North Island College – 2010 Carbon Neutral Action Report

Executive Summary

North Island College is a community college committed to high quality and excellence in our programs and services. One of our visions is a respectful steward of our unique natural setting.

Our actions in 2010 towards becoming carbon neutral include education and awareness of our place in our communities.

We have ongoing commitments to refit equipment and upgrade services to improve efficiency and reduce greenhouse gas emissions. North Island College endeavors to explore and test efficient technologies for building infrastructure.

Our reduction in emissions is offset by the addition in 2010 of a LEED Gold target Trades Building to the Comox Valley Campus. This building has brought the college forward in new technologies and identified opportunities to apply to the college facilities.

We continue to support community initiatives like Bike to Work Week and added new change facilities for bike commuters in 2010. We will work with local community and governments to support initiatives and awareness.

2010 Greenhouse Gas Emissions:

North Island College's greenhouse gas emissions in 2010 were 1,069 tonnes of CO2e (equivalent).
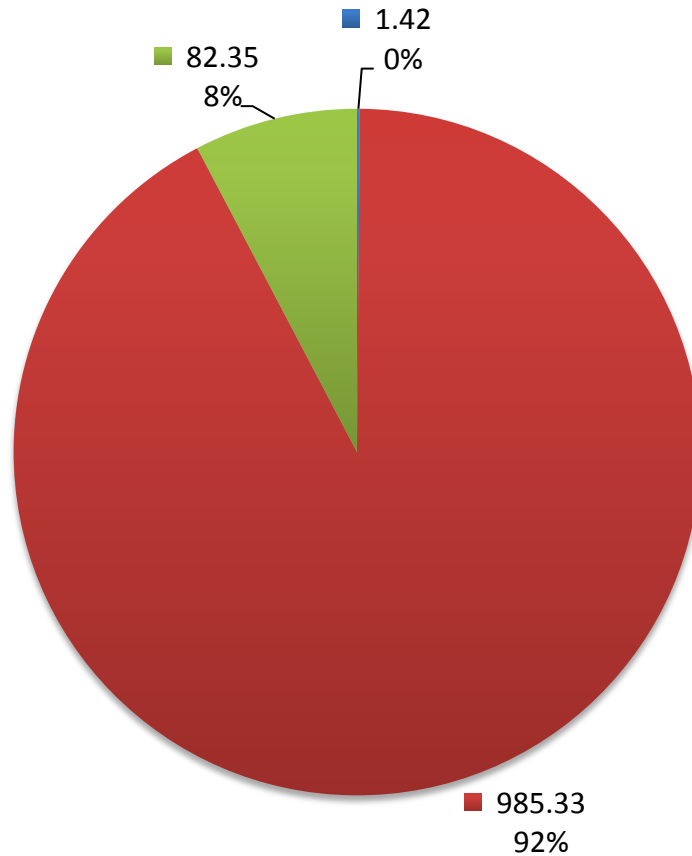
Overview:

- **Actions taken in 2010 to reduce Greenhouse Gas Emissions**
    - Upgrade lighting, controls and glazing.
    - Install LED lighting in public spaces, main halls of Trades Training Building
    - Boiler replacement with condensing technology
    - Initiate student central printer control (pay for print), upgrades to net printers from stand alone desk units to centralized multitask units.

- **Plans to Continue Reductions 2010 onward.**
    - Educate users and increase awareness of ongoing efforts to become carbon neutral.
    - Explore opportunities to increase recycling in all college communities.
    - Invest in energy efficient upgrades to existing infrastructure.
    - Bring real time building energy metering for public education and awareness.

Carol Baert,
Vice President, Finance and Facilities
North Island College

April 30, 2011

North Island College
Greenhouse Gas Emissions by Source
for the 2010 Calendar Year (tCO$_2$e*)

■ 1.42
0%

■ 82.35
8%

■ 985.33
92%

Total Emissions: 1069.1

■ Mobile Fuel Combustion (Fleet and other mobile equipment)

■ Stationary Fuel Combustion and Electricity (Buildings)

■ Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2010

Total offsets purchased: **1069.1**. Total offset investment: $**26,727.50**. Emissions which do not require offsets: **0** **

*Tonnes of carbon dioxide equivalent (tCO$_2$e) is a standard unit of measure in which all types of greenhouse gases are expressed based on their global warming potential relative to carbon dioxide.

** Under the *Carbon Neutral Government Regulation* of the *Greenhouse Gas Reduction Targets Act,* all emissions from the sources listed above must be reported. As outlined in the regulation, some emissions do not require offsets.

