



**Vancouver
Community
College**

2023 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 x^wməθk^wəyəm (Musqueam), Skwxwú7mesh (Squamish), and səliwətał (Tseil-Waututh) peoples who have been stewards of this land from time immemorial.

Contents

- ABOUT VCC4
 - OUR VISION STATEMENT4
 - STRATEGIC INNOVATION PLAN.....4
- DECLARATION STATEMENT.....4
 -5
- EXECUTIVE SUMMARY5
- EMISSION REDUCTIONS: ACTIONS TAKEN DURING 2023.....7
 - DOWNTOWN CAMPUS7
 - BROADWAY CAMPUS.....8
 - STUDIES FOR BOTH CAMPUS8
 - PAPER CONSUMPTION8
 - ENERGY CONSERVATION AND AWARENESS CAMPAIGNS9
 -10
- EMISSION REDUCTIONS: PLANS FOR 2024 AND BEYOND11
 - BROADWAY CAMPUS11
 - DOWNTOWN CAMPUS11
- EMISSIONS SUMMARY12
 -12
- 2023 GHG EMISSIONS AND OFFSETS SUMMARY TABLE13
- RETIREMENT OF OFFSETS:13
- PUBLIC SECTOR LEADERSHIP13
 - CLIMATE RISK MANAGEMENT14
 - OTHER SUSTAINABILITY INITIATIVES.....14
 - SUCCESS STORIES21
 -23

VCC 2023 PSO Climate Change Accountability Report

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 our 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

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

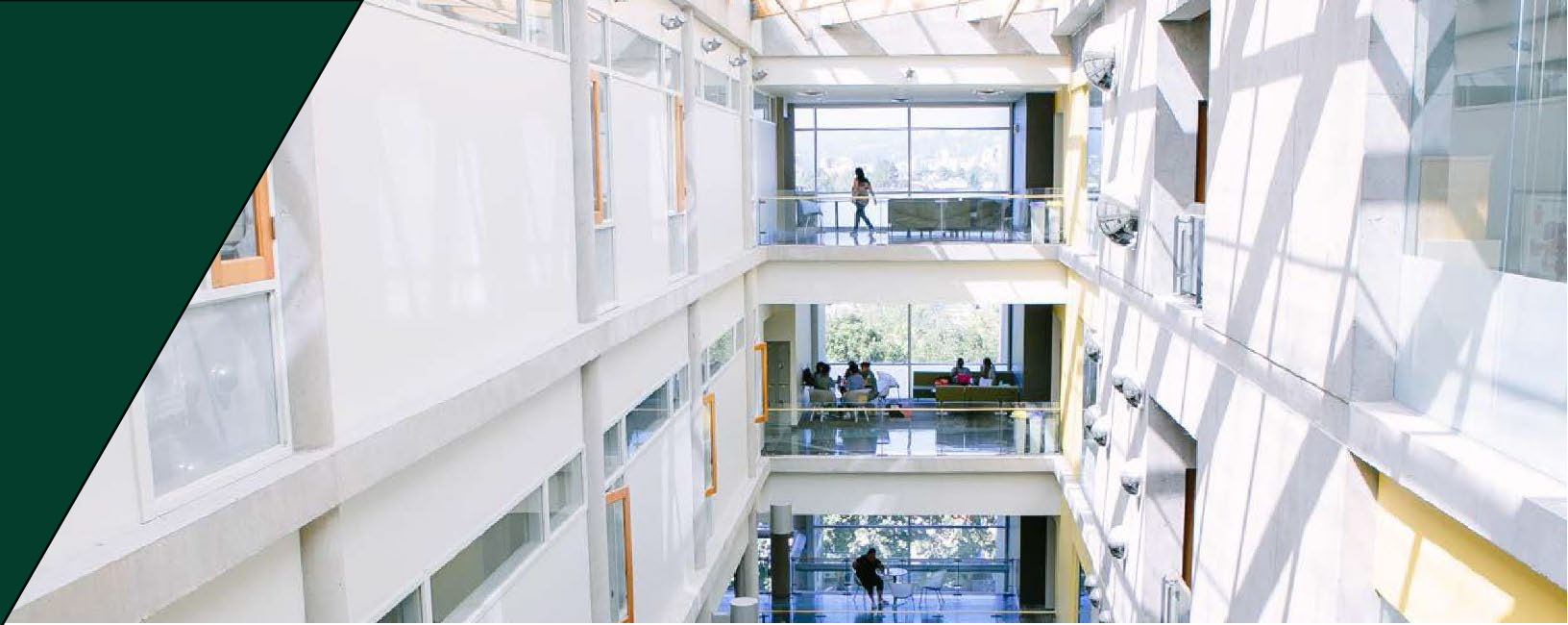
Excellence: We are committed to the highest educational quality, student support, and college operations that are responsive, innovative, and relevant.

