



CNC Quesnel Campus

College of New Caledonia

2011 Carbon Neutral Action Report

Executive Summary

The College of New Caledonia remains committed to reducing its overall energy consumption and promoting green initiatives. A highlight for the 2011 period was the completion of two new trades training facilities at our Prince George and Quesnel campuses, both buildings have been constructed to LEED gold standards. We continue to explore various avenues through an integrated approach to improving equipment and infrastructure in order enhance our students and other building occupants experience at the College while giving consideration to the environment.

Actions taken to reduce greenhouse gas emissions in 2011

- CNC's Energy Management Program began expansion to the Regional Campuses. Walkthrough audits of these facilities have identified several energy conservation opportunities, and monthly energy reporting to Regional Managers has begun.
- CNC applied to the Provincial Government for \$1.7 million to upgrade the Main Campus Power Plant and HVAC peripherals. An RFP has been drafted for engineering services to prepare a longterm space heating, cooling, and ventilation strategy and to design the first capital upgrade phase of the strategy as defined by risk-based priorities and available budget. Both BC Hydro and Fortis BC have been approached as potential partners in this project.
- In January 2011, CNC received 100% provincial government funding approval for a solar water heating system that was installed on the Student Residence and commissioned in late August 2011. The system will supplement the Residence's domestic hot water system and is expected to displace 134 GJ/year natural gas (\$1,600 including avoided carbon emissions offset payments). The system demonstrates CNC's leadership in supporting clean, renewable energy sources and could provide Trades Program educational opportunities in the future.
- In late April 2011 CNC installed programmable thermostats on all existing Nicholson Building space heating equipment (radiant gas heaters, two furnaces, and one make-up air unit). This is expected to significantly improve this building's natural gas consumption performance.
- In July 2011, all showerheads in the Student Residence were replaced with low flow models. This
 project is expected to save approximately 368 GJ (\$4,500) annually in natural gas. A new Energy
 Star domestic hot water heater was also installed in the Residence to replace a unit that had
 failed. The Energy Star water heater is expected to save approximately 4 GJ annually.
- Although the Student Residence has a dedicated natural gas service, it draws its electricity from
 the Main Campus service. To better understand Residence operating costs and to be able to
 target resident behavior of conservation, a pulse output meter was installed on the Residence's
 electricity feed and was integrated with the Pulse Energy software running on the Brink Building.
 This is the first stage of CNC's sub metering strategy.
- In September 2011, CNC began offering a Medical Radiography program. Two existing rooms were renovated for this purpose. Recognizing that X-ray equipment associated with the program will increase Main Campus electricity consumption and demand, CNC required during the service procurement process that energy efficiency be built into the design for Med Rad mechanical and lighting systems. An energy-efficient roof-top unit was installed with variable speed controls and an air-side economizer that will allow the system to operate in free cooling model. Design simulations show that equipping the unit with an economizer will mean that it will operate in free cooling mode to deliver the vast majority of space cooling demand; mechanical cooling will be required for only a very small percentage of the time. Inefficient T12 fluorescent lighting in the area was upgraded to occupancy-controlled, dimmable, energy-efficient, T8 fluorescents. Annual lighting savings for this retrofit are estimated at approximately \$350 in consumption (5,300 kWh/year) and up to \$180 in demand (1.8 kW).
- Security staff continues nightly manual shut down of Prince George Main Campus common area lighting. This ongoing initiative is estimated to save 84,000 kWh/year (\$5,600/year3).