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Actions Towards Carbon Neutrality

The actions listed below contribute to a reduction in greenhouse gas emissions from sources for which public sector organizations are responsible under the carbon neutral government regulation of the *Greenhouse Gas Reduction Targets Act.*

Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Mobile Fuel Combustion (Fleet and other mobile equipment)						
Behaviour change program						
Encourage carpooling in fleet vehicles	Completed in 2010		Web based car pool site for staff and employees		2006	2010
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)						
Planning/management						
Reduce office space (square meters) per employee	Ongoing/In Progress		Review of current utilization	propose standards out of results from utilization	2008	No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress		Trades Building has real time metering, completion 2011	Energy dashboard in entrance to display real time usage.	2010	No End Date (Continuous)
Owned buildings						
Establish energy performance baseline for owned buildings	Completed in 2010		Energy audit in 2009, SD72 completed audit in 2010		2007	2010
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Ongoing/In Progress		New Trades Building Construction target LEED Gold level, completion 2011	Complete construction and apply	2010	2012
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress		Replaced boilers in Port Alberni, completion 2011	upgrade lighting Port Alberni	2006	No End Date (Continuous)
Retrofitting owned buildings						
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress		Renovations are upgraded as opportunities arise, Port Alberni boilers retrofit to condensing model	Ongoing planning of renos includes HVAC review	2006	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress		Retrofitting lights is standard procedure, Port Alberni Light retrofit started. LED lighting installed in Trades Building	Other campuses are being scheduled for retrofit in small projects. LED lighting installed in Tyee Hall lounge	2006	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress		Controls were upgraded on HVAC as projects were done	Ongoing evaluation for control retrofit as projects are identified	2006	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress		Glazing retrofit upgrade as determined by need	Ongoing evaluation of existing glazing and replacement	2006	No End Date (Continuous)
Install an on-site renewable energy demonstration project	Ongoing/In Progress		Solar panels installed on Trades Building completion 2011	Real time metered	2010	2011
Leased buildings						
Establish energy performance baseline for leased buildings	Completed in 2010		Energy audit done in 2009, included Tebo Facility		2008	2010
IT power management						
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress		Done when units are purchased, standard procedure	Ongoing start up of new/ retasked equipment	2006	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress		Done when units are purchased, standard procedure	Ongoing for new and retasked units	2006	No End Date (Continuous)

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Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress			Ongoing program to install central multifunction devices as equipment is updated.	Net printer/multifunction devices being installed as upgrades.	2007	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress			Completed and installed on upgraded equipment	Ongoing installation on new equipments as upgraded	2007	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress			replaced older models	Ongoing upgrades as units are upgraded/replaced due to obselescence	2007	No End Date (Continuous)
Appliances and electronic devices							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress			Replaced old fridge in IMC Station, library, admin area CVC	Replace units as needed	2006	No End Date (Continuous)
Replace desk lamp incandescent bulbs with compact fluorescent (CFL) bulbs or source more efficient desk lamps for future purchases	Ongoing/In Progress			Purchase of cfl model for new stations, current lamps are replaced as needed.Some progress replacing but finding user difficulty with o/h flourescent lighting.	ongoing replacement as needed.	2009	No End Date (Continuous)
Behaviour change program							
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			Newsletter/email, group meetings	Continue to educate users	2007	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress			Emailed message about energy savings	Continue to educate users	2007	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress			Poster program at elevator and stairs for employees and students in high use location	Ongoing evaluation of opportunities	2008	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Stickers to remind users installed at light switches	Evaluate communication opportunities	2006	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			Newsletter/email	Continue to educate users	2007	No End Date (Continuous)
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	In Development	20	% of total paper purchased contains 30% recycled content	40% recycled paper purchased for testing and implemented through purchasing	Continued testing of recycled papers for machine compatibility	2009	No End Date (Continuous)
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	85	% of network printers or photocopiers are set to automatic double-sided	Standard set up is double sided printing on all network printers for students and on staff units if technology allows	Ongoing upgrade on network printers.	2009	No End Date (Continuous)
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	Ongoing/In Progress	98	% of network printers have 'print and hold' settings applied	Technology is now in place for all multipurpose units. Campbell River Campus staff are using this feature.	Ongoing review of educating user groups to specific unit operation	2010	No End Date (Continuous)
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress			Installed software Sharepoint as need is identified	Plan install of portal (sharepoint system) for all users	2009	No End Date (Continuous)
Post materials online that were previously printed	Completed in 2010			Web based documents available.		2007	2010