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.

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, 2023 to December 31, 2023 summarizes our greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2023 to minimize our GHG emissions, and our plans to continue reducing emissions in 2024 and beyond.



EXECUTIVE SUMMARY

Vancouver Community College recognizes the importance of a healthy environment for both present and future generations. We have been dedicated to protecting the natural environment by minimizing our daily impacts and fostering a more sustainable community through our program offerings. Our goal is to demonstrate leadership and accountability in environmentally conscious decision-making across all our operations, inspiring our students, staff, and graduates to extend these sustainable practices beyond the classroom, thereby motivating others in their homes, communities, and workplaces.

Over the past eleven years, VCC has participated in BC Hydro's Energy Management Program and has made significant progress toward achieving our environmental sustainability goals. To continue advancing our energy reduction efforts, VCC has developed a three-year Strategic Energy Management Plan (SEMP) to identify further opportunities for reducing our energy consumption.

As part of our annual Strategic Energy Management Plan, VCC commits to seeking innovative and improved practices to reduce our greenhouse gas (GHG) emissions. In 2022, we aimed to achieve 50% reduction in energy use and a 60% reduction in GHG emissions compared to the levels in 2010/2011 by March 2025.

VCC will reduce campus **energy intensity** in existing buildings by 50% by the 2024/2025 fiscal year and by 60% by the 2029/2030 fiscal year, compared to the 2010/2011 fiscal year levels, through the implementation of cost-effective energy management initiatives. Additionally, VCC will reduce campus greenhouse gas (GHG) intensity by 60% by 2030 compared to a 2007 baseline.

VCC 2023 PSO Climate Change Accountability Report

By December 2023, VCC had made significant progress towards its goals, achieving a 44% reduction in energy use and a 57% reduction in GHG emissions. This demonstrates our ongoing commitment to environmental sustainability and aligns with the targets set in our Strategic Management Plan.

Working across our college campuses with the direct support and participation of our staff, faculty, and students, we have achieved the following major milestones as of December 2023:

>\$5,700,000 in energy cost avoidance from 2010 to the end of the calendar year 2023.

>78,682,000 kWh in energy savings, equivalent to the annual energy use of 7,168 BC households.

A total **reduction of 56% in GHG emissions** compared to 2010/11 levels.

To celebrate surpassing \$5 million in energy cost avoidance since 2010, we have produced a case study featured at the end of this report. This case study effectively communicates and showcases our success in meeting and exceeding our energy cost avoidance and GHG reduction targets.

For more information about our 2023 Strategic Energy Management Plan (SEMP), please visit our website at www.vcc.ca.

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 conservation initiatives. In addition to these requirements, the PSO Climate Change Accountability Report is prepared each year by VCC.



EMISSION REDUCTIONS: ACTIONS TAKEN DURING 2023

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 44% reduction in energy consumption as of December 2023.

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

DOWNTOWN CAMPUS

Heat Pumps Installation: Our 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 and contributing to a sustainable future.

Direct Digital Control (DDC) Upgrades: In offices and classrooms VCC upgraded 300 thermostats to display CO2 levels continuously, eliminating the need for occupants to press a button to obtain this information. This improvement not only enhances convenience but also contributes to alleviate climate change anxiety. The project was a success at our Broadway campus, and we aim to provide the same service at our Downtown campus.