- From May through August 2011, access was restricted to computer labs and classrooms that
 were not scheduled for Intersession classes. Lights and electronic equipment was turned off,
 thermostat settings were increased (to avoid unnecessary cooling), blinds were drawn (to
 minimize solar gain), and doors were locked. This initiative saved an estimated 35,400 kWh
 (\$2,300) over the four-month period.
- In September 2010, the Brink Building was accepted into BC Hydro's Continuous Optimization program. Enersolv Design + Build Limited began its work as Service Provider in December 2010 and conducted a site visit in January 2011. In May 2011, Enersolv's Master List of Findings was submitted to and approved by BC Hydro. In executing the BC Hydro Continuous Optimization Agreement, CNC has committed to implementing energy efficiency upgrades as identified by Enersolv and with a bundled simple payback of less than two years up to a total value of \$15,000. CNC selected Pulse Energy Incorporated as EEM software provider. BC Hydro and Fortis BC revenue meters were upgraded to pulse output meters. The Pulse system began collecting energy consumption data in July 2011. The data will be used by the system to develop a predictive model for Brink Building energy consumption. Pulse will build alarms into the model that will alert the CNC building operator when out of tolerance energy consumption conditions arise. These real-time alerts will allow the operator to investigate and correct the causes of conditions that might otherwise have gone unnoticed until utility bills were received and analyzed, or have gone unnoticed altogether. BC Hydro covers the EEM software licensing fees for five years.
- In October/November 2011, 14 CNC air handling units (AHUs) were pressure cleaned to reduce electricity required to move air through the coils. BC Hydro provided more that 50% of the project funding. The project is expected to save 81,034 kWh (approximately \$5,200) annually.
- Fortis BC provided funding for two walkthrough-level energy audits in 2011: one for the Main Campus and one for the Brink Building. The audits made recommendations that could save approximately 3,880 GJ (approximately \$26,800) annually if implemented. The majority of these savings are in Boiler Plant upgrades that would be covered in the Power Plant upgrade.
- In FY2011, work was initiated with the Human Resources department to identify jobs within the College with strong links to energy consumption. In FY2012, CNC's Energy Manager worked closely with staff to ensure that energy conservation played a significant role in the job description used to replace the Power Plant Supervisor. Responsible for Power Plant and building systems operation, this role is most closely linked to energy consumption within the organization. Work will continue in FY2013 to include energy conservation language and expectations in the job descriptions and performance evaluation criteria for targeted positions.
- Monthly reporting of energy consumption and cost data to Regional Campuses began in 2011.
- CNC recognizes that engaging the student body is very important in developing an energy conservation/sustainability culture on campus. A Green Team was established in the Student Residence in the autumn semester of 2011. An energy awareness and reporting strategy is under development that will target residents for conservation. With installation of the

Residence's pulse output sub-meter, both electricity and natural gas consumption can now be monitored and reported to residents.

 In total, the Energy Management Program has avoided approximately \$75,000 in energy and carbon emissions offset payments and 135 tonnes of carbon dioxide equivalent emissions.

2011 Greenhouse Gas Emissions: 1442 tonnes

Offsets Applied to become Carbon Neutral in 2011: 1441 tonnes

Plans to Continue Reducing Greenhouse Gas Emissions 2012-2014

| • | In 2012 CNC will continue to build upon its foundation of energy management best practices in the following areas: |
|---|--|
| | ☐ Energy efficiency projects |

□ Capital projects with energy efficiency opportunities□ Major Capital Projects

□ Non-capital initiatives

Program expansion to regional campuses

□ Revolving fund

- Continue to work with the Purchasing Department and project teams to ensure that language is included in purchase documentation (RFPs, RFQs, tenders, service contracts, etc.) that requires life cycle energy consumption to be considered in evaluating equipment specifications and project designs.
- Work with the Facilities Services Department through review and recommendations where applicable to amend the existing preventative maintenance program to ensure that each major type of energy consuming equipment is maintained at peak energy efficiency in accordance with industry best practices.
- CNC anticipates that annual capital allowance (ACA) budgets will continue to be modest for the
 foreseeable future. Recognizing that this could limit the ability of the College to implement nonessential energy conservation projects, CNC will investigate the feasibility of establishing an
 energy conservation project revolving fund. In principle, the fund would establish a process
 whereby verifiable savings from energy projects would be banked either fully or partially to
 fund future energy conservation projects.



