



**Vancouver  
Community  
College**

# **Strategic Energy Management Plan**

2024/2025

## Land acknowledgement

Vancouver Community College respectfully acknowledges that we teach and learn on the traditional and unceded territories of the  $x^w m \theta k^w \acute{a} y \acute{e} m$  (Musqueam),  $S k w x w \acute{u} 7 m e s h$  (Squamish), and  $s \acute{a} l i l w \acute{e} t \acute{a} \acute{t}$  (Tsleil-Waututh) peoples.

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A photograph of a modern, multi-story building with a dark facade and large windows, set against a twilight sky with soft clouds. The building has 'VCC' visible on its upper right corner. A green graphic with white wavy lines curves across the bottom of the image.

## Executive Summary

The Strategic Energy Management Plan (SEMP) supports Vancouver Community College's (VCC) commitment to energy efficiency and conservation by providing a framework for reducing energy consumption and its associated environmental impact. The SEMP outlines a specific energy reduction target along with a detailed action plan to achieve it.

The Strategic Energy Management Plan (SEMP) aligns with VCC's Strategic Innovation Plan (SIP) and its five key priorities, which reflect VCC's aspirations as a prominent post-secondary institution in British Columbia. This alignment establishes clear and attainable objectives. Among these priorities is the commitment to environmental sustainability, involving the expansion of current initiatives and the introduction of new ones for climate justice and emergency management. This commitment is an integral part of the Campus of the Future priorities.

To learn more about the SIP, please visit: <https://www.vcc.ca/president/strategic-innovation-plan/>

### Energy and Emissions Targets

#### **Absolute Energy and Emissions**

VCC has a long history of reducing energy consumption and greenhouse gas emissions. By the 2023/2024 fiscal year VCC had reduced total energy consumption by 48% (Figure 1) and carbon emissions by 61% relative to 2007/2008 fiscal year levels (Figure 2). This means that VCC has already achieved the 2040 carbon emissions reduction targets set by the Province of British Columbia and is well on the way to meeting the Province's 2050 target as well. In addition, VCC has established an internal target of Net Zero Emissions by 2050 which will require focused decarbonization and energy conservation initiatives for their existing buildings as well as the new buildings being added to the VCC portfolio in coming years. In the short term VCC has a 2024/2025 fiscal year energy conservation target of approximately 800,000kWh.

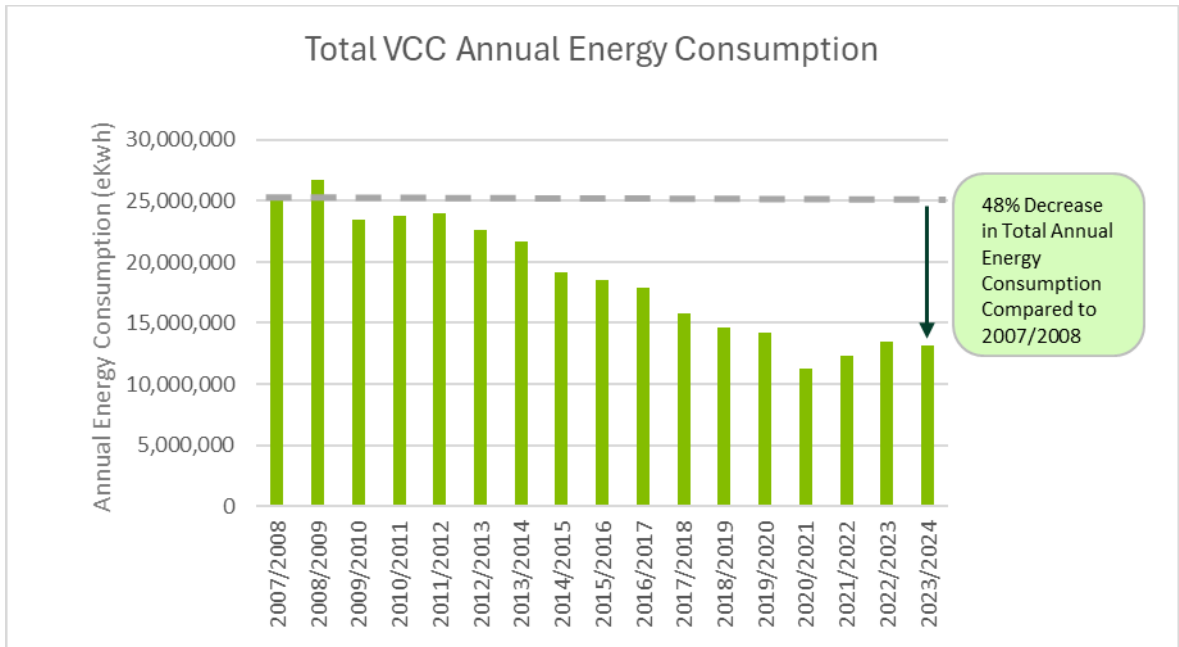


Figure 1. Historic Total Annual Energy Consumption Trend

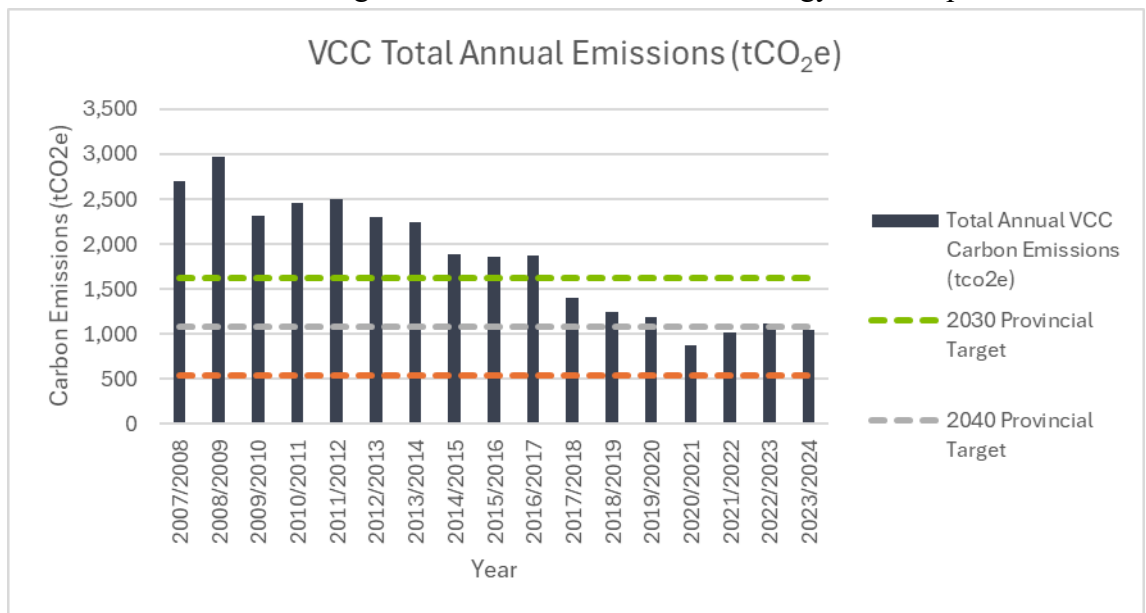


Figure 2. Historic Total Annual Emissions Trend Relative to 2030, 2040 & 2050 Targets



## Energy and Emissions Intensity

VCC is embarking on a campus and housing expansion project in coming years. One of the first projects is the Center for Clean Energy and Innovation that is being constructed by VCC, and it will be LEED Gold certified. The added square footage of these new VCC facilities will lead to an increase in total square footage and total energy consumption. However, the increase in total area does not have to lead to an increase in total emissions. VCC has established energy and carbon intensity targets to help them continue monitoring and reducing carbon emissions even as the square footage of the campus grows.

VCC plans to reduce campus energy intensity in existing buildings 50% by 2024/2025 and 60% by 2029/2030 below 2007/2008 fiscal year levels through the implementation of cost-effective energy management initiatives. VCC will reduce campus GHG intensity 65 % by 2030 compared to a 2007 baseline.

### Budget Approval for Current Year

To help advance energy conservation and decarbonization efforts in the 2024/2025 fiscal year VCC committed over \$140,000 toward LED lighting upgrades, \$115,000 to heat pump replacements, \$80,000 to DDC upgrades, and \$140,000 to decarbonization and climate resilience studies. These studies will identify energy, GHG emission reductions, and climate resilience opportunities, helping VCC continue its progress toward climate mitigation and adaptation goals.

### The Benefits of Energy Management

An effective energy management program can produce multiple benefits for VCC and its campus communities such as energy and maintenance and cost savings, greenhouse gas emissions reduction, increased occupant comfort and improved indoor air quality and equipment reliability.





## Our Commitment

The SEMP supports VCC's commitment to energy efficiency and conservation by providing **a framework for reducing energy consumption** and its associated environmental impact. It includes a specific energy reduction target and an action plan of how the target will be achieved.

By implementing the actions detailed in this SEMP, VCC demonstrates leadership through innovation and accountability for the resources it uses as an organization. Additionally, VCC reduces its exposure to rising energy costs, promotes financial sustainability and environmentally responsible development.

### Energy Commitment

VCC is committed to efficient energy management. Since 2013, our Facilities Management department has been identifying energy-saving opportunities and closely monitoring consumption across our campuses. These efforts cut costs, reduce emissions, and enhance comfort and safety, showcasing our dedication to sustainability.

### Sustainability Commitment

A new Environmental Sustainability Strategy will provide a roadmap that will help position VCC as a leader in environmental stewardship in the advanced education sector. We are accountable for our environmental impacts and, with this strategy, are taking steps over the next 4 years to continue to embed environmental sustainability values and practices across the organization. Complementing the strategy, VCC also established the Environmental Sustainability Strategy Implementation Workbook, a tool to help us plan and implement efforts to achieve the goals outlined in the Strategy 2023-2028. Other than the provision of a clear framework, the workbook encourages and facilitates communication among stakeholders, enables progress tracking and promotes accountability, through the identification of key actions, responsible parties, timelines, and resources needed to achieve the goals. The implementation roadmap will be modified as existing goals are reached and new goals set by the Environmental Sustainability Advisory Group (ESAG).





## Why Energy Management Is Important to Us

Energy management is an essential element of VCC's environmental commitment, driven by our response to the Intergovernmental Panel on Climate Change's directive to limit global temperature increases. Since 2013, our Facilities Management department has actively pursued energy-saving initiatives, not only for cost efficiency but also as a demonstration of our sustainability dedication outlined in our Environmental Policy. This policy emphasizes our high standards of environmental stewardship, integrating these standards into all its planning and decision-making activities.

