

Carbon Neutral Action Report Vancouver Community College

Executive Summary

Vancouver Community College is pleased to be submitting its Carbon Neutral Action Report to the Government of British Columbia. The college applauds the Province for taking the initiative to reduce Greenhouse Gas Emissions and is looking forward to working with Government further in this regard.

At the board level, the VCC board of directors requested progress reports from management with respect to conservation and sustainability efforts. This request led the college to include it as part of its formal reporting tool presented to the board on a quarterly basis.

At the executive level, the College put in place an executive advisory group on campus sustainability. This group has taken on the task of providing advice to college administration on issues and initiatives related to conservation and sustainability. Its membership includes a cross section of stakeholders, including students, faculty staff, management and volunteers. This group is also responsible for providing policy advice to management on related issues.

College-wide initiatives are outlined in the following report. Notable achievements included the installation of energy-efficient hot water tanks at the college's new building at the Broadway campus, participating in the BC Hydro Power Smart Partner Program, Providing employees with alternative transportation options, and beginning an energy efficient lighting retrofit project.

Objectives

Educating automotive students about alternative fuels. Ensuring anti-freeze and oil products are recycled and using environmentally friendly de-greasers and hand cleaners. Replacing water faucets with low flow types. Preserving habitat and species by increasing landscaped area's within all campus grounds. Participating in an effective recycling program. Committing to a campus wide tobacco free environment in participation with Fraser Health using posters designed by VCC Graphic Arts students and by implementing a VCC smoke-free policy in 2008. Adapting purchasing practices which utilize environment friendly renewable/re-usable materials such as all paper products, janitorial cleaning products and re-cycled paper plates.

Part 1: Actions Taken to Reduce Greenhouse Gas Emissions in 2008

Overview

- Re-lighting retrofit.
- Installing energy efficient hot water tanks.
- Installing Direct Digital Controls (DDC's.)
- Participating in the BC Hydro Power Smart Partner Program.
- Replacing standard motors with variable speed motors.
- Upgrading air compressors to higher efficiency types.
- Encourage alternate means of transportation such as providing Translink financial initiatives and Zip Car locations.
- Replacing exterior glazing with more energy efficient glazing.

1.1 Mobile Fuel Combustion

Actions taken during the relevant calendar year to reduce direct emissions from fuel (natural gas, ethanol blends, diesel, propane, gasoline) consumption by a vehicle or other mobile combustion source. Note that any actions related to personal vehicle use, commuting to/from work, or efforts to encourage active transportation in the community should be included in section 1.5 or 1.6 respectively.

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Encouraged use of public transit/active transportation	Completed	Record the number of staff participating in the "Translink" fare reduction initiative provided by VCC. Provide 2 parking lot spaces for the use of "Zip" cars as an alternative to owning a personal vehicle.	
Encouraged alternatives to travel in fleet vehicles – bicycles, scooters, electric carts	Completed	Installed approximately 75 new bicycle security racks in 2008	
Established travel reduction goals	Completed	Can be measured by the significant reduction in the annual budget for travel to conferences and training courses in 2008.	

1.2 Stationary fuel combustion and electricity

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Replaced # computers with EnergyStar models	Completed	Measured by the number of PC's and monitors replaced by the IT Dep't in 2008.	Approximately 250 units were replaced in 2008.
Turned off lights in unused rooms	Completed	Routinely enforced by 100% of all faculty staff and maintenance/janitorial staff in 2008.	
Replaced Refrigerators (EnergyStar rated appliance)	Completed	A gradual replacement (6 units in 2008) to more energy efficient types where financially feasible, occurred in 2 cafeteria kitchens and 20 Culinary Arts student training kitchens.	
Installed multi-function devices (and removed stand-alone printers/faxes)	Completed	Several stand alone office printers and faxes were phased out in 2008 and replaced by multi functional copying, faxing and scanning devices.	
Replaced standard bulbs with CFLs	Completed	This was practiced in 2008 in both campuses where economically feasible	
Installed motion activated lights	In progress	Ongoing introduction of motion detectors to control lighting in un-occupied areas only where economically feasible was in place in 2008.	

Undertaken lighting retrofit	In progress	Re-lighting retrofit project for the Broadway campus using more energy efficient equipment, T8's, electronic ballasts, occupation sensors & LED emergency exit lights. Feasibility studies, budget approval and project tenders were initiated in 2008 with the actual project commencing in 2009.
Implemented server virtualization	Completed	Implementation of VM Ware to consolidate servers.
Utilized desk-top power management settings on computer	In Progress	Implementation of Power Save tools.
Initiated corporate computer shut-down/wake-up for maintenance	In progress	Re-lighting retrofit for the entire campus using more energy efficient equipment, T8's, electronic ballasts, occupation sensors & LED emergency exit lights. Feasibility studies, budget approval and project tenders were initiated in 2008 with the actual project commencing in 2009. Installing energy efficient hot water tanks. Feasibility studies, budget approval and project tenders were initiated in 2008 with the actual project commencing in 2009.
Initiated or completed a building energy retrofit	In progress	An energy audit was completed in 2007 and as a result, several energy saving capital projects have been completed since and some are in progress.

