy equipment labs, and electric forklift. The department also manages a zero emission Freightliner eCascadia Class 8 electric semi-truck, whose 438 kWh battery delivers up to 370 km per charge.

Auto Service Technician gives learners exposure to a broad fuel mix with a Ford F-150 gasoline truck, a Toyota Mirai hydrogen fuel cell sedan, and a Rivian battery electric pickup added in 2023, and a Ford Focus.

Collision and Refinishing uses a Ford Ecoline 350 gasoline van for body repair practice and Ecoline 350 Truck.

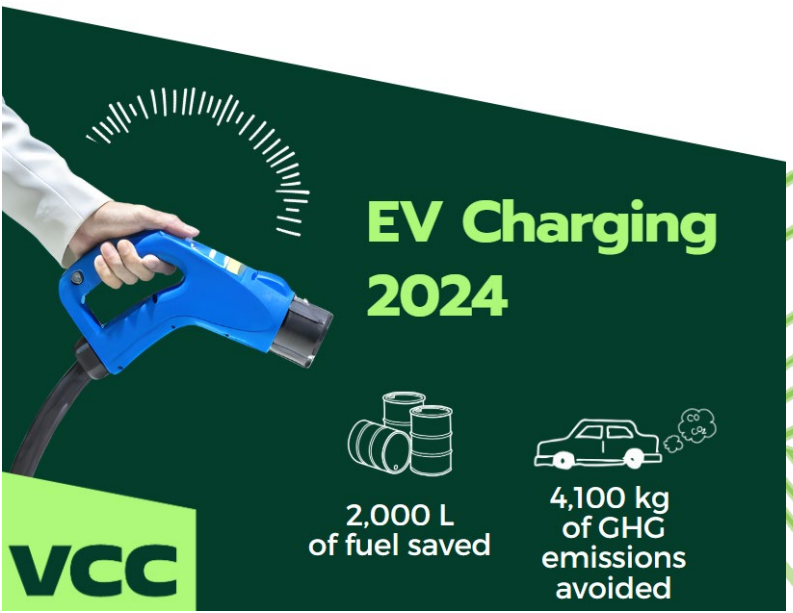
Safety and Security department oversees the college's 2019 Hyundai Kona EV, which is primarily assigned to Commercial Services but is also available to employees for college-related business.

Facilities department has recently replaced a gas-powered forklift with a new electric forklift used exclusively for campus operations.

Vehicles in VCC's fleet are used to support both student training and critical campus operations. By providing hands-on experience with a variety of drivetrains, including battery electric, fuel cell, and advanced diesel, VCC equips students with the diagnostic skills needed for high-voltage systems, power electronics, and hydrogen safety.

These competencies are already in demand across the transit, freight, and construction sectors, as British Columbia transitions away from internal combustion vehicles.

Together, VCC's instructional and operational fleets showcase practical pathways to a low-carbon transportation future and position the college as a leader in sustainable skills training.



PAPER CONSUMPTION

Since 2010, VCC has achieved a reduction exceeding 90% in the consumption of traditional paper products, reflecting a significant advancement in sustainable resource management practices. In 2019, VCC further reduced its greenhouse gas footprint by transitioning from conventional copy paper to Sugar Sheet copy paper, a more environmentally friendly alternative. While some departments have retained exceptions due to specific operational requirements, Sugar Sheet copy paper has become the college's predominant paper source.

Sugar sheet copy paper is produced using the residual waste of sugar cane and is a 100% forest free product. Throughout its entire life cycle, from sourcing and transportation to end of life disposal, it emits only 1.3kg of CO_2e per kg. This represents a significant 29% to 55% reduction in emissions compared to uncoated wood derived paper. In 2024 VCC purchased 3,600 packs of sugar sheet copy paper.

Between 2020 and 2022, VCC achieved a significant reduction in the consumption of 8.5 x 11 paper compared to 2019 levels. Building on this progress, the college has continued to implement new systems, processes, and software improvements that have further decreased paper usage since 2022. Notably, in 2023, the Finance Department transitioned from a paper-based expense approval workflow to an automated digital system, eliminating the need for printing and scanning documentation.