DTN Condensate Tank Renewal: We replaced the mechanical equipment that had reached the end of its life with a new unit, although the new unit consumes more power. Nonetheless, we opted for a more modern system that can be repaired in case of failure.

Heat Stress Assessment and Exposure Plan: VCC is committed to safeguarding the health and safety of employees and visitors exposed to heat stress in our downtown campus kitchens. Our Heat Stress Exposure Control Plan (HSECP) aims to mitigate heat stress risks during summer months, particularly for Culinary Instructors and contractors in non air-conditioned kitchens. This plan includes implementing training and control measures such as engineering controls, administrative controls (like work-rest schedules), and provision of personal protective equipment.

VCC 2023 PSO Climate Change Accountability Report

BROADWAY CAMPUS

Direct Digital Control (DDC): System Entelivault upgrade - archiving add-on for DDC allows for up to 100,000 trend logs to be stored. This provides VCC to analyse trends for troubleshooting and energy savings. Outside lights to be connected to DDC allows the automatic scheduling of outside lights to follow seasonal light requirements, saves energy by only having lights on when they are needed.

Installation of Flush Valves for Washrooms: Ongoing installation of flush valves to proactively replace faulty and outdated valves in order to save water through valve failures and also protect against flooding.

EV Charging Stations: VCC has expanded its EV charging infrastructure beyond the downtown campus to include two new level 2 EV charging stations at the Broadway campus parking lot, bringing the total to three stations. The most recent installation is located in the accessible parking area to promote inclusivity, while another serves designated car share spots, complementing the existing station in the main parking lot. These additions enhance convenience for students and staff, fostering inclusivity and sustainability. To encourage the use of EV cars, our charging stations offer the first 2 hours free of charge.

STUDIES FOR BOTH CAMPUS

Decarbonization Study: This project focuses on identifying opportunities for additional greenhouse gas (GHG) reductions across VCC campuses through the BC Hydro / CleanBC Custom Program. Emphasizing VCC's commitment to climate adaptation, the study integrates climate resilience considerations into all proposed solutions to enhance future climate readiness. Our approach includes a comprehensive site assessment, aligning upgrades with asset renewal cycles, and conducting life cycle cost analysis to assess the true cost-benefit of decarbonization options across mechanical, electrical, and energy systems.

PAPER CONSUMPTION

Since 2010, VCC has achieved a remarkable reduction of >80% in paper consumption. In 2019, VCC switched from traditional copy paper to sugar sheet copy paper to decrease our GHG footprint further. Some exceptions have been applied for different departments based on operational needs, but Sugar Sheet copy paper has become our primary 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 CO₂e per kg. This represents a significant 29% to 55% reduction in emissions compared to uncoated wood-derived paper. In 2023 VCC purchased 3,600 packs of sugar sheet copy paper.

From 2020 to 2022, Vancouver Community College (VCC) experienced a significant 56% annual decrease in 8.5 x 11 paper consumption compared to 2019, primarily attributed to the impact of the COVID-19 pandemic. Building on this trend, VCC has continued to implement systems, processes,

VCC 2023 PSO Climate Change Accountability Report

and software improvements resulting in an additional 33% reduction in paper consumption compared to 2022. These efforts have successfully encouraged students, staff, and faculty to adopt more sustainable printing practices developed over the past years. Over the past year, the Finance Department has replaced the paper-based expense approval process with an automated system, thereby eliminating the need for printing and scanning documentation.

Overall, since 2010, VCC has achieved an impressive 87% reduction in 8.5 x 11 paper consumption, showcasing the institution's ongoing commitment to environmental stewardship and resource conservation.

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, PEFC, 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 students, staff, and faculty through behavior change campaigns centered around energy conservation. VCC has successfully executed several impactful campaigns since we started in 2017, including:

- Lights Off, Green On
- Covid-19 Vampire Power
- 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 2023. These campaigns resulted in a 5% reduction in VCC's total annual energy consumption this past year.

VCC 2023 PSO Climate Change Accountability Report

turning off monitors, unplugging small appliances and closing the blinds. A handy checklist was provided to assist staff in identifying opportunities, and participants were requested to submit a completed checklist as confirmation of their efforts. By implementing these simple steps, we can make a significant impact on our energy consumption and contribute to a greener environment.