CNC Prince George Student Residence Building with newly installed solar panels

Penny Fahlman, Vice President Finance and Administration

Dune 8,2012



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 12/31/11) | Performance to Date (as of 12/31/11) | Steps Taken in 2011 | Steps Planned for 2012 -2014 | 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 the new vehicle procurement evaluation criteria. | Continue practice. | Started before 1995 | 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 the new vehicle procurement evaluation criteria. | Continue practice. | Started before 1995 | No End Date (Continuous) | | | |
| Perform regular fleet maintenance specifically to improve fuelefficiency | Ongoing/In Progress | % of vehicles are subject to 100 regular maintenance for fuel efficiency | Entire fleet is subject to weekly maintenance checks and scheduled maintenance based on vehicle mileage. | Continue practice. | Started before 1995 | No End Date (Continuous) | | | |
| Replace small maintenance vehicles with more fuel-efficient models | Ongoing/In Progress | | Fuel consumption is part of the new vehicle procurement evaluation criteria. | Continue practice. | Started before 1995 | No End Date (Continuous) | | | |
| Behavior 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 behavior + anti-idling signs have been posted at the Prince George campus. | Continue to promote practice. | 2009 | No End Date (Continuous) | | | |
| Encourage carpooling in fleet vehicles | Ongoing/In Progress | | Carpooling is encouraged. | Continue to promote practice. | 2009 | No End Date (Continuous) | | | |
| Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking) | Ongoing/In Progress | | Secure bicycle storage is available and use of public transit and walking are encouraged. | Maintain secure storage areas and promote alternate modes of transportation such as public transit, walking, etc. | Started before 1995 | No End Date (Continuous) | | | |
| Stationary Fuel Combustion, Electricity and Fugitive Em | issions (Buildings) | | | | | | | | |
| Planning/management | | | | | | | | | |
| Enroll in a building energy benchmarking program (e.g., GREEN UP) | Ongoing/In Progress | | New buildings are built to LEED Gold standards. | As funding permits CNC will continue to explore these kinds of programs. | 2005 | No End Date (Continuous) | | | |
| Reduce office space (square meters) per employee | Ongoing/In Progress | | New buildings and renovations are being designed with shared or reduced office space requirements. | Continue practice. | 2009 | No End Date (Continuous) | | | |
| Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls) | Ongoing/In Progress | | Brink building has real time metering. | Ongoing pending funding. | 2010 | No End Date (Continuous) | | | |
| Owned buildings | | | | | | | | | |
| Register for performance labeling/certification for operations and maintenance of owned buildings (e.g., LEED EB:O&M) | In Development | | | As funding permits. | 2011 | No End Date (Continuous) | | | |
| Register for performance labeling/certification for commercial interiors of owned buildings (e.g., LEED CI) | In Development | | | As funding permits. | 2011 | No End Date (Continuous) | | | |
| Achieve LEED NC Gold certification at a minimum for new construction or major renovations | Ongoing/In Progress | | All new buildings are constructed to LEED Gold standards. | Continue practice. | 2010 | No End Date (Continuous) | | | |

| Action | Status (as of 12/31/11) | Performance to Date (as of 12/31/11) | Steps Taken in 2011 | Steps Planned for 2012 -2014 | Start Year | End Year |
|--|----------------------------|---|--|---|------------------------|-----------------------------|
| Incorporate integrated design process into new construction or during renovations of owned buildings | Ongoing/In Progress | | All stakeholders are involved in new construction or renovations. | Continue practice. | Started before 1995 | No End Date (Continuous) |
| Perform energy retrofits on existing, owned buildings | Ongoing/In Progress | | Various energy reduction projects are under consideration and will be complete as funding permits. | Continue practice. | Started before 1995 | No End Date (Continuous) |
| Retrofitting owned buildings | | | | | | |
| Upgrade mechanical systems (heating, cooling, ventilation) during retrofits | Ongoing/In Progress | | New energy efficient RTU installed at Nicholson campus. Hot water tank at Student Residence replaced with energy efficient unit. New Medical Radiography program allowed for upgrade to an energy efficient RTU and other related equipment. | Upgrade central power plant and peripheral systems as funds permit. | Started before 1995 | No End Date (Continuous) |
| Upgrade lighting systems during retrofits | Ongoing/In Progress | | Upgrades from T12 fixtures and controls to T8 motion activated and varying switch control. | Continue upgrades in classrooms and common areas. | Started before 1995 | No End Date (Continuous) |
| Upgrade/adjust control systems during retrofits | Ongoing/In Progress | | Some upgrades throughout the year related to pump and fan controls. | Continue practice as funding permits. | Started before 1995 | No End Date (Continuous) |
| Improve building insulation (including windows) during retrofits | Ongoing/In Progress | | Ongoing. | Continue practice. | Started before 1995 | No End Date (Continuous) |
| IT power management | | | | | | |
| Install power management software which shuts down computers outside of regular business hours | Ongoing/In Progress | | Currently maintaining 2010 levels. | Continue practice. | 2009 | No End Date (Continuous) |
| Implement server virtualization | Ongoing/In Progress | | Regional server complete. | Consider virtualizing new physical servers. | 2009 | 2011 |
| Apply auto-sleep settings on computer monitors and CPUs | Ongoing/In Progress | | Default settings from computer as new units are introduced. | Continue practice. | 2009 | No End Date (Continuous) |
| Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices | Ongoing/In Progress | | Continually reviewed and devices removed as funding permits. | Continue practice. | 2009 | No End Date (Continuous) |
| Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices | Ongoing/In Progress | | Majority of equipment is set on to this feature. | Continue practice. | 2009 | No End Date (Continuous) |
| Replace computers with ENERGY STAR models during regular computer upgrades | Ongoing/In Progress | | Continued practice. | Continue practice. | 2009 | 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 | | New fridges for Student Residence rooms energy star models. | Continue practice. | Started before 1995 | No End Date (Continuous) |
| Replace other appliances or electronic devices with ENERGY STAR models or source ENERGY STAR models for future purchases | Ongoing/In Progress | | Other miscellaneous equipment are energy efficient units. | Continue practice. | Started before 1995 | No End Date (Continuous) |
| Behavior change program | | | | | | |
| Ask staff to unplug electrical equipment or switch off power bars when not in use | Ongoing/In Progress | | Periodic reminders to staff/students to reduce electricity by unplugging devices and switching off power bars. | Continue practice. | 2009 | No End Date (Continuous) |

