

College of New Caledonia - 2009 Carbon Neutral Action Report

Executive Summary

The Sustainability and Energy Committees have continued their efforts to improve the sustainability of CNC operations. This includes advances within CNC's partnership with BC Hydro under their Energy Manager Program. Plans were developed in 2009 to begin implementation of energy conservation measures identified in 2008 energy audits. Several of these measures were completed in 2009. Design of two new LEED Gold buildings was initiated in 2009. Construction completion of these is expected in 2011.

Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2009

Key initiatives undertaken in 2009 include:

- CNC's IT department completed numerous projects that reduce energy and paper consumption including installing and training staff on the use of video conferencing and paperless management software; setting printer and photocopier defaults to double-sided; purchasing server virtualisation software; applying auto-sleep settings on printers, copiers and fax machines;
- CNC initiated an Energy Awareness Program and established a volunteer Green Team.
- CNC commissioned a detailed feasibility study to identify and quantify energy conservation opportunities in upgrading the Prince George campus power plant that heats and cools the majority of buildings on that campus. CNC management is now evaluating the options presented and, depending on funding availability, hopes to move forward with the preferred option in 2010.
- In 2009 the Prince George campus was identified as a good candidate for BC Hydro's Continuous Optimisation Program. CNC began work in compiling applications to BC Hydro for two buildings under this program. These applications will be submitted to BC Hydro in 2010.
- Designs were completed for two new Trades Buildings – one on the Prince George campus and one on the Quesnel campus. These buildings are targeting LEED Gold certification.
- Three energy conservation measures identified in 2008 Prince George campus audit were implemented in 2009: holiday schedules programmed into DDCs; domestic hot water piping insulated; and, air handling unit AHU-720 operating hours aligned with space usage.
- A T12 to T8 fluorescent lighting retrofit was completed in March 2009 at the Prince George campus. A lighting retrofit of the Prince George gymnasium was initiated in late 2009 for completion in early 2010.
- As additional energy savings measures, building automation systems at the Prince George campus were adjusted for holiday schedules and air handling unit AHU-720 operating hours were aligned.

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

CNC will be focusing on the following key areas of greenhouse gas reduction over the next three years:

- Continuing development of a long-term strategic energy management plan including prioritising and implementing energy conservation capital projects as funding allows;
- Improving awareness and engagement of staff and students regarding energy and greenhouse gas reduction;
- Aligning CNC policy with energy and greenhouse gas reduction plans.

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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 12/31/09)	Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Mobile Fuel Combustion (Fleet and other mobile equipment)						
Vehicle fuel efficiency						
Replace vehicles with more fuel-efficient models	Ongoing/In Progress		Fuel consumption is part of new vehicle procurement evaluation criteria.	Continue practice	1990	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress		Vehicle right-sizing is part of new vehicle procurement evaluation criteria.	Continue practice	1990	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress		Entire fleet is subject to weekly maintenance checks and scheduled maintenance based on vehicle mileage.	Continue practice	1990	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress		Fuel consumption is part of new vehicle procurement evaluation criteria.	Continue practice	1990	No End Date (Continuous)
Behaviour change program						
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Ongoing/In Progress		Communications issued for drivers at CNC to observe anti-idling behaviour. Anti-idling signs posted on Prince George campus.	Continue to target anti-idling as part of Awareness Program and install anti-idling signs at all campuses.	2009	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress		Carpooling in fleet vehicles is encouraged/practiced as an informal policy.	Continue to target carpooling in fleet vehicles as part of Awareness Program.	2009	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress		Identified Carpool.ca as an opportunity to encourage carpooling.	Working with UNBC, City of Prince George and Northern Health on Carpool.ca initiative.	2009	No End Date (Continuous)
Other Mobile Fuel Combustion Actions						
Review fleet size.	complete		Reduced fleet by 2 vehicles in 2009.		1990	No End Date (Continuous)
Delivery of mail, freight and packages by staff visiting other campuses where possible.	Ongoing/In Progress		Delivery of mail, freight and packages by staff visiting other campuses where possible.	Continue practice	1990	No End Date (Continuous)
Consolidated Driver Services to reduce off campus trips.	Ongoing/In Progress		Consolidated Driver Services to reduce off campus trips.	Continue practice	2009	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)						
Planning/management						
Reduce office space (square meters) per employee	Ongoing/In Progress		Implemented during Brink building renovation.	Part of new Prince George Tec Building design process.	2009	No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	In Development		Identified Prince George campus facilities suitable for BC Hydro Continuous Optimization Program.	Submitted application for BC Hydro Continuous Optimization Program in February 2010. Will further evaluate this initiative pending BC Hydro application approval.	2009	2012
Owned buildings						
Establish energy performance baseline for owned buildings	Ongoing/In Progress		Owned building baseline complete for Prince George Campus and in process for satellite campuses.	Complete baselining for owned buildings in satellite campuses.	2008	2010