Recent natural disasters in British Columbia underscore the urgency of understanding climate change hazards and their potential impact on VCC. Our Climate Risk Assessment is crucial to help identify concrete actions that can enhance climate change resilience and minimize risks to our operations, built environment, and the well-being of our community members. While reducing our carbon emissions supports global climate goals, understanding future climate risks and planning for campus resilience is equally essential.

Furthermore, energy management also allows VCC to:

- Reduce operating costs through energy conservation and efficiency.
- Minimize the environmental impact of our organization.
- Reduce greenhouse gas emissions – of global importance.
- Reduce exposure to energy cost escalations.
- Reduce reliance on the province's energy infrastructure.
- Demonstrate effective management of resources.
- Promote our successes to the public and other colleges and universities.
- Educate future leaders on the importance of managing resources.



## Stakeholder Engagement Plan

To keep key stakeholders and the campus community informed of the energy management efforts at VCC, the following communication methods are currently used:

*Table 1. Stakeholder Engagement Plan*

Stakeholder group	Engagement Frequency	Engagement Activity
<b>Facility operators and management</b>	Monthly	Energy projects are discussed and energy performance from utility monitoring reports are reviewed at monthly facility meetings
<b>Environmental Sustainability Advisory Group (ESAG)</b>	Monthly	A review of current energy and sustainability projects is provided by the energy team and the group discusses future potential projects covering various topics, including Environmental Education, Carbon Reduction, Energy Conservation, Climate Resilience, Waste Management, and Sustainable Food Systems, along with Green Purchasing Practices
<b>BC Hydro</b>	Quarterly	Energy management report and meeting. This quarterly check-in is required as part of the BC Hydro energy management program and ensures tracking against required energy reduction targets to stay in the program.
<b>VCC Staff and Students</b>	Weekly	The sustainability team prepares success stories on topics such as sustainability, environmental initiatives, energy conservation and cost avoidance achievements to share with staff and students through various communication mediums, including Student News and the Employee News Digest.

The Environment and Sustainability manager is currently developing a communication strategy to keep the VCC community informed on various topics, including energy, sustainability, climate resilience initiatives, project development, and behavior change. The strategy aims to establish effective communication methods with the community of staff and students across VCC campuses, utilizing the following approaches:

- Create an annual communications plan for sharing sustainability-related content throughout the year. Collect and share stories of sustainability initiatives across campus.
- Create opportunities for students, employees, VCC stakeholders and the broader community to get involved in sustainability initiatives.
- Foster partnerships with like-minded community groups to collaborate on common goals.
- Identify and improve the reach of our communication channels.

## Climate Change Accountability Commitment

Under the Carbon Neutral Government Regulation of BC's Greenhouse Gas Reduction Targets Act, VCC reports on emissions to BC Climate Action Secretariat, and purchases credits to offset these emissions. As part of this, a Climate Change Accountability Report is prepared by VCC each year outlining efforts undertaken and planned to reduce carbon emissions. Through the purchase of offsets **VCC is carbon neutral by definition.**

VCC's 2022 Climate Change Accountability Report is available at the following link:

<https://www.vcc.ca/about/college-information/reports-and-publications/>

The targets and actions outlined in the SEMP combined with VCC's completion of a climate resilience assessment in 2024 showcase VCC's past and ongoing commitment to climate change accountability.

## Governance & Leadership



## Communications & Engagement



Environmental  
Education



Carbon  
Reduction



Energy  
Conservation



Climate  
Resilience



Waste  
Management



Sustainable  
Food Systems



Green  
Purchasing  
Practices



Figure 3. 2023/2028 Environment and Sustainability Strategy Pillars

## Understanding Our Situation

Vancouver Community College (VCC) opened its doors in 1965, and currently focuses on delivering more than 140 certificates, diplomas, and bachelor's degree in a variety of disciplines including arts, hospitality, health, transportation, English language, and education. There are two main campuses: the Downtown campus and the Broadway campus. Both campuses are included in this SEMP.

### Sustainability Strategy and its Link to the SEMP

VCC's Environmental Sustainability Strategy 2023-2028 provides the framework for embedding sustainable practices across the institution, reinforcing the principles of accountability, environmental stewardship, and collective action. The Strategic Energy Management Plan (SEMP) complements this strategy by focusing specifically on energy conservation and emission reductions, directly contributing to VCC's long-term sustainability goals. Both initiatives align under VCC's

The pillars of the Environmental Sustainability Strategy—Governance & Leadership, Carbon Reduction, Energy Conservation, Waste Management, and Climate Resilience—are foundational to both the strategy and the SEMP (Figure 3). These pillars drive specific actions, guidelines and policies to reduce the environmental impact of campus operations, while also promoting sustainable decision-making at every level of the organization. The SEMP builds upon these pillars by setting clear energy targets and implementing innovative projects that enhance VCC's sustainability performance, ensuring alignment between short-term energy goals and long-term institutional sustainability



Table 2: Organization Profile

Organization Profile				
P E O P L E	Sector	Education (post-secondary)		
	Number of Full Time Students (2022/23 – approximate):	7,169	Number of Sites:	Two sites: Downtown campus 34,030 m <sup>2</sup> Broadway campus 37,719 m <sup>2</sup>
O P E R A T I O N S	Energy Management Issues / Obstacles	Availability of funding for energy efficiency projects; Limited sub-metering, particularly natural gas; Energy awareness and the behavioural change amongst faculty, staff, and students. Transient student population.		
	Core Business Metrics	1. Building floor area (m <sup>2</sup> ) 2. Full-time equivalent (FTE) students 3. Classroom hours		
	Business Year	April 1 <sup>st</sup> to March 31 <sup>st</sup>		
	Budget Cycle	April 1 <sup>st</sup> to March 31 <sup>st</sup>		
	Operations/Maintenance Budget ( <i>includes salaries, supplies, janitorial</i> )	2022/23: \$5,347,000		
	Utilities Budget* ( <i>Elec, Gas, Steam, Water</i> )	2022/23: \$1,110,000		
	Energy Efficiency Projects (Capital)	2022/23: \$975,000		

# 13,700

STUDENTS REGISTERED



**489**  
INDIGENOUS  
STUDENTS ENROLLED –  
SELF-DECLARED\*

OVER  
**50**  
LANGUAGES SPOKEN

FROM  
**137** COUNTRIES

**37**  
AVERAGE AGE OF  
DOMESTIC STUDENT

**35**  
AVERAGE AGE OF  
INTERNATIONAL  
STUDENT



**34%**  
ARE MALE

**64%**  
ARE FEMALE

**0.20%** NONBINARY  
**1.65%** PREFER NOT  
TO ANSWER

### SCHOOLS & DIVISIONS

**3** BACHELORS DEGREES  
**2** ADVANCED CERTIFICATES  
**3** POST DIPLOMAS  
**3** UT ASSOCIATE DEGREES  
**96%** OF STUDENTS SATISFIED WITH QUALITY OF INSTRUCTION†

**12** APPRENTICESHIPS  
**5** SHORT CERTIFICATES  
**33** DIPLOMAS  
**90** CERTIFICATES

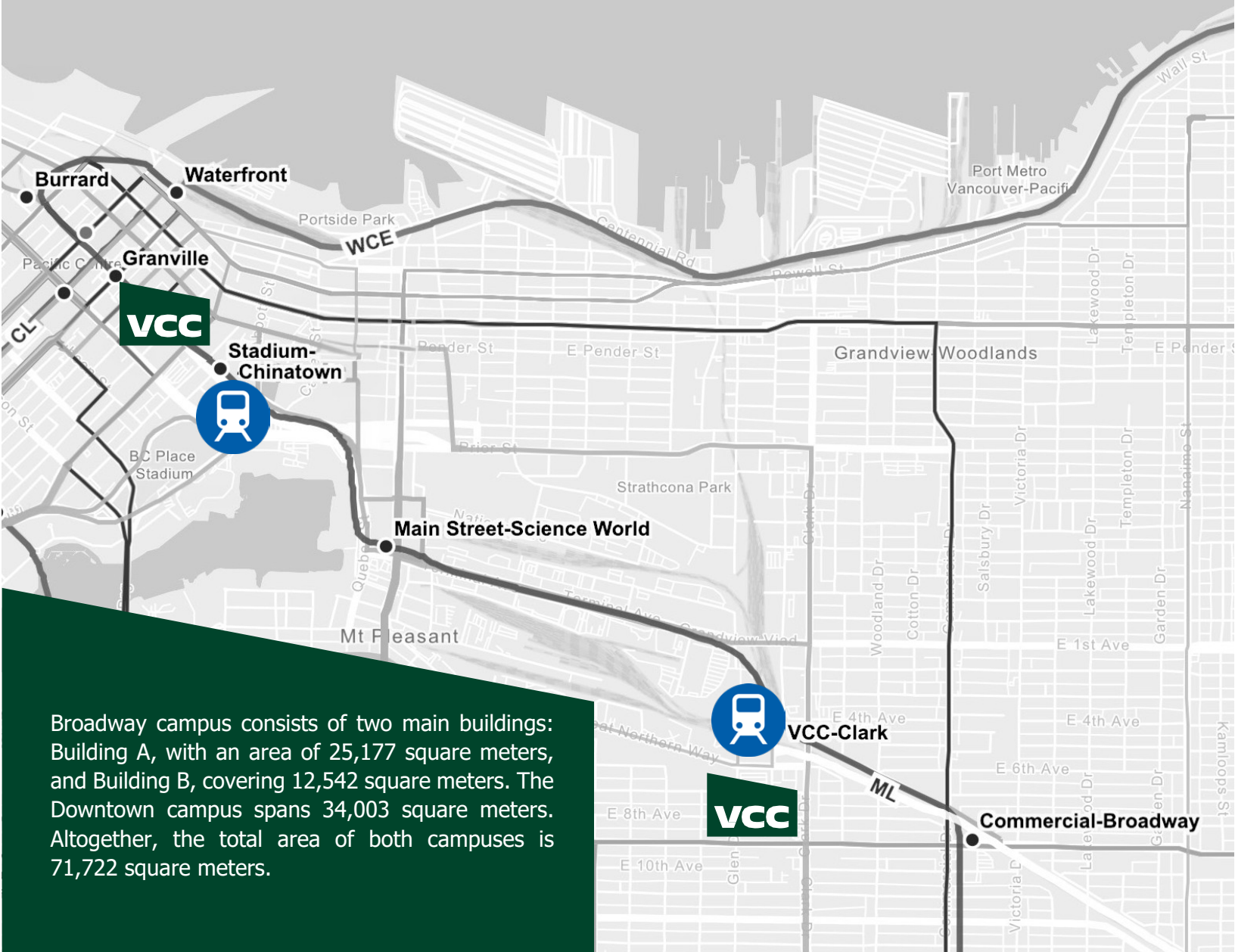


Figure 4: VCC's Student Demographics INSTITUTIONAL ACCOUNTABILITY PLAN AND REPORT 2022/2023 REPORTING CYCLE.