| Action | Status (as of 12/31/11) | Performance to Date (as of 12/31/11) | Steps Taken in 2011 | Steps Planned for 2012 -2014 | Start Year | End Year |
|--|----------------------------|---|---|--|------------------------|-----------------------------|
| Ask staff to close blinds at end of work day to reduce heating/cooling demands | Ongoing/In Progress | | Periodic reminders to staff/students to close blinds at the end of the day. Selected rooms not in regular use during vacation/holiday periods are locked up and blinds are drawn. | Continue practice. | 2009 | No End Date (Continuous) |
| Provide tips to staff on saving energy in the office while working outside of regular business hours | Ongoing/In Progress | | Periodic suggestions/reminders to staff on how to reduce/save energy. | Continue practice. | 2009 | No End Date (Continuous) |
| Encourage use of stairs instead of elevators | In Development | | | Post signs encouraging staff and students to use stairs over elevators for health benefits and to reduce energy. | 2012 | No End Date (Continuous) |
| Provide reminders for turning off lights (e.g., signs, stickers, messages) | Ongoing/In Progress | | Various signs and posters throughout the institution promote this practice. | Continue practice. | 2009 | No End Date (Continuous) |
| Promote hot water conservation | Ongoing/In Progress | | Student Residence turned hot water supply off to washers and posted signs indicating that units will only work on cold water setting. | Explore other hot water conservation methods, ideas. | 2011 | No End Date (Continuous) |
| Supplies (Paper) | | | | | | |
| Paper Type | | | | | | |
| Purchase 30% post-consumer recycled paper | Ongoing/In Progress | | Continuing to develop paper purchasing strategy. | Evaluate supply options and product availability at end of current supply contract in 2013. | 2008 | No End Date (Continuous) |
| Purchase 40% post-consumer recycled paper | Ongoing/In Progress | | Continuing to develop paper purchasing strategy. | Evaluate supply options and product availability at end of current supply contract in 2013. | 2008 | No End Date (Continuous) |
| Purchase 100% post-consumer recycled paper | Ongoing/In Progress | | Continuing to develop paper purchasing strategy. | Evaluate supply options and product availability at end of current supply contract in 2013. | 2008 | No End Date (Continuous) |
| Printer/document settings | | | | | | |
| Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs | Completed in 2011 | | Print and hold' settings applied. | | 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 | | Evaluating software options. | Install selected software. | 2009 | No End Date (Continuous) |
| Post materials online that were previously printed | Ongoing/In Progress | | Continued practice. | Continue practice. | Started before 1995 | No End Date (Continuous) |
| Behavior change program | | | | | | |
| Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.) | In Development | | | Continue practice. | 2010 | No End Date (Continuous) |
| Encourage staff to hold paperless meetings or presentations (i.e., no handouts) | Ongoing/In Progress | | Continued practice. | Continue practice. | 2009 | No End Date (Continuous) |
| Encourage re-use of scrap paper | Ongoing/In Progress | | Continued practice. | Continue practice. | Started before 1995 | No End Date (Continuous) |