At the same time, the Facilities Team reduced heating and ventilation in all the buildings. These systems consume a large portion of energy, and turning them off for the holidays has a significant impact on reducing VCC's carbon emissions.

We had a record-breaking year when it came to participation with over 18 different departments getting involved this holiday season.

Space Heaters

Our second behaviour change campaign “Space Heaters,” began in December 2023 and concluded in February 2024. This campaign specifically targeted VCC’s staff, utilizing communication materials to encourage individuals to use a personal space heater before requesting room temperature increase to Facilities. Digital and print signage was posted throughout both campuses to enhance awareness regarding staying warm, remaining active, and implementing layered clothing as a means of combating the cold.

Over the last nine years, VCC's Facilities 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.

Since 2023, VCC has 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.

The graphic features a dark green background with a hand holding a blue EV charging cable on the left. The text 'EV Charging' is prominently displayed in large, light green letters. Below this, two icons represent fuel and emissions: a stack of oil barrels and a car with a CO₂ cloud. The text '148 gal of fuel saved' and '494 kg of GHG emissions avoided' is positioned below the respective icons. The VCC logo is in the bottom left corner, and a pattern of light green diagonal lines is on the right side.

**EV
Charging**

148 gal
of fuel
saved

494 kg
of GHG emissions
avoided

VCC

EMISSION REDUCTIONS: PLANS FOR 2024 AND BEYOND

Expanding upon our accomplishments in energy reduction projects and behaviour change campaigns, VCC remains committed to actively involving staff, students, and faculty in upcoming initiatives on both campuses. Our focus for the coming years is to implement additional energy reduction projects and conduct behaviour change campaigns that will contribute to further reducing our annual greenhouse gas (GHG) emissions.

The future initiatives we have planned encompass a wide range of activities, some of which include:

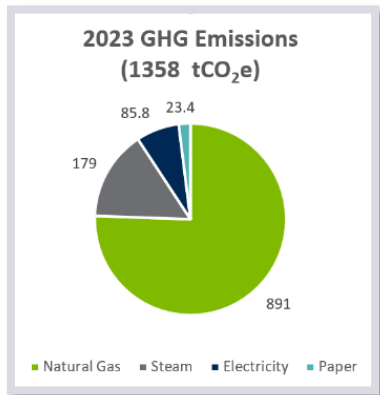
BROADWAY CAMPUS

- Replace standard efficiency motors of pumps and fans with premium efficiency types.
- Install dimming controls for corridor and classroom lighting systems.
- Recommission the HVAC equipment under the BC Hydro Continuous Optimization Program (Phase 2).
- Conduct behavioral change campaigns.
- Install a photocell sensor in the lighting of the bridge that connects building A and B, and Receiving Canopy.
- Upgrade lighting in the flagpole area from incandescent to LED.
- Increase the number of EV charging stations.

DOWNTOWN CAMPUS

- Replace standard efficiency motors of pumps and fans with premium efficiency types.
- Recommission the HVAC equipment under the BC Hydro Continuous Optimization Program (Phase 2).
- Electrify the Culinary School kitchen with induction units.
- Install flush valves for washrooms.
- Replace condensate tank.
- Upgrade transformers.
- Increase the number of EV charging stations.
- Purchase electric cargo van.
- Replace kitchens' makeup air units with heat pumps.

EMISSIONS SUMMARY



In 2023, a total of 1,180 tCO₂e. of greenhouse gas (GHG) emissions were reported and offset. Energy usage within VCC's buildings accounts for over 98% of the reported GHG emissions, encompassing natural gas, steam, and electricity. The remaining 2% of emissions are attributed to VCC's paper consumption.

Figure 1: 2023 Emissions Breakdown

Compared to 2021 levels, VCC has decreased total organizational emissions by 13% year-over-year and has achieved a 62% reduction in emissions compared to our 2011 baseline.