Overall, since 2010, VCC has reduced traditional 8.5 x 11 paper consumption by an impressive 90%, demonstrating a sustained commitment to environmental stewardship and resource conservation. These initiatives have effectively encouraged employees and students to adopt more sustainable printing practices.

In 2017, VCC's procurement department established **Green Purchasing Guidelines** emphasizing the use of certifications in specifications. The guidelines recommend citing all reliable certifications within a category to ensure sustainability. For instance, when specifying wood products, VCC requires certifications such as FSC, SFI, PECF, or CSA Z809-02, recognizing the importance of accommodating the diversity of BC forest product certifications. Furthermore, VCC procures paper through a post secondary educational sector procurement arrangement that undergoes yearly reviews to identify and adopt more environmentally friendly and sustainable options. This commitment to green procurement practices reflects VCC's dedication to promoting sustainability in its purchasing decisions across various product categories.

ENERGY CONSERVATION AND AWARENESS CAMPAIGNS

As an active participant in the BC Hydro Energy Wise Network (EWN) Program, VCC remains dedicated to engaging employees and students through behaviour change campaigns centered around energy conservation. VCC has successfully executed several impactful campaigns since we started in 2017, including:

- Lights Off, Green On
- Fans and Air purifiers
- Holiday Shutdown
- Take the Stairs, *if possible*
- Space Heater Replacement
- Bundle Up

With the support of funding and coaching from the EWN, VCC accomplished the implementation of two behavior change campaigns in 2024. These campaigns resulted in a 5% reduction in VCC's total annual energy consumption this past year.

Great Annual Holiday Shutdown Campaign

In 2024, VCC continued its annual tradition of encouraging staff to 'shut down' for the holidays. This campaign helps save energy and raises awareness about energy-saving opportunities, such as turning off monitors, unplugging small appliances, and closing blinds. A handy checklist was provided to assist employees in identifying these opportunities, and participants were asked to submit a completed checklist as confirmation of their efforts.

At the same time, the Facilities Management team reduced heating and ventilation across all buildings. Since these systems consume a large portion of energy, turning them off during the holidays has a significant impact on reducing VCC's carbon emissions. Over ten different departments participated in this year's holiday campaign.

Space Heaters Campaign

Our second behaviour change campaign "Space Heaters," began in October 2024 and concluded in February 2025. This campaign specifically targeted VCC employees, utilizing communication materials to encourage individuals to use a personal space heater before requesting room temperature increase to Facilities Management department.

Over the last decade, VCC's Facilities Management team has been distributing energy efficient space heaters that consume 89% less electricity compared to conventional heaters. To date, over 190 of these units have been deployed, resulting in a significant decrease in electricity usage from over 175,000 kWh to 68,000 kWh annually, translating to a total annual saving of over 106,000 kWh.

By conserving over 106,000 kWh of electricity each year, the environmental impact of this initiative is equivalent to approximately avoiding 20,000 kg of CO2 emissions, which is comparable to the emissions generated from driving over 183,000 km by car.

In 2023, VCC implemented the first Facilities Management Operational Standard FM-01 Space Heaters, which strives to maximize energy efficiency, minimize costs, reduce emissions, and enhance the safety of building occupants.