Actions to Reduce Provincial Emissions and Improve Sustainability

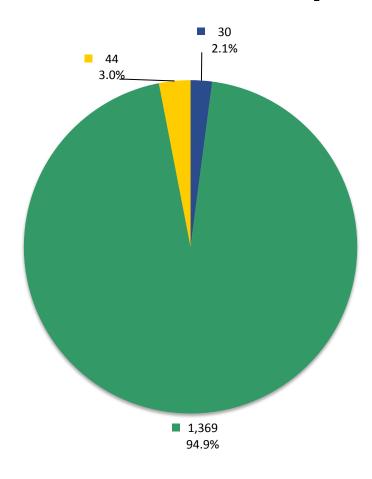
The actions listed below contribute to a reduction in greenhouse gas emissions from sources that fall outside of the report on actions that will help British Columbia meet its provincial greenhouse gas reduction targets, engage the public, and improve environmental sustainability across all aspects of their organization.

| Action | Status (as of 12/31/11) | Performance to Date (as of 12/31/11) | Steps Taken in 2011 | Steps Planned for 2012 -2014 | Start Year | End Year |
|--|----------------------------|---|--|--|------------------------|-----------------------------|
| Business Travel | | | | | | |
| Virtual meeting technology | | | | | | |
| Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.) | In Development | | | Software being evaluated. | 2011 | 2012 |
| Make desktop web-cameras available to staff | Ongoing/In Progress | | Continued practice. | Continue practice. | 2008 | No End Date (Continuous) |
| Install video-conferencing units in meeting rooms or provide mobile video-conferencing units | Ongoing/In Progress | | Continued practice. | Continue practice. | 2009 | No End Date (Continuous) |
| Behavior change program | | | | | | |
| Train staff in web-conferencing | Ongoing/In Progress | | Continued to train staff as required. | Continue practice. | 2008 | No End Date (Continuous) |
| Train staff in video-conferencing or provide technical support for video- conferencing set-up | Ongoing/In Progress | | Continued to train staff as required. | Continue practice. | 2009 | No End Date (Continuous) |
| Encourage staff to consider virtual attendance/presentation at events where possible | Ongoing/In Progress | | Continued to encourage staff to use this technology. | Continue practice. | 2009 | No End Date (Continuous) |
| Encourage carpooling to meetings | Ongoing/In Progress | | Encouraged practice. | Continue practice. | Started before 1995 | No End Date (Continuous) |
| Encourage alternative travel to meetings (e.g., bicycles, public transit, walking) | Ongoing/In Progress | | Encouraged practice. | Continue practice. | Started before 1995 | No End Date (Continuous) |
| Education, Awareness, and Engagement | | | | | | |
| Team-building | | | | | | |
| Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement | Ongoing/In Progress | | Student Residence Green Team formed. | Continue to promote enrollment and participation in teams. | 2009 | No End Date (Continuous) |
| Provide resources and/or dedicated staff to support teams | Ongoing/In Progress | | Continued with BC Hydro Energy Manager program; this individual provided support and direction to Green Teams. | Explore programs and resources for continued support. | 2009 | No End Date (Continuous) |
| Providing behavior change education/training to teams (e.g., community-based social marketing) | Ongoing/In Progress | | Information provided at open houses and other events. | Continue practice. | 2009 | No End Date (Continuous) |
| Staff Professional Development | | | | | | |
| Support green professional development (e.g., workshops, conferences, training) | Ongoing/In Progress | | Funds available for staff to attend workshops, conferences, and training. | Promote attendance at events. | 2009 | No End Date (Continuous) |
| Staff awareness/education | | | | | | |
| Provide education to staff about the science of climate change | Ongoing/In Progress | | Information has been provided through various forums (email, library displays, etc. | Continue practice. | 2009 | No End Date (Continuous) |