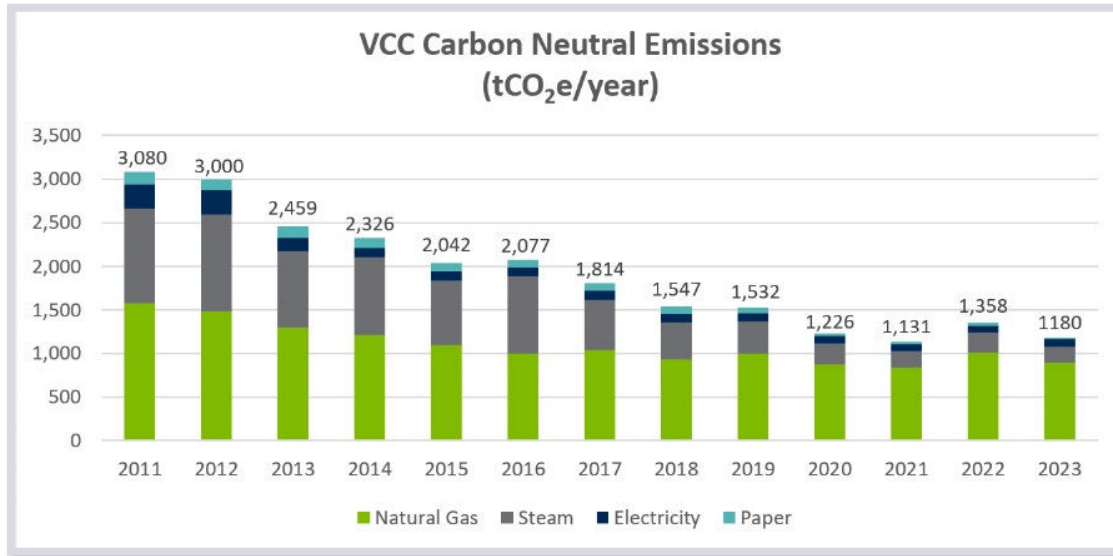


Figure 2: Historical Annual Emissions 2011-2023

2023 GHG EMISSIONS AND OFFSETS SUMMARY TABLE

Vancouver Community College 2023 GHG Emissions and Offsets Summary	
GHG emissions for the period January 1 - December 31, 2023	
Total BioCO2	0
Total Emissions (tCO2e)	1180
Total Offsets (tCO2e)	1180
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO2e)	0
Grand Total Offsets for the 2022 Reporting Year	
Grand Total Offsets to be Retired for 2022 Reporting Year (tCO2e)	1180 + 0
Offset Investment (\$)	1180 x \$251

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 2023 calendar year, together with any adjustments reported for past calendar years (if applicable). The Organization hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy (**the ministry**) ensuring that these offsets are retired on the Organization’s behalf, the Organization will pay within 30 days, the associated invoice to be issued by the Ministry in an amount equal to \$25 per tonne of offsets retired on its behalf plus GST.

PUBLIC SECTOR LEADERSHIP

The energy team convenes monthly to examine commitments, guidelines, procedures, and budgets. This regular gathering ensures that VCC remains on course to achieve its greenhouse gas (GHG) reduction targets. Furthermore, discussions during these meetings are increasingly centered around climate adaptation initiatives, which aim to mitigate risks associated with climate change.

Our future initiatives encompass a diverse range of activities, such as implementing energy-efficient measures, upgrading equipment, promoting behavioral change, and electrifying the Culinary School at the Downtown Campus, as well as improving DDC systems, optimizing HVAC equipment and installation of EV charging stations.

VCC 2023 PSO Climate Change Accountability Report

In order to minimize our GHG footprint, we will persist in implementing various measures, including capital planning investment (CNCP Funding; renewals of clean energy-related projects) and the development of policies and processes. Moreover, we will actively engage in behavioural campaigns to promote sustainable practices.