Air Purifiers and Fans Efficiency Campaign

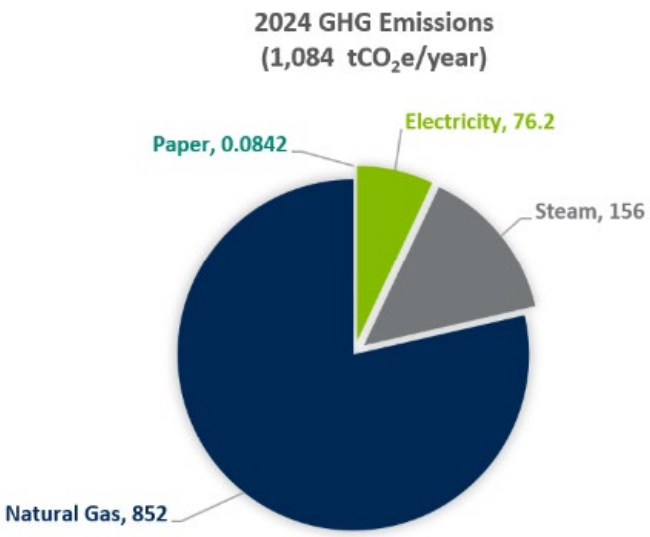
The Air Purifiers and Fans Efficiency Campaign was launched after an internal audit revealed a preventable 9 kW increase in daytime plug load caused by these devices running during breaks and after hours. The campaign promotes the habit of switching off non-essential comfort equipment to achieve immediate, cost-effective electricity savings. Moreover, it serves to reinforce an institutional culture of collective environmental stewardship and aligns strategically with VCC's commitment to sustaining a 50% reduction in greenhouse gas emissions relative to the 2007 baseline by 2030. To further optimize energy savings, Timer-controlled power strips were installed at high-use outlets to reduce runtime by at least one third. Complementing these efforts, the Operational Standard FM-02 is currently pending review.

EMISSIONS SUMMARY

In 2023, VCC aligned its reporting framework with the Climate Change Accountability Act by resetting its emissions baseline year to 2007, consistent with the standard established under the CleanBC initiative. CleanBC mandates province-wide greenhouse gas (GHG) reduction targets of 40% by 2030, 60% by 2040, and 80% by 2050, using 2007 as the reference year. For the public sector specifically, it sets an additional target of a 50% reduction in building-related emissions by 2030.

To ensure methodological consistency and improve the accuracy of longitudinal assessments, all historical emissions data have been recalculated using the most recent emission factors embedded in the provincial Clean Government Reporting Tool. This tool standardizes GHG reporting across post-secondary institutions, health authorities, and government ministries.

These adjustments provide a more precise depiction of VCC's progress relative to provincial climate goals and enable consistent, year-over-year performance comparisons.



Emissions Breakdown

In 2024, VCC's total greenhouse gas emissions were 1,084 tCO_2e, with over 99% stemming from building energy use.

- Natural gas: 852 tCO_2e (79%)
- Steam: 156 tCO_2e (14%)
- Electricity: 76 tCO_2e (7%)
- Paper: 0.084 tCO_2e

Compared to 2023 levels, VCC has decreased total organizational emissions by 9% and has achieved a 63% reduction in emissions compared to our 2007 baseline.