## Facility Profile

VCC is proud to operate two Metro Vancouver campuses, serving 13,000 students annually, each offering specialized programs with distinct energy profiles. **Downtown campus** is located at 250 West Pender Street. **Broadway campus** is located at 1155 East Broadway.

- |                                      |                            |   |                                 |
|--------------------------------------|----------------------------|---|---------------------------------|
| ■ Adult Special Education            | ■ Esthetics Fashion        | ■ Academic Upgrading                                    | ■ Instructor Training           |
| ■ Baking                             | ■ Graphic Design           | ■ Automotive Collision and Refinishing                  | ■ Music                         |
| ■ Business                           | ■ Hairstyling              | ■ Automotive Service                                    | ■ Nursing                       |
| ■ CAD and BIM (Drafting)             | ■ Hospitality              | ■ Deaf and Hard of Hearing English as a Second Language | ■ Electronics Repair Technology |
| ■ Counselling Skills                 | ■ Management               | ■ Health Care   | ■ Sign Language                 |
| ■ Culinary Arts                      | ■ Information Technology   | ■ Heavy Mechanical Trades                               | ■ University Transfer           |
| ■ Dental                             | ■ Jewellery Art and Design |   | ■ Visually Impaired             |
| ■ Early Childhood Care and Education |                            |   |                                 |



Broadway campus consists of two main buildings: Building A, with an area of 25,177 square meters, and Building B, covering 12,542 square meters. The Downtown campus spans 34,003 square meters. Altogether, the total area of both campuses is 71,722 square meters.





## Funding

During the Fiscal year 2023/24, VCC allocated approximately \$500,000 to fund various energy conservation projects at both the Downtown and Broadway Campuses. These projects encompassed several initiatives, including upgrading of a Direct Digital Control (DDC) System, electrification of Domestic Hot Water (DHW) system using heat pumps, installing new Electric Vehicle (EV) Charging Stations, Decarbonization Study and Climate Risk Assessment.

For the fiscal year 2024/25, a budget exceeding \$383,000 has been allocated for several energy conservation initiatives, including Direct Digital Control (DDC) system upgrades, heat pump replacement, LED retrofits, and the upgrade of walk-in coolers and freezers from water-based to air-based systems.

In the upcoming years, VCC will take a proactive approach by presenting a thorough project list that prioritizes energy efficiency, climate change mitigation, and responsible resource management during the budget planning process. We will allocate funds for these projects on a case-by-case basis, considering factors like projected payback, sustainability, and alignment with VCC's Green Purchasing Policy to contribute to addressing climate change.





## Energy Management Assessment (EMA)

Every two years VCC takes part in a BC Hydro sponsored Energy Management Assessment (EMA). The purpose of these assessments is to evaluate the organization's energy-related practices and identify opportunities for organizational improvement. VCC uses the insights from the EMA process to help continually improve the energy management program. The latest EMA occurred in May 2022. In this assessment, 22 potential actions were identified across the following 11 topic areas:

1. Executive Involvement
2. Planning & Budgeting
3. Performance Measurement & Reporting
4. Third Party Certification & Recognition
5. Overall Effectiveness
6. Policy/ Charter & Goals
7. Energy Team
8. Employee Engagement
9. Training & Development
10. Procurement & Partnering
11. Data Collection & Management
12. Audit, Review & Control

Since the last EMA report in 2022, VCC has been working towards prioritizing and implementing many of the identified actions and has scheduled the next EMA for January 2025. For a complete list of actions by topic area, see Appendix C: EMA Results.



## Progress on EMA priorities

VCC remains on track to address EMA priorities and will reassess progress in the next Energy Management Assessment (EMA), planned for January 2025. Since the May 2022 Energy Management Assessment (EMA), VCC has made significant progress on identified five priorities:

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### **Executive Involvement**

VCC has engaged senior leadership to promote sustainability initiatives, such as the Moss Ball Workshop and Go by Bike Week, aligning with VCC's Environmental Sustainability Strategy.

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### **Planning & Budgeting**

ESAG established a framework to prioritize projects aimed at reducing energy consumption and GHG emissions. VCC is incorporating GHG cost forecasting into business cases with support from CleanBC and BC Hydro programs.

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### **Performance Measurement & Reporting**

Success stories and KPIs are shared across the campus to enhance engagement, with plans to display these in key areas to promote energy conservation.

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### **Employee Engagement**

Since 2018, VCC has conducted three annual energy awareness campaigns, including the Shutdown and Energy Wise Network campaigns, with the 2024/2025 campaign currently in development.

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### **Training & Development**

VCC staff are encouraged to attend BC Hydro sessions and energy-related conferences to stay informed on best practices in sustainability and energy management.

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## Key Performance Indicators

### **Energy**

To help track energy performance improvements over time VCC uses two key performance indicators (KPI's). The first is a metric of energy performance compared to the building area in square meters. This is known as the building's energy use intensity (EUI) and is a metric that allows VCC to track progress on energy and emissions reduction even as they add or subtract floor area from year to year.

The second metric compares energy performance with the number of full-time equivalent students to account for changes in student population growth overtime which may also impact energy consumption due to higher building utilization rates (e.g., more classes over a longer day to meet growing student instructional needs).

These are comparative metrics VCC can use to try and ensure that any new buildings added to their portfolio have a net positive impact on VCC's overall energy use intensity scores. Figure 3 shows the progressive improvements VCC has made both in terms of annual energy intensity by student and by floor area from 2010 to 2023 compared to VCC's EUI targets (see Section 0).

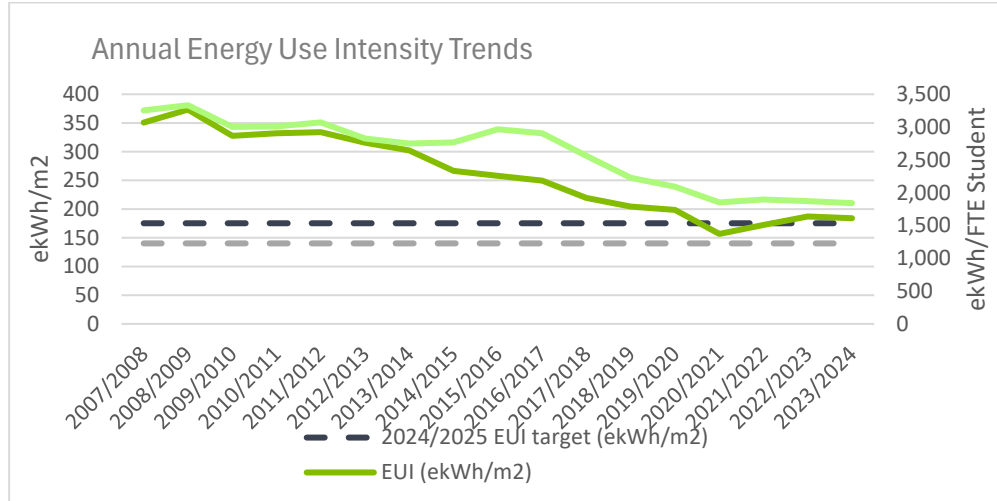


Figure 5. VCC's historic annual building energy intensity compared to future targets

### Emissions

VCC also tracks their GHG emissions intensity (GHGi) in tonnes of carbon per meter squared and as of the 2023/2024 fiscal year had already met their 2030 target of a 60% reduction below 2007 levels (Figure 7).

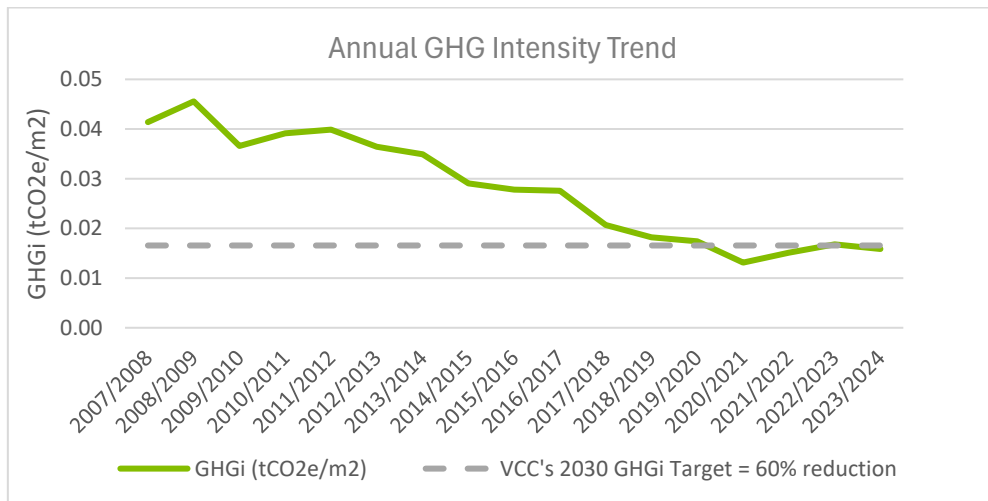


Figure 6. VCC's Annual Greenhouse Gas Intensity Trend



Electricity accounted for 58% of total energy consumption and 73% of total energy costs. Natural gas accounted for 37% of total energy consumption and 19% of total energy costs. Purchased steam accounted for 5% of total energy consumption, and 8% of total energy costs. Figure 11 shows the downward trend of historical annual energy consumption and the relatively steady energy costs for both campuses from 2007/2008 – 2023/2024.