CLIMATE RISK MANAGEMENT

Vancouver Community College is proactively addressing the potential impacts of climate change on its infrastructure to ensure continued reliability, operational efficiency, and occupant safety across its campuses. Through a comprehensive **Climate Risk Assessment** of the electrical and mechanical systems in their buildings, VCC aims to identify vulnerabilities associated with climate change and extreme weather events. This risk assessment process seeks to answer critical questions such as the likelihood, timing, and consequences of negative climate-related events. A consulting team will execute this assessment by developing a matrix to assess interactions between building components and climate parameters, assigning severity scores to identified interactions, and categorizing risks as low, medium, or high. Proposed climate resilience measures will target medium and high-risk components, with preliminary cost estimates and co-benefits of these measures carefully considered to enhance overall climate resilience and preparedness at VCC campuses.

The safety of our students and staff is a top priority. That is why we have developed the **Heat Stress Exposure Control Plan (HSECP)** to address the excessive heat stress observed in the kitchens at VCC's downtown campus. The plan was finalized in 2023 to safeguard the health and well-being of VCC employees and visitors by effectively controlling and minimizing their exposure to heat stress. It aligns with the requirements of the WorkSafeBC Occupational Health and Safety Regulation and incorporates control measures to prevent heat-related illnesses. For example, when extreme heat temperatures arise, have a strategic culinary teaching plan that doesn't require equipment that produces heat. In addition, the heat sources should be turned on for as little time as possible to reduce the overall heat load in the rooms. This included general controls such as training for workers and supervisors, implementation of heat stress hygiene practices, and medical surveillance.

OTHER SUSTAINABILITY INITIATIVES

Environmental Sustainability Advisory Group (ESAG)

In 2022 the ESAG is an official VCC 'green team', with a mandate to support VCC's commitment to environmental sustainability through the expansion of existing, and the introduction of new initiatives for climate justice and emergency management. Through the Chair, Manager of Environment and Sustainability and the support of the VP Administration and International Development, the ESAG advises the College's Senior Leadership team on matters of environmental responsibility and generates ideas and execute projects that promote and support environmental responsibility within the college and college community. Environmental Community Action Team (ECAT) was an official 'green team' of the college, with a mandate to act as an advisory group of

VCC 2023 PSO Climate Change Accountability Report

Operations Council. To create a direct pathway with the Senior Leadership team, ECAT was dissolved and ESAG re-established in 2022.

Sponsored by the Environmental and Sustainability Advisory Group (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 diversity of projects, the fund ensures that members of the VCC community can act on the sustainability issues that matter most to them. This can help build a culture of sustainability on campus and in the wider community, inspire others to take similar actions.

In 2023, the ESAG received 8 applications, of which 25% were submitted by students. Out of these, 6 were successful, 1 was not feasible, and 2 are pending for a future feasibility study.

The winners developed and implemented the following projects: **Pen Recycling Strategy** with the purchase of 16 collection bins that will be installed at both campuses. The establishment of a **Library Sustainability Hub** involves expanding the book collection to include titles related to sustainability and topics relevant to VCC's hands-on learning schools, as well as incorporating books recommended by the United Nations on the Sustainable Development Goals. Purchase and install kitchen composters and soil for our gardens. The science department uses refillable whiteboard markers to reduce plastic waste.

ESAG and People Services are partnering to offer VCC employees learning opportunities to build awareness, explore options, and encourage commitment to green habits by offering **Employee Workshops**

Moss Ball Workshops: To date, nearly 80 employees have participated in workshops hosted by ESAG and People Services, where they learned how to surround the root ball of plants with small globes of soil and then wrap them in soft moss. These workshops have been highly popular offering hands-on opportunity to discuss sustainability and green practices at VCC. The workshop also modeled sustainable procurement, reduced waste practices and introduced attendees to VCC's sustainability goals.

This workshop supports UN's sustainability goal number 15 about Life on Land, and the call for a "fundamental shift in humanity's relationship with nature."





VCC Day

Each year employees are invited to participate in VCC Day - an employee engagement and appreciation event. In 2023, the day helped raise awareness about food waste in Vancouver, highlighting the work of [Chef TJ](#) and his team. Every week since the start of the pandemic, Chef TJ and his team have turned surplus quality food into free meals in Downtown Eastside, Vancouver. They have made over 300,000 meals and counting!