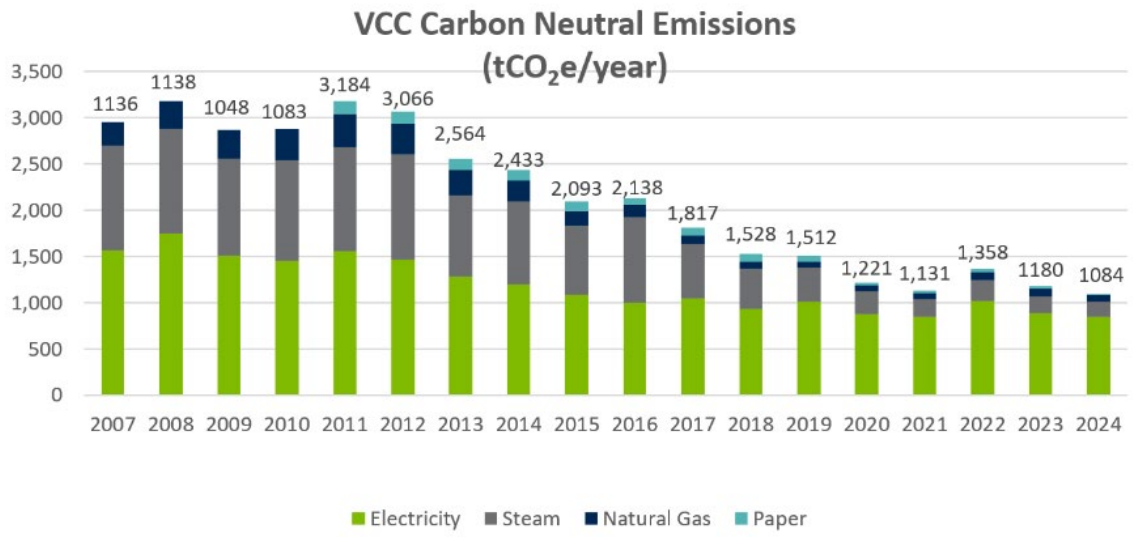


Figure 2: Historical Annual Emissions 2007-2024

Figure 2 shows that our carbon neutral emissions have fallen steadily from a peak of roughly 3,184 tCO_2e in 2011 to 1,084 tCO_2e in 2024, a reduction of about 66%. Natural gas and steam have delivered most of the cuts, while electricity related emissions have remained comparatively stable.

Paper appears only from 2010 onward because we do not have paper consumption data for 2007–2009. Since 2010 we have actively pursued energy efficiency projects, fuel switching, and digital workflows, driving the long term decline visible in the graph.

2024 GHG EMISSIONS AND OFFSETS SUMMARY TABLE

Vancouver Community College 2024 GHG Emissions and Offsets Summary GHG emissions for the period January 1 - December 31, 2024	
Total BioCO2	348
Total Emissions (tCO2e)	1411
Total Offsets (tCO2e)	1411
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO2e)	0
Grand Total Offsets for the 2024 Reporting Year	
Grand Total Offsets to be Retired for 2024 Reporting Year (tCO2e)	1411
Offset Investment ($)	1411 x $25 = 35,275

RETIREMENT OF OFFSETS:

In accordance with the requirements of the Climate Change Accountability Act and the Carbon Neutral Government Regulation, Vancouver Community College is responsible for arranging for the retirement of the offsets obligation reported above for the 2024 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.

PUBLIC SECTOR LEADERSHIP

The Energy Team convenes monthly to review institutional commitments, operational guidelines, procedures, and budget allocations. These regular meetings play a critical role in ensuring that VCC remains aligned with its greenhouse gas (GHG) reduction targets. Increasingly, the agenda includes a strategic focus on behaviour change and climate adaptation initiatives, reflecting a proactive approach to mitigating climate-related risks and enhancing institutional resilience.

To further minimize our greenhouse gas (GHG) footprint, VCC will continue to pursue a multifaceted strategy encompassing capital planning investments, such as CleanBC's Carbon Neutral Capital Program (CNCP) funding and the renewal of clean energy infrastructure, alongside the development of institutional policies and processes that support long-term sustainability goals. These efforts will be complemented by targeted behavioural campaigns designed to foster widespread adoption of sustainable practices among staff and students.

Future initiatives will include the implementation of energy-efficient technologies, equipment upgrades, HVAC system optimization, enhancements to Direct Digital Control (DDC) systems, and the electrification of the Culinary Arts facilities at the Downtown Campus. A key element of this strategy is the ongoing construction of the Centre for Clean Energy and Automotive Innovation (CCEAI) at the Broadway Campus.

This new facility, designed with all-electric laboratories, a high-performance building envelope, and a mass timber structure, is expected to significantly reduce future operational emissions. It also serves as a tangible expression of VCC's commitment to Public Sector Climate Leadership. By preparing the next generation of zero-emission vehicle technicians and clean energy professionals, CCEAI will play a pivotal role in advancing British Columbia's transition to a low-carbon economy and enhancing climate resilience across the province.

CLIMATE RISK MANAGEMENT

Vancouver Community College is proactively addressing the potential impacts of climate change on its infrastructure to ensure reliability, operational efficiency, and occupant safety across its campuses. Through a comprehensive **Climate Resilience Assessment** of the electrical and mechanical systems in its buildings, VCC identified vulnerabilities associated with climate change and extreme weather events. This risk assessment answered critical questions about the likelihood, timing, and consequences of negative climate related events. A consulting team carried out the assessment by developing a matrix that measured interactions between building components and climate parameters, assigned severity scores to those interactions, and categorized risks as low, medium, or high.