Table 3: Facility Energy Consumption and Cost Profiles

Campus	Building	Energy Consumption (eMWh)				Total Energy Cost (\$)	Energy Intensity (eMWh/m <sup>2</sup> )	Total Energy Cost Intensity (\$/eMWh)
		Natural Gas	Electricity	Steam	Total			
Broadway	Building A	3,920	3,360	N/A	7,280	\$454,900	0.193	\$12.06
Downtown	Downtown	969	4,272	587	5,829	\$501,800	0.171	\$14.76
All VCC		4,889	7,632	587	13,109	\$956,700	0.183	\$13.34

A comparison of the total annual utility energy consumption and the total annual utility cost breakdowns for the 2023/2024 fiscal year are shown in Table 4 above and Figure 8, Figure 9 & Figure 10 below.

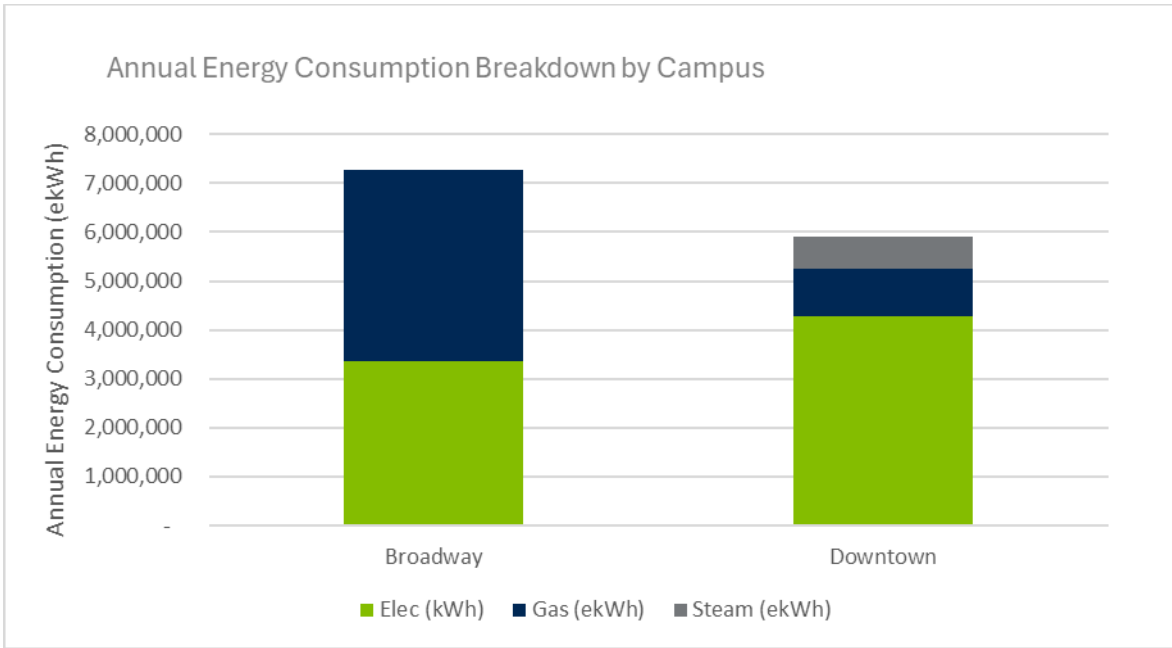


Figure 7. Energy consumption breakdown by campus and energy type for fiscal year 2023/2024

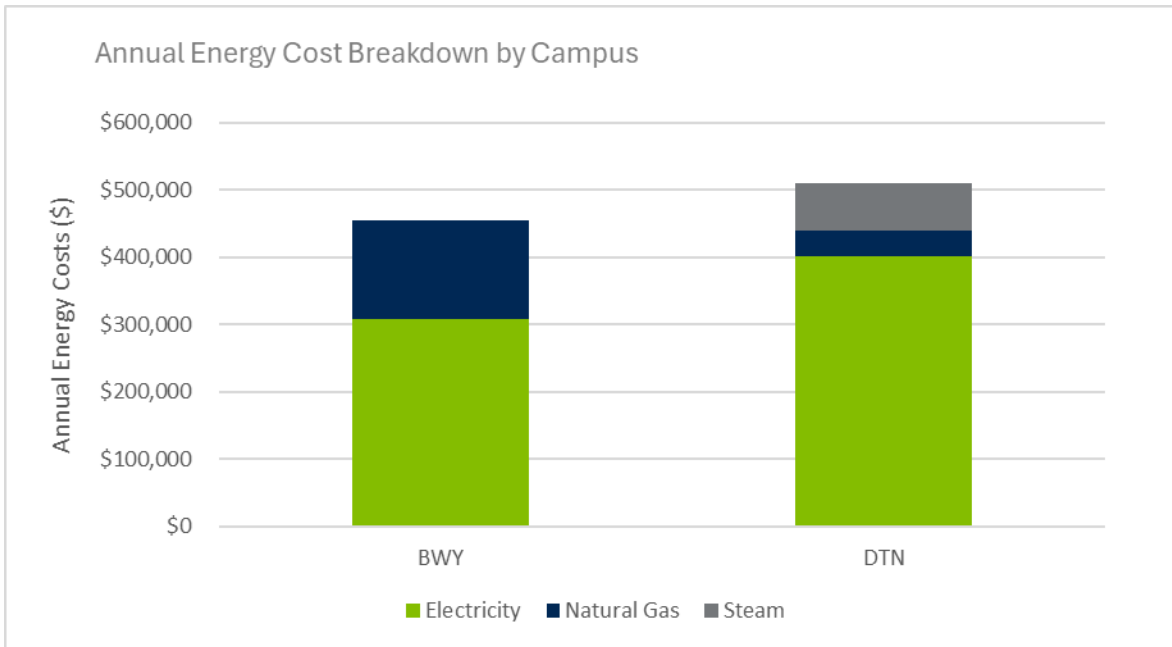


Figure 8. Energy cost breakdown by campus and energy type for fiscal year 2023/2024

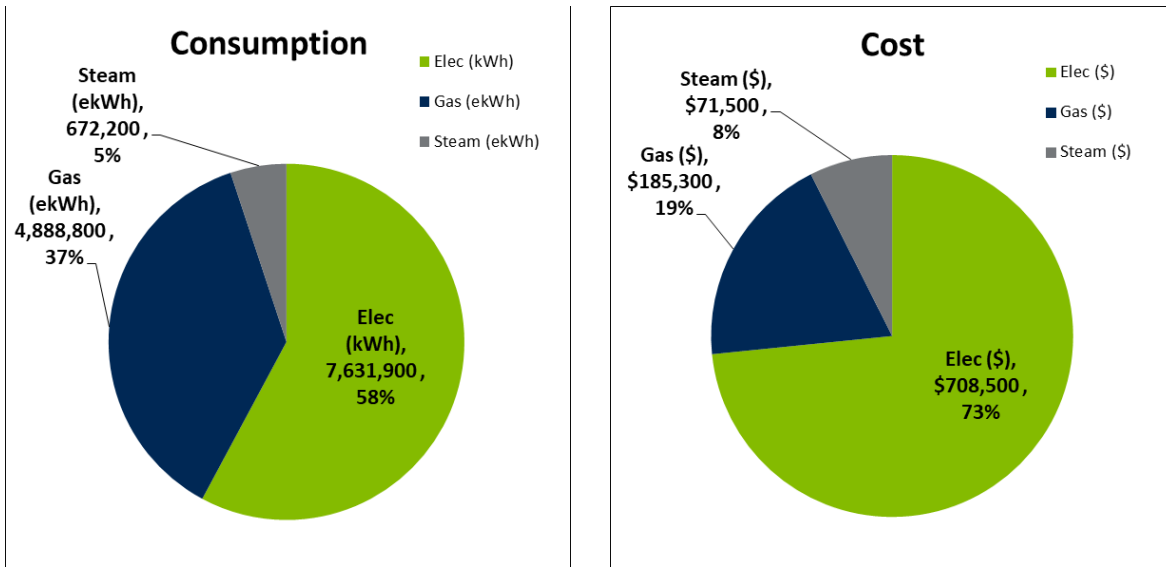


Figure 9: FY 2023/24 Total Annual Energy Consumption and Cost Comparison by Energy Source