VCC Day lunch was provided to the 600 attendees by Chef TJ and his team. It was 90% made from surplus food, giving employees an opportunity to see and taste for themselves.

A film screening of [The Interceptors](#), a short documentary about Chef TJ and this work, was followed by a panel discussion with Chef TJ and Ben Cox, the filmmaker, facilitated by Story, Money Impact - an organization dedicated to amplifying films making societal change.

VCC 2023 PSO Climate Change Accountability Report

Nominations for Employee Excellence Awards are invited every year at VCC Day. In 2023, the Employee Excellence Award for Innovation invited nominations specifically for sustainability initiatives.

The Automotive Collision and Refinishing program team won the award for their sustainability practices in sourcing, utilizing, and recycling vehicles otherwise destined for scrap metal.

Through strategic partnerships with towing and metal recycling companies, the team acquires these automotive vehicles and uses them as hands-on training aids for tasks such as body panel and component removal/installation, sheet metal repair, plastic repair, glass removal/installation, glass repair, and refinishing application, covering undercoat, topcoat, and matching existing finishes.

The program team also collaborates with aftermarket parts suppliers to obtain "returned due to damage" body panels. These panels become the canvas for students' initial attempts at metalwork, filler application, refinishing, and paint correction.

By creatively re-purposing these materials, the program not only has a positive environmental impact, but it also develops sustainability awareness with the next generation of industry leaders.

Transportation Trades: New Electric Vehicles

Students are learning how to service and repair electric vehicles (EVs) and fuel cell electric vehicles (FCEVs) vehicles and heavy-duty equipment.

Alongside the Toyota Mirai – one of the first FCEVs made for the Canadian market – and the Volvo ECR25 compact electric digger, VCC has most recently acquired the Freightliner, eCascadia, an all-electric semi-truck. [VCC expands electric fleet in latest move to future proof skills training.](#)

VCC also received \$271 million in funding from the provincial government for a new Center for Clean Energy and Automotive Innovation, which will provide teaching and experiential learning in important clean energy fields that are in high demand and support the province's training, labour market, and environmental goals for a clean and sustainable future for next generations. [New Centre for Clean Energy and Automotive Innovation coming to Great Northern Way](#)



VCC 2023 PSO Climate Change Accountability Report

The new **Environment and Sustainability Strategy** will serve as a roadmap for positioning VCC as a leader in environmental stewardship within the advanced education sector. We recognize our accountability for environmental impacts and, through this strategy, aim to embed environmental sustainability values and practices throughout the organization over the next five years. To complement the strategy, VCC has also developed the Environmental Sustainability Strategy Implementation Workbook, which serves as a tool to plan and implement efforts toward achieving the goals outlined in the Strategy 2023-2028.

Since 1998, VCC has maintained an **Environmental Policy** to ensure that all activities are conducted in a manner that promotes responsible stewardship of the environment. The policy emphasizes considering environmental factors in all planning and decision-making activities, supporting VCC green team, and taking prompt action to address environmental risks and concerns.

In 2022, VCC enlisted the services of a consultant to conduct an **Indoor Air Quality (IAQ) Audit** for both campus locations. The primary objectives were to identify potential IAQ issues and provide evidence-based recommendations to improve and optimize air quality within each building. Additionally, VCC installed thermostats with CO2 readers at both campuses to measure air quality, especially during periods of smoke caused by wildfires. By conducting this assessment and incorporating CO2 readers, VCC can more accurately monitor and assess air quality, promote sustainable building practices, reduce energy consumption, and improve the health and well-being of occupants during challenging situations like wildfires. We are pleased to inform the community that no air quality issues were identified during this audit.

Since 2022 VCC 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 implemented a range of initiatives to encourage cycling as a means of transportation on campus. Among these initiatives is VCC's first-of-its-kind **E-Bike Storage and Charging Station**, along with bike racks and other end-user services. These services include a commercial-sized air pump for tire inflation and a fix-it bike station equipped with tools for on-campus repairs and tune-ups.