Proposed climate resilience measures focus on medium and high-risk components. In collaboration with the Safety and Security Department, Facilities Management has integrated these risks into the **VCC Risk Registry** to enhance institutional resilience and preparedness across all campuses.

OTHER SUSTAINABILITY INITIATIVES

In 2022, the **Environmental Sustainability Advisory Group (ESAG)** was formally established as VCC's official 'green team', with a mandate to advance the institution's commitment to environmental sustainability through both the enhancement of existing initiatives and the development of new strategies centered on climate justice and emergency management. ESAG serves in an advisory capacity to the College's Senior Leadership Team, providing strategic guidance on environmental responsibility and initiating projects that foster sustainability within the institution and its broader community.

Prior to this, the Environmental Community Action Team (ECAT) functioned as VCC's designated 'green team', advising the Operations Council. To establish a more direct line of engagement with senior leadership and elevate the influence of sustainability planning within institutional decision-making, ECAT was dissolved and reconstituted as ESAG in 2022.

Sponsored by ESAG, **Small Eco Grants** range in value of up to $3,000 and are available to current VCC students and employees who wish to initiate projects that advance sustainability through education, research, service, or campus operations.

By supporting a diverse range of initiatives, the fund empowers members of the VCC community to address the sustainability issues they find most meaningful. In doing so, it contributes to cultivating a culture of sustainability both on campus and within the broader community, while inspiring others to undertake similar actions.

In 2024, ESAG received five applications, 40% of which were submitted by students. Of these, four projects were successfully implemented, with one deferred for implementation in 2025.

The implemented projects include: **Student Waste Separation video** a short instructional film created by student Harleen Kaur demonstrating the proper use of VCC's colour coded recycling stations; **Bee Fest 2024** a one-day outreach event held at the Broadway campus that attracted approximately 175 participants, offering hands-on pollinator activities and education on Mason bees; **David Suzuki Butterflyway Garden** an expansion of native pollinator plantings at Broadway with additional species scheduled for introduction throughout the summer season; And the **Sustainability Study Room** an eco inspired study area at the Downtown Campus with integrated biophilic design elements such as a locally commissioned forest-themed mural and ergonomic features like a height-adjustable desk to foster an inclusive environment. This space is purposefully designed to enhance cognitive focus and contribute positively to student wellbeing and academic performance.

Welcome Days at VCC

During the Winter and Fall Welcome Days at VCC's Downtown and Broadway campuses, approximately 400 students engaged in discussions about the College's Eco Grants, CleanBC-aligned emissions reduction targets, and practical actions to address climate change.

Students contributed their own definitions of sustainability, articulated personal environmental goals, and expressed preferred methods of ongoing involvement. This valuable feedback now informs the development of targeted behaviour change strategies and engagement initiatives.

By fostering meaningful dialogue and empowering students as active participants, VCC strengthens community engagement, supports student leadership in sustainability, and advances its broader mission to cultivate an environmentally responsible campus culture aligned with global climate goals.

The VCC **Environmental Sustainability Strategy 2023-2028** functions as a comprehensive roadmap designed to establish VCC as a leader in environmental stewardship within the post-secondary education sector. Acknowledging its responsibility for environmental impacts, the institution seeks, through this strategy, to systematically integrate sustainability values and practices across all organizational levels over the five-year period. Complementing this strategic framework, VCC has developed the Environmental Sustainability Strategy Implementation Workbook, a practical tool intended to facilitate the planning and execution of initiatives aligned with the strategy's objectives.

Since 1998, VCC has upheld its **Environmental Policy** designed to ensure that all institutional activities are conducted with a commitment to responsible environmental stewardship. This policy mandates the integration of environmental considerations into all planning and decision-making processes, actively supports the initiatives of the VCC Green Team, and prioritizes timely responses to emerging environmental risks and concerns.