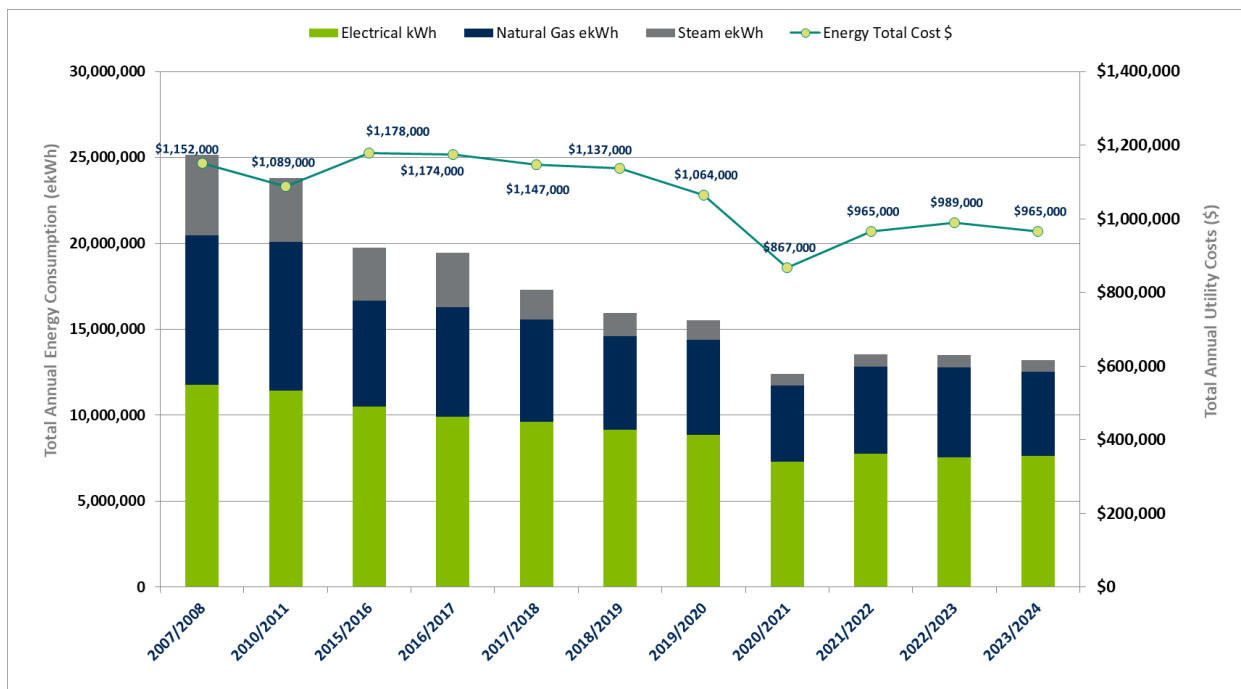


Figure 10: Historical Energy Consumption and Cost – both campuses

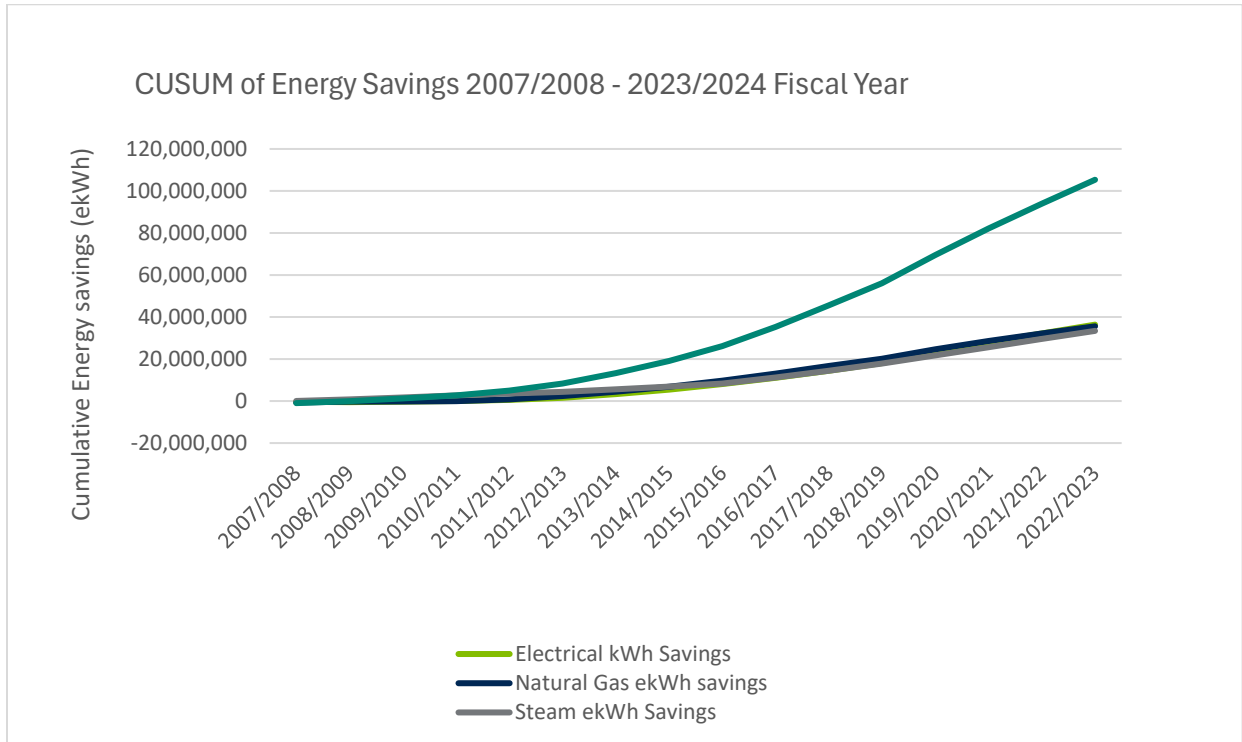


Figure 11: Cumulative Sum of **Energy Savings** for VCC until June 2024

This section of the SEMP tracks the energy savings in comparison to a 2007 baseline and provides the means necessary to track success towards the energy reduction target as set in Section 1.1.

As shown in Figure 12, by the end of Fiscal Year 2023/24 the cumulative energy savings since the base period is positive, representing a **decrease in consumption in comparison to the base period.**

**The total energy saved between Fiscal Year 2007/2008, and Fiscal Year 2023/2024 is over 100,000,000ekWh.**

A breakdown of Energy Savings per year for VCC is shown in Table 5 below.



Table 4: Summary of Energy Savings by Year – VCC

Fiscal Year	Electrical Savings -kWh	Natural Gas Savings - GJ	Steam Savings - GJ	Energy Total Savings - ekWh
2008/2009	-368,187	-2,397	155	-990,998
2009/2010	-536,051	-925	2,751	-28,888
2010/2011	-264,584	-652	6,040	1,231,982
2011/2012	39,257	-74	9,603	2,686,292
2012/2013	573,495	2,910	12,862	4,954,490
2013/2014	1,565,529	8,643	15,739	8,338,348
2014/2015	3,289,424	15,870	20,014	13,257,339
2015/2016	5,412,788	24,387	24,858	19,091,934
2016/2017	8,105,370	34,876	29,954	26,113,574
2017/2018	11,031,576	46,960	40,362	35,287,599
2018/2019	14,412,891	60,097	51,989	45,547,980
2019/2020	18,068,519	72,589	64,276	56,086,635
2020/2021	23,184,670	88,636	78,150	69,513,994
2021/2022	27,929,660	102,967	92,229	82,150,624
2022/2023	32,167,190	115,868	106,526	93,943,454
2023/2024	36,371,877	128,031	120,234	105,334,491

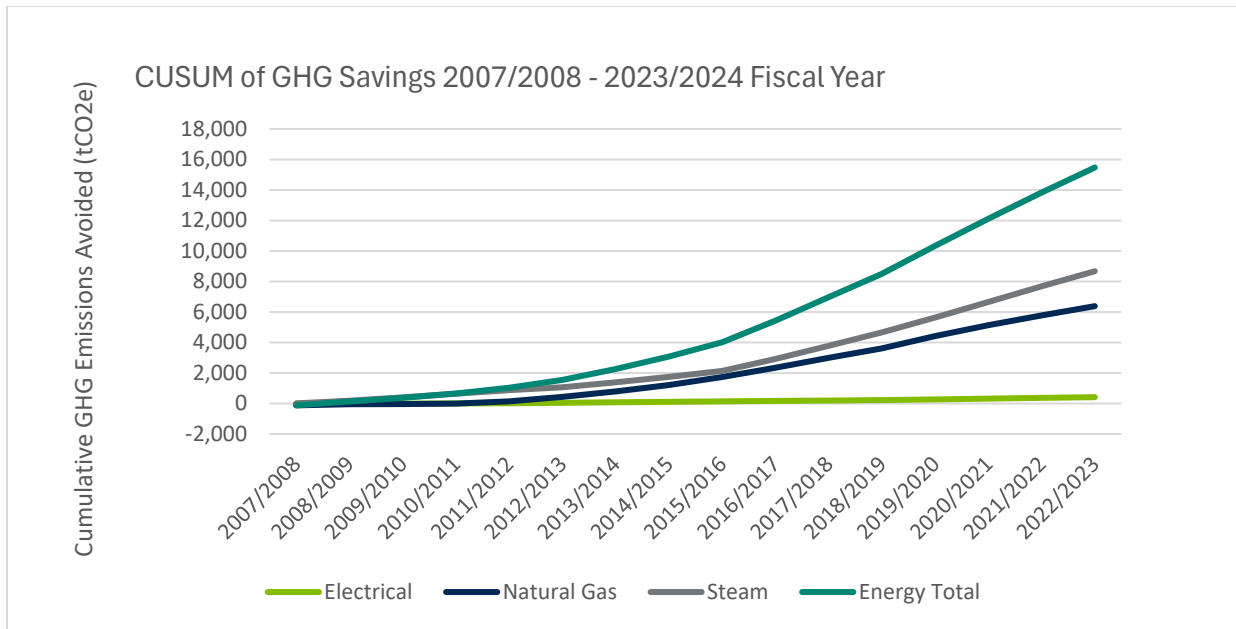


Figure 12: Cumulative sum of GHG emission avoidance – since 2010/11 base period<sup>1</sup>

The cumulative GHG emission avoidance by the end of Fiscal Year 2023/24 is approximately 15,500 tonnes of tCO<sub>2</sub>e.

Table 5: Summary of Emission Avoidance by Year (Tonnes of equivalent CO<sub>2</sub>) – VCC

Fiscal Year	Electricity	Natural Gas	Steam	Energy Total
2008/2009	-9	-120	10	-118
2009/2010	-13	-46	186	128
2010/2011	-5	-33	409	372
2011/2012	5	-4	651	652
2012/2013	20	145	872	1,037
2013/2014	44	431	1,069	1,545
2014/2015	78	791	1,387	2,256
2015/2016	109	1,216	1,752	3,077
2016/2017	142	1,739	2,135	4,017
2017/2018	170	2,342	2,919	5,431
2018/2019	196	2,997	3,783	6,976
2019/2020	225	3,620	4,660	8,505
2020/2021	272	4,420	5,643	10,335
2021/2022	320	5,134	6,663	12,117
2022/2023	369	5,778	7,690	13,837
2023/2024	416	6,384	8,676	15,476



### Avoided Energy Cost

Cost Avoidance is avoided spending, not necessarily decreased spending. If an energy project is implemented that yields consumption savings, but energy rates increase at the same time, then looking at the actual cost savings/decrease in the bills will not show the full cost that was avoided. In other words, if that same project had not been implemented and energy rates increased, then more would have been spent than beforehand. So, by looking at avoided cost rather than just actual cost savings, the full financial impact of the energy management initiatives is captured.

Similarly, as for energy, the same CUSUM chart for energy cost avoidance can be generated, as shown in Figure 13. As shown below, the cumulative energy cost avoidance by end of Fiscal Year 2023/24 is approximately \$7,000,000.