VCC 2023 PSO Climate Change Accountability Report

Curriculum: Sustainability in Program Learning Outcomes

Bachelor's in Hospitality Management, This program includes a Sustainability in Business course which provides students opportunities to analyze current environmental changes and the ways in which people and the planet interact. Students critically examine a business case for sustainability in terms of providing solutions to today's environmental and social issues.

Business and Project Management, International Education program includes a course called Workplace Safety and Sustainability. This course provides the students with knowledge of workplace health and safety along with sustainability considerations in the project settings.

Commercial Services & Culinary Arts: Green Purchases

VCC's Culinary and Commercial Services departments have initiated and operationalized water, electricity and energy management sustainable practices and initiatives such as

- continual sourcing for recyclable take-away packaging and compostable cutlery
- placing timers on all hood vents in kitchens
- significantly reducing water use on campus with students responsible for uniform cleaning
- instructional material moved to online to avoid printing use
- blast chillers are being used in lieu of water for cooling large amounts of hot food
- posting notices in dish rooms to reduce the amount of wasted running water
- supported departments to purchase reusable coffee and water bottles

The 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 disposed properly and in a way that minimizes risks to the environment.

Non-recyclable Waste

Waste generated at VCC that cannot be recycled is sent to Covanta, the City of Burnaby's waste to energy facility or to the Metro Vancouver Transfer station. Every year Covanta facility generates

VCC 2023 PSO Climate Change Accountability Report

enough electricity to power 16,000 homes and recovers nearly 7,000 tonnes of metal for recycling through their incineration processes.

Cardboard & Paper

Cardboard and paper waste generated at VCC is sent to Urban Impact Recycling in New Westminster where it is sold to both domestic and international processors for recycling. Cardboard is often recycled into new cardboard boxes, paper-based plant pots, drywall liners and brown paper products like paper towels. Office paper is often recycled into tissue paper and writing paper, or in some cases, it is used to increase the recycling quality of other paper streams.

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 guidelines, ensuring proper waste management practices.

Organics

Organic waste generated at VCC is processed by Anaconda Systems or Surrey Biofuels at their composting facilities where it is turned into high quality soil supplements that are utilized in agricultural production.

Metals

Metal waste generated at VCC is sent to ABC Recycling in the City of Burnaby where it is either sold to larger processors for recycling. This waste stream typically results from our different schools, renovation projects, and/or obsolete items.

Plastics

Hard plastics, styrofoam and polyethylene waste generated at VCC is sent to PMD Recycling Centre (Pacific Mobile Depots Ltd). PMD melts the styrofoam and polyethylene into bricks which are then sold to different processors for recycling. Hard plastics are also sold to different processors where they are recycled into pellets that can be re-molded into new products.

VCC 2023 PSO Climate Change Accountability Report

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 2023, 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).

Toner

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.

SUCCESS STORIES

The following pages provide highlights from some of our favourite success stories that occurred during 2023.



A Waste Reduction Success Story...

In 2022, VCC changed its procedure around office waste and removed individual bins from classrooms. This resulted in the removal of over 250 garbage bins!

By providing centralized locations for waste disposal VCC is able to:

- Reduce the number of plastic bags being used to line trash bins
- Improve diversion as all streams are readily available when you go to discard your item
- Reduce contamination by required single-stream separation



Questions?

Contact the Manager of
Environment & Sustainability
dcabreropurata@vcc.ca

The Great Holiday Shutdown



In 2023, VCC continued our annual tradition of getting staff to 'shut down' for the holidays. This campaign helps save energy and raise awareness about energy saving opportunities such as turning off monitors, unplugging small appliances and closing the blinds!

At the same time, the Facilities Team reduced heating and ventilation to all the buildings. These systems consume a large portion of energy and turning them off for the holidays has a significant impact on reducing VCC's carbon emissions!

WE HAD A RECORD-BREAKING YEAR WHEN IT CAME TO PARTICIPATION WITH OVER 18 DIFFERENT DEPARTMENTS GETTING INVOLVED THIS HOLIDAY SEASON!

The great shutdown campaign aligns with SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action) by promoting energy efficiency and reducing carbon emission



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, 2024

Ian Humphreys VP Administration & International Development

VCC