

Carbon Neutral Action Report

British Columbia Institute of Technology

Executive Summary

BCIT Burnaby Campus has saved over \$1.3 Million in energy costs since 2003, helping to reduce our greenhouse gas emission by over 4,400 tonnes. during that period

BCIT is committed to protecting and enhancing the environment for future generations by using and managing its own physical environment in ways that promote sustainability.

In an effort to increase energy efficiency and reduce greenhouse gas emissions, BCIT has embarked on a comprehensive Energy Management program in 2001. The program has been carried out in phases over the last eight years and continues today. The scope includes over 55 buildings on the Burnaby Campus and over 150,000 square meters of occupied space.

In recognition of the impressive results achieved, BCIT was presented with a PowerSmart Excellence Award from BC Hydro in 2004.

Objectives

1. Continuous optimization (focus on maintaining savings achieved to date)
2. Change-out equipment that are more energy efficient.
3. Reduce our ecological footprint through education and employee engagement
4. Develop an Information Technology strategy to reduce energy consumption by computers and to develop a strategy to encourage users to assist turning off computer equipment..

Part 1 Actions Taken to Reduce Greenhouse Gas Emissions in 2008

Overview

Campus wide lighting relamp program - changing 90,000 32W T8 tubes to 30W
Upgrade North East Campus shops lighting from HID to T5 technology
Replace incandescent with CF where applicable

1.2 Stationary fuel combustion and electricity

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Turned off lights in unused rooms	In progress		Security guards and cleaning staff are advised to turn off lights during the off hours.
Installed multi-function devices (and removed stand-alone printers/faxes)	In progress		Information Technology Services and the Imaging department is performing an audit of all stand alone devices.
Undertaken lighting retrofit	Completed		Campus wide lighting relamp program - changing 90,000 32W T8 tubes to 30W Replace lights in the shops in the northeast quadrant of the campus from HID to T5 technology.
Utilized desk-top power management settings on computer	In progress		Information Technology Services is in the progress of identifying opportunities.
Initiated or completed a building energy retrofit	In progress		In the process of updating an existing Energy Audit.

1.3 Supplies

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Initiated automatic double sided printing	In progress		Users are encouraged to print double sided to reduce paper consumption and assist with reducing operating costs.
Changed document template margins			
Committed to hold paperless meetings	In progress		Some departments are encouraging meeting participants to bring their laptops and not issuing paper documents.
Developed document library (online and one printed copy) for large documents	In progress		Providing access to information from various groups on the document library to reduce the need to print documents and the reduction in the requirements to courier documents.
Encouraged re-use of furniture and equipment	In progress		Furniture is reused wherever practicable.

1.4 Travel

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Installed Video Conferencing facilities	In Progress		Incorporating additional video conferencing facilities to provide remote learners access to education without having to travel to BCIT to receive it and to provide staff the opportunity to meet without having to commute to a specific location.
Supported alternative travel (bike/skateboard/walk/transit) for meetings	In Progress		Developing plans that will support alternative transportation modes.

1.5 Employee Engagement

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Provided climate change education	in progress		Environmental committee consisting of cross sectional representation of the institute to discuss sustainability initiatives for the campus.
Provided conservation education	in progress		Host Eco-Fairs and presentations throughout the school year.
Hired a Sustainability Manager	Completed		Hired a Sustainability Manager, funded by BC Hydro to assist with developing a sustainability policy and to identify opportunities for sustainability .

1.6 Sustainability Actions (others)

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Supported composting	In progress		Worm composts have been installed to handle the vegetable food waste.
Supported sustainable procurement practices	In progress		Purchasing energy star products.
Adopted low-carbon contracting practices			

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

Overview	<p>Overview</p> <p>BCIT plans to provide</p> <ol style="list-style-type: none"> 1. Continually reduce its energy consumption with an emphasis on maintaining savings achieved to date 2. Change-out equipment that are more energy efficient. 3. Reduce our ecological footprint through education and employee engagement 		
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2.1 Mobile Fuel Combustion

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Encourage use of public transit/active transportation	In progress		Identifying improved Transit opportunities and the discussion with Translink on the possibility of incorporating a U-Pass program for the campus.	31-Mar-10
Encourage alternatives to travel in fleet vehicles – bicycles, scooters, electric carts	In progress		Purchasing electric carts to assist with commuting on the Burnaby campus	On going

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	Planned		With the assistance of the Student Association, educational literature and workshops have been developed. Handouts identifying what each individual can do personally to reduce energy consumption.	On going
Turn off lights in unused rooms	In progress		Encourage all concerned to turn off lights when they are not needed.	on going
Install multi-function devices (and remove stand-alone printers/faxes)	In progress		Complete the audit of stand alone devices and to develop a plan to replace with multi-function devices. In the process of consolidating office areas to allow for sharing of devices.	On going
Replace standard bulbs with CFLs	In progress		During the relamping process, the institute is replacing standard builds with CFLs.	31-Mar-10
Install motion activated lights	In progress			
Undertake lighting retrofit	In progress		Replacing lights in the shop areas.	31-Mar-10
Undertake building energy audit at LOCATION(s)	In progress		Updating the energy audit for the Burnaby campus.	31-Mar-10
Initiate or complete a building energy retrofit	In progress		On going. Annual projects to reduce energy consumption through the identification and replacement of inefficient equipment.	On going

2.3 Supplies

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Commit to hold paperless meetings	In progress			on going
Develop document library (online and one printed copy) for large documents	In progress		File management protocol is in the process of being developed to reduce the need to distribute paper copies of information.	on going
Use laptops/tablets	In progress		Reviewing the possibility of issuing laptops to staff and instructors in lieu of desktops.	on going
Encourage re-use of furniture and equipment	In progress		Office moves will try to re-use furniture wherever practicable. Wherever possible furniture is not moved but left in the existing location and new user adapts to the furniture already in the room.	on going

2.4 Travel				
Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Install Video Conferencing facilities	In Progress		Providing additional video conferencing facilities to all for remote access to meetings and learning by our students.	on going
2.5 Employee Engagement				
Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Provide climate change education	In progress		Through the Environmental Sustainability Practices Committee, the various BCIT constituents are coordinating the education efforts.	On going
Provide conservation education	In progress		Hosting seminars and workshops to educate the BCIT community. Hired a Sustainability Manager to incorporate sustainability practices in the curriculum.	On going
Provide green tips	In progress		Developing green tips utilizing the expertise of the Sustainability Manager.	On going
2.6 Sustainability Actions (others)				
Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Improve recycling measures	In progress		Providing separate bins for different materials to be recycled.	on going
Support composting	In progress		Identifying composting opportunities on the campus.	on going
Use re-usable dishes				
Purchase green cleaning products	In progress		Encourage the contract cleaners to utilize sustainability practices.	on going