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Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Behaviour change program						
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress		IT Department made shareware available	New browser to be introduced Portal	2009	2011
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Completed in 2010		Education provided on MS product		2007	2010
Encourage re-use of scrap paper	Ongoing/In Progress		Print shop provides scrap paper pads with discards	Continue awareness	2007	No End Date (Continuous)

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Actions to Reduce Provincial Emissions and Improve Sustainability

The actions listed below contribute to a reduction in greenhouse gas emissions from sources that fall outside of the reporting requirements defined in the carbon neutral government regulation of the *Greenhouse Gas Reduction Targets Act.* Public sector organizations can optionally use this section to report on actions that will help British Columbia meet its provincial greenhouse gas reduction targets, engage the public, and improve environmental sustainability across all aspects of their organization.

Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Business Travel						
Virtual meeting technology						
Make desktop web-cameras available to staff	Ongoing/In Progress		as requested	IT support to install and train users	2008	No End Date (Continuous)
Behaviour change program						
Train staff in web-conferencing	Ongoing/In Progress		Training information distributed to managers	training opportunity with roll out of Portal based system to college	2009	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress		Distance Video conferencing facilities installed at all campuses and in frequent use.	IT provides support for conferences	2006	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress		staff are encouraged to use video links and webinars	training opportunity with roll out of Portal based system to college	2006	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress		Ongoing reminders to car pool	Education of users on opportunities	2007	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress		Installed bike racks, showers, change rooms	Improve bike rack installation, promote bike to work week	2006	No End Date (Continuous)
Education, Awareness, and Engagement						
Team-building						
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	In Development			Research opportunities for partnership	2011	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	In Development			Research opportunities for partnership	2011	No End Date (Continuous)
Awards/Recognition						
Establish a sustainability/green awards or recognition program	In Development			Investigate program opportunities and partnerships	2011	No End Date (Continuous)
Staff Professional Development						
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress		LEED Education	Ongoing education BOMI	2008	No End Date (Continuous)
Staff awareness/education						
Provide education to staff about the science of climate change	In Development			education information being evaluated and roll out in electronic format	2011	No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress		Education tours on water management	Install signage to support awareness	2007	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress		Education through tours	Investiget opportunities in new Portal system for education	2006	No End Date (Continuous)

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Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Provide sustainability education during new staff orientation	Ongoing/In Progress		Orientation includes training on HVAC, green systems	Continuous HR program for new employees	2007	No End Date (Continuous)
Client/public awareness/education						
Provide education to clients/public about the science of climate change	In Development			education information being evaluated and roll out in electronic format	2011	No End Date (Continuous)
Provide education to clients/public about the conservation of water, energy, and raw materials	Ongoing/In Progress		educational tours	Install signage to support awareness	2007	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	In Development			currently developing signage and will be the basis for public messages on web	2011	2012
Other Sustainability Actions						
Water conservation						
Put in place a potable water management strategy to reduce potable water demand of building-level uses such as cooling tower equipment, toilet fixtures, etc. and landscape features	Ongoing/In Progress		Low flow aerators on lavatories, ongoing replacement of toilets as needed	Continue with low flow replacement. New buildings are low flow fixtures (standard)	2007	No End Date (Continuous)
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	Ongoing/In Progress		Trades Building is not irrigated LEED sustainable. Erosion plan in place	Onging monitoring of LEED erosion and sediment control measures	2010	No End Date (Continuous)
Waste reduction/diversion						
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	Completed in 2010		Community resources engaged to recycle and reuse (RE-Store)		2007	2010
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress		Ongoing discussion/inventory of department stock	Develop response resources for disposal.	2007	No End Date (Continuous)
Procurement (non-paper supplies)						
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	Ongoing/In Progress		evaluation for compatibility with current equipment	Ongoing testing of products available on market.	2007	No End Date (Continuous)
Establish green standards for goods that are replaced infrequently and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)	In Development		Ongoing discussions with purchasing to identify options	identify green opportunities to evaluate costs	2010	No End Date (Continuous)
Building construction, renovation, and leasing						
Incorporate lifecycle costing into new construction or renovations	In Development		Evaluated ans selected finishes for test installation	Testing new finishes for durability and costs	2010	No End Date (Continuous)
Commuting to and from home						
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		Ongoing discussions with transit to improve service, ride to bike week promotion, bike racks, change rooms installed	Ongoing transit discussions, install bike racks	2007	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress		additional showers for staff and students installed	Promote awareness of avialable facilities	2009	No End Date (Continuous)
Provide secure bicycle storage	Ongoing/In Progress		Bike racks installed	increase bike racks	2006	No End Date (Continuous)