Following the 2022 **Indoor Air Quality Audit**, VCC shifted from basic monitoring to proactive optimization across both campuses. In 2024, the Broadway campus completed the second phase of its **Continuous Optimization** program, implementing refined air handler schedules, narrower supply air temperature bands, and occupancy-responsive ventilation. Concurrently, faulty CO_2 sensors have been identified, catalogued, and are being systematically replaced to ensure accurate readings. At the Downtown campus, a comprehensive CO_2 sensor replacement and calibration initiative has commenced to maintain the effectiveness of demand-controlled ventilation. Together, these upgrades enable the automation system to dynamically adjust outdoor airflow and temperature, reduce excess fan and heating energy consumption, and provide validated indoor air quality dashboards. These improvements enhance occupant health and resilience during wildfire smoke events while advancing VCC's energy efficiency and carbon reduction goals.

The college has taken steps to promote sustainable and fiscally responsible practices through its **Furniture Re-Use and Re-Upholstery** program. By partnering with local reupholstery service providers, VCC can extend the life of its existing furniture inventory while reducing landfill waste and minimizing its impact on the environment. Refurbishing existing furniture allows VCC to create high quality, customizable pieces. In addition to the environmental benefits, refurbishing existing furniture is a much quicker process than ordering new, which means less disruption and impact on academic and administrative operations.

As part of its commitment to promoting **sustainable transportation**, VCC has designed and built first of its kind secured **e-bike storage** providing, free e-bike charging stations, lockable secured battery storage, bike racks and additional end user service support including fully integrated commercial size air pump, Fix-It bike station w/tools for students and employees to complete small repairs and bike tune up while on campus.

VCC is facilitating sustainable transportation by offering no-interest **Bike Loan** program. This initiative supports employees seeking to adopt or enhance cycle commuting practices, thereby advancing low-carbon transportation alternatives and reinforcing the institution's overarching commitment to environmental sustainability.

Nominations for **Employee Excellence Awards** are invited annually as part of VCC Day celebrations. In 2024, the Excellence Award for Innovation placed a special focus on sustainability initiatives. That year's award was presented to the VCC Library in recognition of its outstanding contributions to

environmental stewardship. The Library's efforts span waste reduction and reuse programs, such as the Free Books and Reuse Binder initiatives, emailed receipts, full-semester textbook loans, a growing e-book catalogue, and a lending pool for technology and sports equipment ranging from GoPro cameras to badminton sets. It has also implemented targeted recycling infrastructure with dedicated collection points for batteries, pens, and other materials, and has established environmental learning and engagement spaces. These include curated resource lists on climate change and the UN Sustainable Development Goals (SDGs), the mobile Sustainability Tent at the Broadway Campus, and a nature-inspired Sustainability Study Room at the Downtown Campus. Collectively, these initiatives reduce material consumption, encourage circular practices, and cultivate sustainability literacy, aligning directly with the priorities outlined in the VCC Environmental Sustainability Strategy.

Employee Workshops and Community Engagement

ESAG, in collaboration with the People Services Department, is advancing sustainability education at VCC by offering **Employee Workshops** focused on environmental awareness and behavioural change. These sessions are designed to enhance understanding, present actionable options, and foster long-term commitment to sustainable practices, including the promotion of active transportation. Through this initiative, both employees and students are engaged in developing the knowledge and habits necessary to support VCC's broader environmental goals.

Move for the Planet Series: A series of workshops and activities encouraged active transportation, climate action, and energy conservation.

Go by Bike Week: VCC encouraged sustainable commuting by supporting students and staff to bike to campus through resources and incentives.

Bike Friendly Webpage: The refreshed webpage provides up to date cycling maps, secure bike storage information, and support for active commuters.

Gender Neutral Showers at Broadway Campus: New gender-neutral showers were added to make cycling and active commuting more inclusive and accessible. Building a Sustainability Focused Campus Culture

Holiday Market: Sustainable Card and Candle Making: Hands on workshops taught sustainable holiday crafts, promoting waste reduction and eco conscious practices.

Food Resiliency Fair at the Downtown campus brought our community and share key food resources.