1.3 Supplies

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Initiated automatic double sided printing	Completed	All photo copiers campus wide have been set up for double sided printing by 2008.	
Used collaborative software to edit on-line	In Progress	Implementation of SharePoint for document sharing and editing.	
Restructured a process to use less paper	In Progress	Less paper purchased from 2008 to 2009. Implemented a pay per print program in the Library and Learning Centre. Reduction of approximately 90% of consumable costs (paper, toner).	Previously used approximately 5000 sheets and now down to 500 sheets per month.

1.4 Travel

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Installed Video Conferencing facilities	In Progress	Looking at software solutions	

1.5 Employee Engagement

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Provided climate change education	In Progress	College to host a campus sustainability fair in April 2009.	

Provided conservation education	In progress	All automotive students receive ongoing training on how they can ensure autos are run to the highest fuel efficiency.
Developed Green Teams	Completed	Executive Advisory Group in place.
Supported Green Teams (resources)	Completed	College support to various green initiatives for example the sustainability fair
Supported professional development	Completed	Employees supported to attend green events as part of their PD

1.6 Sustainability Actions (others)

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Took water conservation measures – low flow showers or toilets, fix leaks	Completed	Measured by the number of low flow water faucets installed campus wide in 2008 (Nine faucets as well as 6 toilets)	
Used green (low-e paints)	Completed	Contractor using low VOC water based paints	

Part 2: Plans to Continue Reducing Greenhouse Gas Emissions 2009 -- 2011

Overview	Moving forward, the college will look to take action on a number of items in the near term. On the capital side, with support from the Provincial government, the college will be replacing 2 existing main hot water boilers and 2 chillers with energy efficient equipment. It will also be replacing exterior glazing, while completing the re-lighting retrofit project. The college will be focusing on a number of campus sustainability initiatives including a sustainability fair and various campus challenges specifically relating to recycling, energy efficiency, alternative transportation and reducing paper use.
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2.1 Mobile Fuel Combustion

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Establish anti-idling behaviour change program (e.g. signs, stickers, messages)	Completed	install no idle signs		
Encourage use of public transit/active transportation	In progress	All staff will continue to be encouraged to use alternate means of transportation through 09/011 by VCC providing Translink fare reduction initiatives and providing 2 Zip Car parking locations to discourage the daily use of personal vehicles to and from work.		
Encourage alternatives to travel in fleet vehicles – bicycles, scooters, electric carts	In progress	Will be measured by the number of bicycle security racks installed through 09/011		

2.2 Stationary Fuel Combustion (including electricity)

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Undertake workstation tune-ups to help staff understand what they can do to reduce personal energy use	In Progress	Employees receive email and publication notices on how to reduce personal energy use.		
Undertaken Monitor turn-off challenge	In Progress	Communication through email and newsletters to reduce power consumption by turning off monitors.		
Replace # computers with EnergyStar models	In Progress	All new Computers are energy star rated		

Encourage staff to use stairs	In Progress	Employees to receive reminders by email.
Turn off lights in unused rooms	In Progress	Installed occupancy sensors where needed
Replace other appliances (with EnergyStar rated appliance)	In progress	Will be measured by the number of converted appliances to more energy efficient types in the 2 campus cafeteria's and 20 culinary arts student teaching kitchens through 09/011 where economically feasible.
Replace standard bulbs with CFLs	In progress	The lighting retrofit project to be completed in 2009 will ensure that 100% of all campus interior and exterior lighting uses CFL's where economically practical.
Install motion activated lights	In progress	This procedure will be continued through 09/011 where economically feasible
Undertake lighting retrofit	In progress	Re-lighting retrofit for the entire campus using more energy efficient fixtures, T8's, electronic ballasts, occupation sensors & LED emergency exit lights will be completed in 2009
Initiate corporate computer shut-down/wake-up for maintenance	In Progress	investigating software solution

2.3 Supplies

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Initiate automatic double sided printing	Planned	Training for employees to take place.		
Commit to hold paperless meetings	In Progress	Employees provided information on "how to" by Dec 31. 09		
Re-use non-confidential scrap paper	In Progress	Employees provided information on "how to" by Dec 31. 09		

2.4 Employee Engagement

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Provide climate change education	Planned	Campus sustainability report to be distributed by December 31, 2009		
Provide conservation education	Planned	Campus sustainability report to be distributed by December 31, 2009		
Hold contests to change behaviour/make pledge	Planned	Campus challenges to be launched by December 31, 2009		
Hold contests/support to generate ideas	Planned	Campus sustainability report to be distributed by December 31, 2009		
Provide green tips	Planned	Campus sustainability report to be distributed by December 31, 2009		

2.6 Sustainability Actions (others)

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Improve recycling measures	Planned	Enhanced recycling program in development		