| Action | Status (as of 12/31/11) | Performance to Date (as of 12/31/11) | Steps Taken in 2011 | Steps Planned for 2012 -2014 | Start Year | End Year |
|---|----------------------------|---|--|--|------------|-----------------------------|
| Provide education to staff about the conservation of water, energy, and raw materials | Ongoing/In Progress | | Information has been provided through various forums (email, library displays, etc. | Continue practice. | 2009 | No End Date (Continuous) |
| Provide green tips on staff website or in newsletters | Ongoing/In Progress | | Information has been provided through various forums (email, library displays, etc. | Continue practice. | 2009 | No End Date (Continuous) |
| Provide sustainability education during new staff orientation | Ongoing/In Progress | | Information has been provided through various forums (email, library displays, etc. | Continue practice. | 2009 | No End Date (Continuous) |
| Client/public awareness/education | | | | | | |
| Provide education to clients/public about the science of climate change | Ongoing/In Progress | | Information has been provided through various forums (email, library displays, etc. | Continue practice. | 2009 | No End Date (Continuous) |
| Provide education to clients/public about the conservation of water, energy, and raw materials | Ongoing/In Progress | | Information has been provided through various forums (email, library displays, etc. | Continue practice. | 2009 | No End Date (Continuous) |
| Provide green tips on client/public website or in newsletters | Ongoing/In Progress | | Information has been provided through various forums (email, library displays, etc. | Continue practice. | 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 | Ongoing/In Progress | | Efficient models installed when units are replaced or renovations occur. | Continue practice. | 2005 | No End Date (Continuous) |
| Introduce a storm water management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales) | Ongoing/In Progress | | Vegetated roof and rain gardens introduced with PGTEC building. | Continue to explore various opportunities. | 2009 | 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 | Ongoing/In Progress | | Reviewing trash compaction containers to reduce truck pick up and hauling of garbage to landfill. | Place additional updated recycling containers throughout campus. | 2000 | No End Date (Continuous) |
| Implement a hazardous waste reduction and disposal strategy | Ongoing/In Progress | | Continued established practices - 'Bulb eater' for disposal of fluorescent lamps, paints and solvents to appropriate recycle centers, etc. | Continue practice. | 2010 | No End Date (Continuous) |
| Procurement (non-paper supplies) | | | | | | |
| 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 | | | Formal policy to be developed. | 2011 | No End Date (Continuous) |
| Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags | In Development | | | Reviewing green cleaning products for increased use in the facility. | 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 | | Low value items are taken to second hand stores for reuse and higher value items are taken to asset recovery for auction. | Continue practice. | 2005 | No End Date (Continuous) |
| Incorporate lifecycle costing into new construction or renovations | Ongoing/In Progress | | Continued practice. | Continue practice. | 2005 | No End Date (Continuous) |

| Action | Status (as of 12/31/11) | Performance to Date (as of 12/31/11) | Steps Taken in 2011 | Steps Planned for 2012 -2014 | Start Year | End Year |
|---|----------------------------|---|---|---|------------------------|-----------------------------|
| Indoor air quality | | | | | | |
| Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture | In Development | | | Develop policy. | 2011 | No End Date (Continuous) |
| Commuting to and from home | | | | | | |
| Encourage commuting by foot, bicycle, carpool or public transit | Ongoing/In Progress | | Practice encouraged through various forums. | Continue practice. | Started before 1995 | No End Date (Continuous) |
| Provide shower or locker facilities for staff/students who commute by foot or by bicycle | Ongoing/In Progress | | Facilities available for use. | Continue practice. | Started before 1995 | No End Date (Continuous) |
| Provide secure bicycle storage | Ongoing/In Progress | | Secure storage available. | Continue to provide and maintain storage. | Started before 1995 | No End Date (Continuous) |
| Modify parking fees or parking availability for staff/students | Ongoing/In Progress | | Fees and contract with service provider reviewed regularly. | Continue practice. | 2000 | No End Date (Continuous) |

College of New Caledonia Greenhouse Gas Emissions by Source for the 2011 Calendar Year (tCO₂e*)



Total Emissions: 1,442

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion (Building Heating and Generators) and Electricity
- Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2011 (Generated May 18, 2012 11:06 AM)

Total offsets required: 1,441. Total offset investment: \$36,025. Emissions which do not require offsets: 1 **

^{*}Tonnes of carbon dioxide equivalent (tCO₂e) 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.