Figure 13: Cumulative sum of cost avoidance – since 2010/11 base period

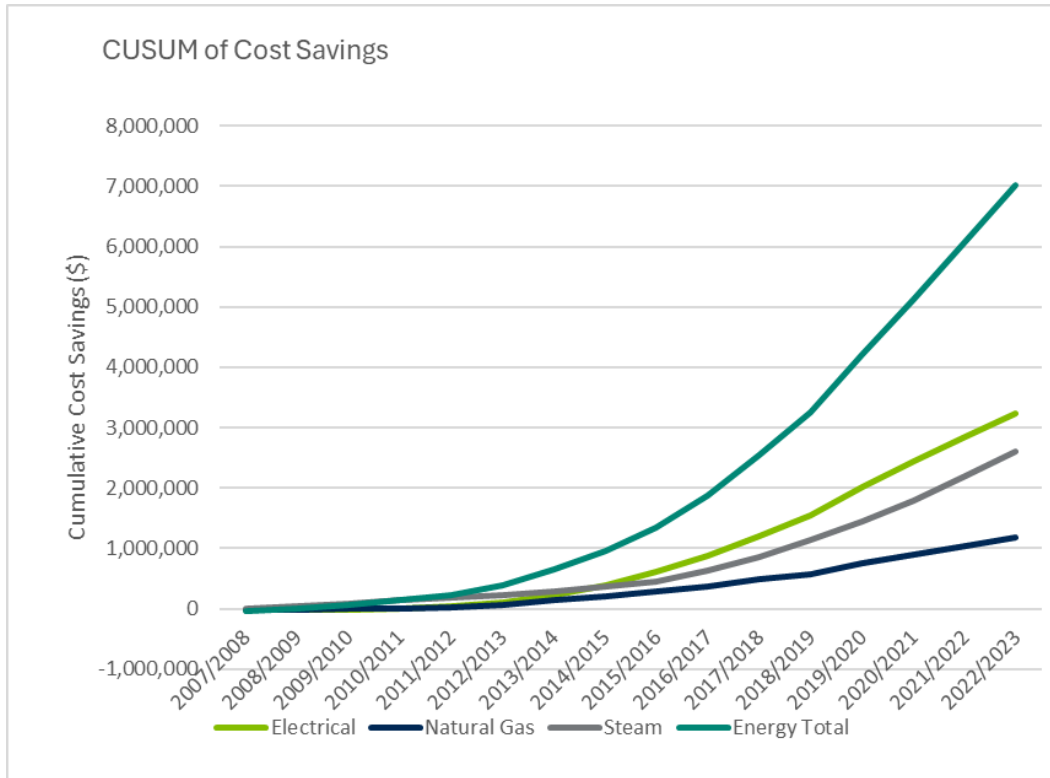


Table 6: Summary of Cost Avoidance by Year – VCC

Fiscal Year	Electrical	Natural Gas	Steam	Energy Total
2008/2009	-17,782	-23,129	4,993	-35,918
2009/2010	-27,928	-11,429	42,060	2,703
2010/2011	-13,706	-8,566	89,414	67,142
2011/2012	4,962	-3,595	138,610	139,977
2012/2013	34,773	19,186	178,225	232,184
2013/2014	97,973	70,719	218,726	387,418
2014/2015	224,144	133,498	290,760	648,402
2015/2016	393,670	199,398	364,528	957,597
2016/2017	613,699	278,738	443,080	1,335,516
2017/2018	883,907	366,043	627,310	1,877,260
2018/2019	1,201,757	486,092	848,752	2,536,600
2019/2020	1,542,507	577,627	1,130,360	3,250,494
2020/2021	2,005,466	745,690	1,450,333	4,201,489
2021/2022	2,448,868	895,550	1,781,614	5,126,032
2022/2023	2,841,165	1,047,887	2,194,991	6,084,042
2023/2024	3,232,816	1,179,780	2,601,253	7,013,849






## Our Actions

### Projection Selection and Prioritization

The decarbonization, climate resilience, and continuous optimization studies are currently being undertaken by VCC. These studies will yield an extensive and detailed inventory of strategic opportunities aimed at reducing energy consumption and greenhouse gas emissions, while simultaneously enhancing the institution's capacity to adapt to future climate-related challenges. VCC will evaluate and prioritize projects for implementation each year based on the following criteria:

- Potential emissions reduction, contributing to institutional decarbonization goals
- Scope of projected energy savings, improving operational energy efficiency
- Budget and total capital and operational costs associated with project implementation
- Remaining lifespan of current infrastructure and systems to ensure timely interventions
- Cost-benefit analysis, including metrics such as energy saved per dollar (kWh/\$) or greenhouse gas reduction per dollar (GHG/\$)
- Alignment with the Sustainability Tracking, Assessment & Rating System (STARS), ensuring projects advance sustainability certification efforts
- Opportunities for leveraging external funding sources, such as government incentives, grants, or partnerships
- Consideration of technical constraints and challenges related to energy conservation and project feasibility



This means that VCC’s energy program and our buildings needs to be responsive and resilient to changing circumstances. The iterative nature of the SEMP and VCC’s Risk Registry are some of the tools that the energy team uses to regularly review and respond to changes over time.

#### Recent Projects Completed 2023/2024

- **Energy Conservation and Awareness:**

Every year VCC completes one or more cross campus behaviour change campaign through the BC Hydro Energy Wise Network Program. The estimated annual savings from changing behaviour is approximately 0.5% of total electricity consumption per year. The energy conservation and awareness campaign completed in 2023/2024 was to redesign the Shutdown campaign to make it increase rich and success. A history of campaigns from prior years can be found in Appendix D: Past Energy Efficiency and Behaviour Change Projects.

- **EV Charger Installation Broadway Campus**

2 EV chargers, 1 of which is at VCC accessible parking lot

- **Mechanical Systems Retrofits at Downtown Campus:**

Heat Pump Replacement – 12 units

Direct Digital Control (DDC) System

- **Mechanical Systems Retrofits at Broadway Campus:**

Electrification of Domestic Hot Water (DHW) system using heat pumps

Direct Digital Control (DDC) System

- **Studies and Assessment both campuses**

Decarbonization Study

Climate Risk Assessment



## The Path Forward

This section's analysis will be used to set achievable, yet visionary targets for the future of VCC campuses. The term 'net zero' can refer to both energy and emissions. A net zero energy building is one that achieves high performance with minimal energy use and meets its energy needs through heat recovery and locally generated renewable sources, such as BC electricity and renewable energy. VCC's path to net zero will involve various projects in the following categories:

### Energy Efficient & Environmentally Sustainable Behaviour

Majority of VCC's projects completed to date are of the first category - "Energy efficiency and Behavioural". VCC has had great success in achieving 48% reduction by end of FY 2021/22 in this category and there are still opportunities to reduce further energy and emissions via energy efficiency.

### Fuel Switching

Fuel switching initiatives primarily focus on reducing emissions at VCC, with energy savings achieved in some areas—such as replacing gas-fired systems with more efficient electric heat pumps. At Broadway campus - Building B, the gas-fired domestic hot water heaters were replaced with electrical heat pumps in 2021. The ongoing replacement of natural gas-powered domestic hot water heaters with electric heat pumps in Building A further exemplifies the college's commitment to sustainability. The college is implementing significant sustainability initiatives, notably integrating two additional state-of-the-art, fully electric demonstration kitchens, and advancing a strategic plan to convert all existing kitchen laboratories to electric systems. This approach aligns with the institution's broader goals of reducing emissions and enhancing energy efficiency across campus operations.





## Renewable Energy

At VCC, there is significant potential to integrate renewable energy solutions to reduce environmental impact. One such opportunity is the installation of photovoltaic (PV) solar panels on the roofs of Broadway campus buildings, which would enable on-site electricity generation. Additionally, the Downtown campus stands to benefit from Creative Energy's planned shift to biomass as a fuel source for its steam utility by 2025. This change is expected to substantially reduce emissions associated with the campus's steam consumption.

While specific reduction levels for these initiatives are continued to be further defined, the potential for emissions and energy consumption reductions is considerable. This will depend on the effectiveness of current and future energy efficiency strategies, including the integration of renewable energy sources and behavioural changes on campus.

## Campus Growth

VCC is expanding its Broadway campus with the LEED Gold certified Centre for Clean Energy and Automotive Innovation (CCEAI), a key component of the college's broader Campus Plan. This plan envisions VCC's campuses as vibrant hubs of academic excellence, innovation, and community engagement, driving the institution forward in both its educational and environmental missions. Designed to meet the highest standards of energy efficiency and sustainability, this building will contribute to VCC's goals of improving energy performance and reducing greenhouse gas emissions. Featuring a hybrid mass-timber and concrete structure, it will integrate advanced sustainable technologies and materials. The design process also incorporates Indigenous perspectives, drawing inspiration from the pre-settlement history of the land and the symbolic significance of the Coast Salish canoe. This project exemplifies VCC's commitment to sustainability and reconciliation, ensuring a lasting impact on both the campus and the wider community.

## Climate Resilience

VCC is in the process of completing a climate resilience assessment on its existing buildings to identify high-risk climate change vulnerabilities and measures to reduce these risks. VCC plans to implement low-carbon resilience solutions wherever practicable to achieve both climate resilience and energy and emissions goals simultaneously. Additionally, VCC is adding climate risk to its Risk Registry. By taking a proactive approach to addressing climate change vulnerabilities, VCC aims to reduce the risk of increased energy consumption that may result from extreme weather events, particularly extreme heat events.

## Sustainability Tracking, Assessment & Rating System (STARS)

STARS is a framework by the Association for the Advancement of Sustainability in Higher Education (AASHE). This initiative will provide a comprehensive baseline for VCC's



sustainability performance, guiding future improvements in areas such as academics, operations, and engagement. By integrating STARS, VCC strengthens its commitment to sustainability leadership, transparency, and accountability, aligning its efforts with global standards and reinforcing its long-term goals in carbon reduction and energy conservation.

### Maximize External Funding

VCC actively seeks external funding opportunities to help pay for energy conservation and emissions reduction projects and maximize the number of projects that can be completed in a fiscal year. This includes actively monitoring and applying for utility, provincial, and federal funding opportunities. The work that VCC is doing this year to identify a variety of energy conservation, emissions reduction and climate resilience projects will help increase the chances of matching known project opportunities to funding program requirements.

### Planned Actions (Project List)

To enable VCC to achieve the reduction target outlined in Section 0, cost-effective energy management initiatives will be undertaken. In addition to energy savings potential, the initiatives taken will also be selected based on non-energy benefits, including occupant comfort, equipment reliability, maintenance costs, and operational improvements.