Cross-Departmental Environmental Stewardship

VCC's Culinary and Commercial Services departments have implemented a range of sustainability-focused operational practices aimed at improving water, electricity, and overall energy management. These initiatives reflect a systematic approach to embedding environmental stewardship within daily operations and include the adoption of resource-efficient technologies, behavioural interventions, and procurement strategies aligned with sustainable development principles:

- Ongoing procurement and integration of recyclable take-away packaging and compostable cutlery to reduce single-use plastic waste.
- Installation of timers on kitchen hood ventilation systems to optimize energy use during non-operational hours.
- Implementation of student-led uniform laundering practices, contributing to substantial reductions in campus water consumption.
- Transition from printed to digital instructional materials to minimize paper use and associated environmental impacts.
- Utilization of blast chillers as an alternative to water-based cooling methods for large quantities of hot food, thereby conserving water resources.
- Strategic placement of signage in dishwashing areas to encourage reductions in unnecessary water use.
- Facilitation of departmental purchases of reusable coffee cups and water bottles to support waste reduction and foster a culture of sustainability.

VCC's IT Team has implemented a screen **timeout/lock functionality** across the college, which not only helps improve digital security but also reduces electricity usage. This applies to computers in classrooms where they often have intermittent use. IT has also implemented timeouts on all VCC's printing devices which puts them to sleep after a predetermined amount of inactivity.

Recycle & Waste Reduction Initiatives

VCC has over 160 waste stations across all buildings. Students, staff, faculty, and the public discard their waste in the receptacles provided, where it is then consolidated into larger bins and collected by our primary waste hauler, Maple leaf Disposal. Their services include the collection of VCC's garbage, organics, mixed paper, plastics, clean wood, and metal recycling streams. Once sorted, materials are baled and distributed to different companies further processing.

VCC has also implemented an operational procedure for the disposal of surplus assets to ensure assets that are no longer of use are collected by BC Action or disposed properly and in a way that minimizes risks to the environment.

Through BC Net VCC waste is handled by Maple Leaf. This includes waste that cannot be recycled, cardboard & paper, organics, and metals.

Construction Waste

Mixed construction waste generated at VCC is efficiently managed by Eagle Disposal or Ecowaste Industries Ltd, both located in the city of Richmond. Ecowaste Industries Ltd offers soil

bioremediation, custom soil manufacturing, and wood recycling services. In line with VCC's commitment to sustainability, Eagle Disposal adheres to the Canadian government's ZERO WASTE

2040 strategic vision for Vancouver. Furthermore, VCC's Contractor's Guide stipulates that contractors are responsible for disposing of their generated waste in accordance with VCC

Batteries

Nickel, lithium, lead, and alkaline battery waste generated at VCC is collected by our Facilities, Security, Receiving, and Library departments, and sent to Call2Recycle for safe processing and recovery in accordance with industry and regulatory standards. In 2022, we were able to add one more collection box, bringing the total to six collection boxes spread across both campuses. From January 2022 to March 2024, VCC recycled over 40 kg of batteries.

Lights & Filters

Light bulbs, light tubes, air filters and drywall waste generated by VCC are managed by VCC's facilities manager service provider, Angus Consulting Management Limited (ACML).

Tonner

The toner cartridge generated at VCC is sent to Ricoh for proper recycling. A toner recycling box has been placed in the Receiving department of both campuses. Ricoh will receive any type of toner.

Medical Waste

Manage all regulated substances such as medical waste, sharps, pharmaceuticals, and hazardous waste is managed using STERICYCLE, a recycle company.

A RESILIENT AND LOW-CARBON FUTURE

This report affirms Vancouver Community College's enduring commitment to climate action, institutional transparency, and evidence-informed continuous improvement.

Looking ahead, the College will remain aligned with provincial climate objectives, while strategically investing in initiatives that advance a low-carbon and climate-resilient future.

We extend our gratitude to all readers and stakeholders for engaging with this report and for supporting VCC's collective pursuit of environmental sustainability.

Vancouver Community College

vcc.ca

Downtown campus

250 W Pender Street Vancouver, BC

Broadway campus

1155 E Broadway Vancouver, BC

Executive Sign Off:

Signature **Date** May 31, 2025

Jamie Choi, Executive Director, Finance & CFO