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Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)		Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Replace other appliances or electronic devices with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress			Purchasing Energy Star appliances and electronics is an unofficial purchasing policy.	Will be considered as official purchasing policy amendment in FY2011.	1993	No End Date (Continuous)
Behaviour change program							
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress			Has been targeted in Energy Awareness Program (email reminders, Green Team focus)	Continue to target as part of Energy Awareness Program.	2009	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Has been targeted in Energy Awareness Program (email reminders, Green Team focus)	Continue to target as part of Energy Awareness Program.	2007	No End Date (Continuous)
Other Stationary Fuel Combustion and Electricity Actions							
Energy Awareness Program	Ongoing/In Progress			CNC Green Team formed	Will consider options for communicating Green Team and other sustainability initiatives to faculty, staff, students and the general public	2009	No End Date (Continuous)
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	6	% of total paper purchased contains 30% recycled content	Currently developing paper purchasing strategy in conjunction with Prince George School District 57 and City.	Continue to develop and implement paper purchasing strategy.	2008	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	0	% of total paper purchased contains 100% recycled content	Currently developing paper purchasing strategy in conjunction with Prince George School District 57 and City.	Continue to develop and implement paper purchasing strategy.	2008	No End Date (Continuous)
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress			All photocopiers and printers capable of double-sided were set in Aug/Sept 2009.	Continue to switch all new printers and photocopiers to automatic double-sided upon installation.	2009	No End Date (Continuous)
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	In Development			Began evaluating Paper Cut print monitoring/cost allocation software.	Paper Cut evaluation will be done by end of 2010. If favourable results will be implemented summer 2011	2009	No End Date (Continuous)
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress			A small pilot was initiated.	Further evaluation of software options is planned for 2011.	2009	No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress			Documents are scanned and saved into a virtual library for back-office functions. I-Compass software implemented to allow electronic documentation for College Board and Education Council meetings.	Seek additional opportunities.	2009	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			Many materials are now posted online (e.g. HR requests and distributes job application resumes electronically, online Newsletter)	Seek additional opportunities.	2009	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Complete			This has been in place for over 3 years.		2006	No End Date (Continuous)
Behaviour change program							

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Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)		Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development				Will be considered pending results of software evaluation.	2010	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Complete			Software for paperles meetings (I-Compass) purchased in December 2008. Software installed and in-use as of May 2009.		2009	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress			Implemented in some areas.	Seek additional opportunities through Awareness Program.	1990	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 12/31/09)	Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Business Travel						
Virtual meeting technology						
Make desktop web-cameras available to staff	Ongoing/In Progress		A limited number of cameras is available to staff upon request.	Expanding access to personal web cams will be considered in 2012.	2008	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Ongoing/In Progress		Installed one video conf room in each campus (Life Size software). Successfully used for meetings throughout the year.	Requirement for more meeting rooms will be evaluated on ongoing basis.	2009	No End Date (Continuous)
Behaviour change program						
Train staff in web-conferencing	Ongoing/In Progress		Training conducted on an as-required basis.	Continue training conducted on an as-required basis.	2008	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress		Training conducted on an as-required basis.	Continue training conducted on an as-required basis.	2009	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress		Has been targeted in Energy Awareness Program (email reminders, Green Team focus)	Continue to target as part of Energy Awareness Program.	2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress		Has been targeted in Energy Awareness Program (email reminders, Green Team focus)	Continue to target as part of Energy Awareness Program.	2009	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress		Has been targeted in Energy Awareness Program (email reminders, Green Team focus)	Continue to target as part of Energy Awareness Program.	2009	No End Date (Continuous)
Education, Awareness, and Engagement						
Team-building						
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Complete		Green Team formed in 2009 as part of Energy Awareness Program.		2009	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress		College staff has been allocated for participation in BC Hydro Energy Manager Program. Staff are encouraged to become involved in Green Team initiative.	Evaluate resource allocation on an ongoing basis.	2009	No End Date (Continuous)
Awards/Recognition						
Establish a sustainability/green awards or recognition program	In Development			Consider as part of Awareness Program.	2009	No End Date (Continuous)
Staff Professional Development						
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress		Evaluated on an opportunity-specific basis.	Continue to evaluate on an opportunity-specific basis.	2009	No End Date (Continuous)
Staff awareness/education						
Provide education to staff about the science of climate change	In Development		Some information has been disseminated (e.g. Emails, library displays)	Identify and implement additional opportunities.	2009	No End Date (Continuous)

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Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Provide education to staff about the conservation of water, energy, and raw materials	In Development		Some information has been disseminated (e.g. Emails, library postings)	Identify and implement additional opportunities.	2009	No End Date (Continuous)
Provide green tips on staff website or in newsletters	In Development		Some information has been disseminated (e.g. Emails, library postings)	Identify and implement additional opportunities.	2009	No End Date (Continuous)
Client/public awareness/education						
Provide education to clients/public about the science of climate change	Ongoing/In Progress		Some information has been disseminated to students (e.g. Emails, library displays); public not yet targeted.	Identify and implement additional opportunities.	2009	No End Date (Continuous)
Provide education to clients/public about the conservation of water, energy, and raw materials	Ongoing/In Progress		Some information has been disseminated to students (e.g. Emails, library displays); public not yet targeted.	Identify and implement additional opportunities.	2009	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	Ongoing/In Progress		Some information has been disseminated to students (e.g. Emails, library displays); public not yet targeted.	Identify and implement additional opportunities.	2009	No End Date (Continuous)
Other Sustainability Actions						
Water conservation						
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	In Development		PG campus washroom renovations continued using low flow fixtures.	Continue to replace washroom fixtures with low flow models as funding allows.	2005	No End Date (Continuous)
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	Ongoing/In Progress		In place in Quesnel campus.	In process for new Prince George Tec and Quesnel Trades Buildings.	2009	No End Date (Continuous)
Procurement (non-paper supplies)						
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	In Development		Recycled content paper products used in washrooms.	Will be defining best practices and roll-out plan.	2009	No End Date (Continuous)
Building construction, renovation, and leasing						
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	Ongoing/In Progress		Reuse or sell used materials where possible.	Continue practice.	1990	No End Date (Continuous)
Commuting to and from home						
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		Alternate forms of commuting has been targeted as part of Awareness Program. Implemented U-Pass program.	Continue to target alternate forms of commuting in Awareness Program.	2009	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress		Shower and locker facilities available at most campuses.	Consider opportunities for providing showers where none are currently available.	1990	No End Date (Continuous)
Provide secure bicycle storage	Complete		Bicycle storage available at all campuses.		1990	No End Date (Continuous)