### Potential Projects

Major potential projects which will help VCC to achieve the reduction target include:

#### Lighting

Multiple opportunities at both campuses, examples include:

- Daylight controls install for high fenestration areas
- Adding lighting systems to DDC (Direct Digital Control)
- Demand response and dimming control for corridors, classrooms, and offices

#### Continuous Optimization of DDC System

- Recommissioning Downtown and Broadway campus buildings to re-assess building performance after Round 1 is complete (6 years after the conservation measures that were implemented in 2017/18)

#### Electrification

- Replacing gas-fired domestic hot water heaters with heat pumps
- Replacing gas-fired kitchens' make-up air units with heat pumps (serving culinary arts school)
- Replacing gas-fired kitchens' equipment with induction units

#### Renewable Energy

- Installing Photovoltaic panels on Broadway Buildings A and B

Table 7: Summary of Potential Energy Savings Projects – Three Fiscal Years

Fiscal Year	Project	Location	Projected Completion Date	Potential Electrical Savings (kWh)	Potential Other Fuel Savings (GJ)	Potential Total Savings (Energy + Operational) (\$)	Total Cost (\$)	BC Hydro/ Fortis BC Incentive (\$)	Projected Total Cost incl. Incentive (\$)
2023/24 2024/25 2025/26	Behavioral Change Program	VCC	Mar-25	60,000	0	\$3,600	\$9,000	\$3000	\$6,000
2023/24	Dimming Controls for Corridors	BWY	Mar-24	7,300	0	\$700	\$25,000	\$0	\$25,000
"	Lighting Upgrades Controls	BWY	Mar-24	1,400	0	\$100	\$5,000	\$0	\$25,000
"	Dimming Controls for Classrooms	BWY-B	Mar-24	30,000	0	\$1,800	\$65,000	\$0	\$65,000
2023/24 2024/25	Continuous Optimization investigation	DTN	Mar-25	-	-	-	\$40,000	\$40,000	\$0
"	Continuous Optimization Investigation	BWY	Mar-25	-	-	-	\$40,000	\$40,000	\$0
2025/26	Continuous Optimization Implementation	DTN	Mar-26	158,000	200	\$12,100	\$24,000	\$0	\$24,000
"	Continuous Optimization Implementation	BWY	Mar-26	115,300	500	\$13,400	\$26,000	\$0	\$26,000
<b>Total</b>				<b>372,000</b>	<b>700</b>	<b>\$31,700</b>	<b>\$234,000</b>	<b>\$83,000</b>	<b>\$171,000</b>

Table 8: Summary of Potential Electrification Projects – Three Fiscal Years

FY	Project	Location	Projected Completion Date	Potential Electrical Savings (kWh)	Potential Other Fuel Savings (GJ)	Potential Total Savings (Energy + Operational) (\$)	Total Cost (\$)	BC Hydro/Clean BC Incentive (\$)	Projected Total Cost Incl. Incentive (\$)
2024/25	Culinary School Induction Equipment	DTN	Mar-24	-111,000	570	\$1,000	TBD	TBD	TBD
2024/25 & 2025/26	Kitchens' Make-up Air Units Replace with Heat Pumps	DTN	Mar-26	-249,000	3,230	\$24,000	TBD	TBD	TBD
<b>Total</b>				<b>-460,000</b>	<b>5,300</b>	<b>\$34,000</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>



## Appendix A: Stakeholders

### VCC BC Hydro Energy Manager Program Consultants:

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.

<b>Ron Mastromonaco</b>	Key Account Manager BC Hydro
<b>Jason Lee</b>	Program Manager BC Hydro

### VCC’s Executive Support

Executive leadership support is critical to the effective implementation of SEM and its alignment with the broader VCC Strategic Innovation Plan (SIP). Together with the President and Vice President of Administration & International Development, the executive leadership team plays a pivotal role in the advancement of initiatives that enhance energy management and sustainability across the institution. Their collective leadership ensures that these efforts are not only prioritized but also integrated into the college’s long-term framework for innovation and sustainable development.

<b>Ajay Patel</b>	President & CEO
<b>Ian Humphreys</b>	Vice President Administration & International Development
<b>David Wells</b>	Vice President Academic and Applied Research
<b>Jane Jae-Kyung Shin</b>	Vice President Students and Community Development
<b>Kate Dickerson</b>	Vice President People Services
<b>Elmer Wansink</b>	Associate Vice President Information Technology and CIO
<b>Tannis Morgan</b>	Associate Vice President Academic Innovation
<b>Clayton Munro</b>	Associate Vice President Student and Enrolment Services
<b>Charnelle McClure</b>	Executive Director Marketing and Communications
<b>Jamie Choi</b>	Executive Director Financial Services and CFO
<b>Surinder Aulakh</b>	Executive Director Safety/Security, Risk and Privacy Management





## VCC's Energy Management Team

VCC's energy management team takes the lead in our energy management efforts. Meeting monthly, the team reviews commitments, guidelines, procedures, and budgets, ensuring that VCC stays on track to meet GHG reduction targets. Additionally, discussions in these meetings increasingly focus on climate adaptation initiatives aimed at reducing risks associated with climate change.

<b>Sladjana Borovčanin</b>	Director, Facilities Management
<b>Ross McPherson</b>	Associate Director, Facilities Management
<b>Diana Cabrero Purata</b>	Manager of Environment and Sustainability
<b>Mani Minouei</b>	Associate Director, Campus Plan & Construction Management
<b>Steve Horn</b>	Manager Capital Projects
<b>Ron Singh</b>	Facilities Manager
<b>David Schmittling</b>	Facilities Manager
<b>Stephen Burns</b>	Building Services Manager
<b>Joshua Johnson</b>	Building Services Manager

## VCC's Environmental Sustainability Advisory Group (ESAG):

The Environmental Sustainability Advisory Group (ESAG) serves as VCC's official "green team," dedicated to advancing the college's commitment to environmental sustainability through the enhancement of existing initiatives and the introduction of new programs centered on climate justice and emergency management. Chaired by the Manager of Environment and Sustainability and supported by the Vice President of Administration and International Development, the ESAG advises the Senior Leadership Team on issues pertaining to environmental responsibility. The group actively develops and executes projects aimed at promoting sustainability within the college and its surrounding community. ESAG contributes to the Strategic Energy Management Plan (SEMP) by offering recommendations on energy conservation and sustainability initiatives, ensuring alignment with the college's long-term framework for innovation and sustainable development.

<b>Diana Cabrero Purata</b>	Manager Environment and Sustainability
<b>Ian Humphreys</b>	Vice President Administration & International Development
<b>Van Khanh Tran</b>	Coordinator, VP Administration (Recording Secretary)
<b>Harleen Kaur</b>	Student Union Vancouver Community College (SUVCC) Representative
<b>Clay Little</b>	Associate Director Indigenous Education and Community Engagement
<b>Skye Richards</b>	VCCFA Representative, Instructor of Mathematics
<b>Kalli Cartwright</b>	Director Commercial Services
<b>Peter Collins</b>	Manager Food Services
<b>Daniel Rohloff</b>	CUPE 4627 Representative, Graphic Designer, Marketing
<b>Trevor Maddern</b>	Director Procurement
<b>Sky Ju</b>	Procurement Officer
<b>Emily Drew</b>	Registered Sign Language Interpreter, Interpreting Services
<b>Erin Vickars</b>	Department Assistant, Culinary
<b>KJ Hills</b>	Department Head, College and Career Access
<b>Sladjana Borovčanin</b>	Director Facilities Management



## Appendix B: Baseline Energy Use; Account Histories (table and charts samples)

In alignment with CleanBC's greenhouse gas (GHG) reduction targets, VCC has updated its baseline year for energy and emissions tracking to 2007. This ensures our reporting is consistent with provincial guidelines, which also use 2007 as the base year for GHG reduction goals. By adopting this baseline, we can more effectively track progress toward CleanBC's 2030, 2040, and 2050 targets, which seek a 40% reduction by 2030, 60% by 2040, and net zero by 2050. This change provides a clearer reflection of our long-term commitment to energy conservation and emissions reduction within the provincial framework.

Historically, VCC's previous Strategic Energy Management Plans (SEMP) used 2010/2011 as the baseline, predating the Energy Manager Program and coinciding with the year VCC became carbon neutral under BC's Carbon Neutral Government Regulation.

Switching to 2007 offers a more comprehensive view of our long-term energy performance and strengthens our alignment with CleanBC's GHG reduction framework.

## Appendix C: EMA Results

ACTION PLAN		
Topic	Action	Progress
<b>PLAN</b>		
Executive Involvement	Encourage executive sponsors to promote success stories and work towards engaging more employees on energy efficiency and sustainability.	VCC's Sustainability department has closely collaborated with ESAG and VP Ian Humphreys to enhance financial support for workshops, activities, and events aligned with the United Nations' Sustainable Development Goals and VCC's Sustainability Strategy. Examples include the <b>moss ball workshop and Go by Bike Week</b> .
Planning & Budgeting	Work with the Environmental Sustainability Advisory Group (ESAG) to establish a formal process for funding energy/GHG reduction projects. This could start with identifying short and long-term projects to help prioritize budget allocation.	ESAG members have proposed a variety of projects that align with <b>VCC's Sustainability Strategy</b> . These projects have different timelines, and we are currently consolidating the list for the next fiscal year. This process helps senior management allocate <b>budgets</b> and support initiatives that reflect VCC's values and promote collaboration across departments. The list of projects for 2024 is yet to be finalized.
	Include GHG cost forecasting in business case calculations for energy reduction projects. This will likely increase the prevalence of electrification, thereby avoiding carbon tax.	VCC is undertaking two initiatives to advance its GHG forecasting efforts. The first is the CleanBC <b>Decarbonization Study</b> , and the second is BC Hydro's sponsorship of the <b>Continuous Optimization Program</b> . These initiatives will help us better understand where to focus further decarbonization efforts in our buildings to meet CleanBC's targets.
<b>CHECK</b>		
Performance, Measurement & Reporting	Consider displaying the identified KPIs in crucial viewing areas. The visuals can encourage employees and students who use the facilities to save energy. Additionally, visible displaying helps form a more robust culture around sustainability.	Success stories with various <b>KPIs</b> have been shared to help people understand the impact of their participation in behavioral campaigns and facilities energy savings projects. KPIs remain essential, and we continue to develop them for future use.
<b>ACT</b>		
Third Party Certification & Recognition	Investigate environmental/energy certifications beyond those required by the government and weigh the value of pursuing them. Even if the decision is not to pursue certification, the standards can be helpful in guiding energy management decisions.	VCC is pursuing The Sustainability Tracking, Assessment & Rating System and certification. This is a transparent, self-reporting framework. The main pillars are: Academics, Engagement, Operations, Planning and Administration.
Overall effectiveness	Prioritize low-cost/no-cost measures. Given the district's size, small changes to setpoints, schedules, etc., can lead to a significant level of energy savings while avoiding capital investment.	Facilities managers consistently focus on temperature setpoint adjustments, HVAC occupancy scheduling, equipment optimization, and data monitoring and analysis.
	Work with the ESAG to set energy and sustainability goals and plan for the college.	Once a month, ESAG meets to review the progress of projects aligned with the pillars of the Environment and Sustainability Strategy. These pillars were carefully chosen to align with STARS and the United Nations Sustainable Development Goals. They encompass Governance and Leadership, Communication and Engagement, Environmental Education, Carbon Reduction, Energy Conservation, Climate Resilience, Waste Management, Sustainable Food Systems, and Green Purchasing Practices.

FUTURE IMPROVEMENTS AND SUSTAINABILITY		
Topic	Action	
<b>PLAN</b>		
<b>Policy/Charter &amp; Goals</b>	With the help of the ESAG, establish new energy/GHG reduction goals and formalize them in the policy. This could be done from scratch or as an update to an existing energy/environmental policy document.	VCC's Environment and Sustainability policy is currently under review.
	With the help of HR, develop a 1-page document for new employees to update their knowledge around energy conservation and sustainability. Include links for the reader to explore relating to VCC values and how energy conservation fits in with those values.	A collaboration path between HR and the Manager of Environment and Sustainability has been stabilised to include energy conservation and sustainability in their site tour for new employees. Since January, ESAG has been posting weekly in VCC's newsletter, sharing important information about sustainability and energy savings.
<b>DO</b>		
<b>Energy Team</b>	Consider creating a cross-functional Energy Team with a target of awareness and engagement. Potential team member segments could include student union, marketing, HR, staff, etc.	Since spring 2023, VCC's Sustainability Office has been actively building strong relationships with various college stakeholders to establish a robust team of individuals passionate about sustainability, climate justice, and energy savings
	Invite additional stakeholders to an energy team meeting and/or EMSS meetings.	VCC will tailor BC Hydro's quarterly presentations to various audiences, highlighting information relevant to specific stakeholders selected for our meetings. For example, senior management and operations managers receive customized content based on their interests and needs, with opportunities for contribution
	Consider having one of the members of the energy team on the ESAG. This will lead to more frequent information sharing and support goal alignment between the two groups.	Currently, ESAG's Energy Team consists of two members: Sladjana Borovčani, VCC's Facilities Director, and Diana Cabrero, VCC's Manager of Environment. Diana Cabrero also serves as the chair of ESAG and hosts the Energy Team's monthly meetings.
<b>Employee Engagement</b>	Collaborate with the ESAG to plan for a campus engagement campaign to increase awareness of energy conservation. Some examples include building energy conservation challenge, turn-off campaign, sweater day, lunch and learn, alternative transportation day, etc.	Since 2018, VCC has run three behavioral campaigns annually: <ol style="list-style-type: none"> <li>1. Space Heaters/Bundle Up</li> <li>2. Shutdown Campaign</li> <li>3. Energy Wise Network Campaign</li> </ol> ESAG hosted Go by Bike Week and a Moss Ball Workshop, while the Sustainability Office will begin designing the Energy Wise Network Campaign for 2024/2025 in the coming month.
	Look into methods of quantification for employee engagement campaigns. This may offer a better understanding of which campaigns are most effective for VCC.	The Sustainability Department tracks engagement in its campaigns by creating activities for participation, counting attendance, and measuring energy savings or equivalent metrics when applicable. After each campaign concludes, we develop a success story to showcase its achievements. The Sustainability Office is pleased to report a consistent increase in participation every year.
<b>Training &amp; Development</b>	Periodically include the "energy moment" element in staff meetings and consider training staff on specific energy topics. This will help upskill and increase awareness. Continue conservation communication in the Digest newsletter.	At present, it would be beneficial for VCC to conduct an evaluation with the goal of future improvements
	Invite energy team members to the BC Hydro sessions.	When a BC Hydro session aligns with the interests of a team member, we strongly encourage their participation in both training sessions and workshops. VCC firmly believes in the



		importance of staying current with the latest industry developments and ensuring our staff are well-trained
	Once it becomes safe to do so, consider sending staff to climate, sustainability, and energy conferences to expand and update their knowledge.	The Sustainability Office, in collaboration with Facilities, dedicates considerable effort to setting aside time and allocating resources for attending conferences focused on climate, sustainability, and energy. Our Energy Team understands the importance of participating in these conferences to expand their knowledge base.
<b>Procurement &amp; Partnering</b>	Investigate revising the procurement process to evaluate purchases with low environmental impact at a higher value. This could also include GHG future costing, which will increase the rate of electrification.	VCC's Procurement Department is currently collecting data from other post-secondary institutions (PSIs) to gather insights on their purchasing practices for updating the Green Purchasing guidelines. Although we did not secure a spot on the BCNet Sustainability Procurement Committee, the department remains committed to aligning the college with BCNet's roadmap for the next two to three years and beyond
<b>CHECK</b>		
<b>Data Collection &amp; Management</b>	Continue to assess gas and water data granularity needs and consider upgrading metering as new technology becomes available.	Since 2010/2011, we have been monitoring our utilities through PUMA and passing the data to Energy Star Portfolio Manager. We also review our utility consumption monthly
<b>ACT</b>		
<b>Audit, Review &amp; Control</b>	Review SOPs and consider updating them specifically for the energy-efficient operation of equipment. This can start with the most significant energy users in the portfolio and then expand to the remaining equipment.	Our operational building services team conducts regular reviews to ensure that protocols and evolving standards are consistently followed

## Appendix D: Past Energy Efficiency and Behaviour Change Projects

Planned activities for **2014/15** included:

- **Random Acts of Green:** A competition to share photos of VCC's staff and students' green actions (From September to October 2014)
  - **Communications:** Recruitment to the Green Team and behaviour modeling through increased membership
  - **Training:** Instructions and training session for students on use of leak tags for compressed air distribution lines

Planned activities for **2015/16** included:

- **Infographic & Newsletter:** Updating the sustainability infographic on a quarterly basis and writing a newsletter (September, January, March, Summer)
- **Communications:** Two success stories on the technical projects
- **Student Promotions:** Support during Welcome Days for sustainability engagement

Planned activities for **2016/17** included:

- **Elevators Campaign:** Target students to use stairs instead of elevators
- **Room Booking Campaign:** Target Program assistants, Dean assistants, Department assistants who book the rooms for classes and labs to book the rooms only for the hours needed

Planned activities for **2017/18** included:

- **Communications:** Working with the ESAG and the VCC Green Team, VCC produced a green e-newsletter in 2017 and a success story regarding one million Dollar savings on avoided energy cost since fiscal year 2010/11.
- **Holiday Shutdown Campaign:** Using the Holiday Shutdown checklist staff will conduct a shutdown review of your office prior to leaving for the holiday break.

Planned activities for **2018/19** included:

- **Communications:** Working with the ECAT (Environmental Committee Action Team), VCC prepared a success story regarding update savings on avoided energy cost since fiscal year 2010/11.
- **Space Heater Campaign** Energy efficient panel heaters will be replacing none energy efficient ones to save energy and reduce fire hazards.
- **Holiday Shutdown Campaign:** Using the Holiday Shutdown checklist staff will conduct a shutdown review of your office prior to leaving for the holiday break.

• Planned activities for **2019/20** included:

- **Lights off Green on Campaign:** By designing and placing "Lights Off, Green On" stickers next to light switches across all our campuses, we aim to remind people to change their behavior and save energy.

- **Holiday Shutdown Campaign:** Using the Holiday Shutdown checklist, staff will conduct a review of their offices before leaving for the holiday break.
- Planned activities for **2020/21** included:
  - **Covid - 19 Safe Energy Campaign:** We reminded people to reduce phantom power energy consumption through digital media and placed posters in building areas that were heavily used during the pandemic.
- Planned activities for **2021/22** included:
  - **Take the Stairs Campaign:** Targeting students and staff to use stairs whenever possible to reduce energy consumption and promote awareness of accessibility, considering social distancing and health and safety measures recommended by the province.
  - **Holiday Shutdown Campaign:** Using the Holiday Shutdown checklist, staff will conduct a review of their offices before leaving for the holiday break.
- Planned activities for **2022/23** included:
  - **Bundle Up + Space Heaters:** Encouraging staff to "heat your body before heating the room" to avoid increasing indoor air temperatures above 21°C during colder months and to request a space heater following the new VCC Space Heaters Operational Standard.
  - **Holiday Shutdown Campaign:** Using the Holiday Shutdown checklist, staff will conduct a review of their offices before leaving for the holiday break.
- Planned activities for **2023/24** included:
  - **Holiday Shutdown Campaign:** Using the Holiday Shutdown checklist, staff will conduct a review of their offices before leaving for the holiday break.

# Appendix E

## VCC Environmental Sustainability Strategy

### Summary of Focus Areas

<b>Carbon Reduction</b>	Reducing our carbon emissions.
<b>Climate Adaptability</b>	Ensuring our systems and buildings are resilient to climate change related impacts.
<b>Education</b>	Ensuring that environmental sustainability is incorporated into our course offerings and curriculum.
<b>Energy Conservation</b>	Using electricity and natural gas in our buildings efficiently.
<b>Engagement on Campus</b>	Offering opportunities for students, staff, faculty, and administration to learn about or participate in campus sustainability initiatives.
<b>Engagement with the Community</b>	Collaborative efforts with local community organizations, businesses, or other educational institutions to advance environmental sustainability initiatives and build resilience.
<b>Food &amp; Dining</b>	Supporting sustainable and healthy food systems, such as school gardens, local vendors, or alternative protein options in the cafeteria.
<b>Grounds</b>	Reducing the environmental impacts of our grounds and gardens through sustainable landscaping practices or initiatives to protect biodiversity on campus.
<b>Investments</b>	Aligning school investments with sustainability and climate action goals.
<b>Leadership and Governance</b>	Processes and structures to promote accountability of and progress towards environmental sustainability goals on campus, with support from senior leadership and inclusive engagement of VCC's stakeholders.
<b>Purchasing</b>	Selecting green or low carbon products and services.
<b>Transportation and Travel</b>	Promoting active transportation, such as biking and walking, or shifting to public transit or electric vehicles for school operations.
<b>Waste</b>	Reducing the total amount of waste generated as well as the amount that enters the landfill.
<b>Water</b>	Using water efficiently.



A handwritten signature in black ink that reads "Ajay Patel". The signature is fluid and cursive, with the first letters of "Ajay" and "Patel" being capitalized and prominent.

**Ajay Patel**  
President and CEO, Vancouver Community College