

Carbon Neutral Action Report Northern Health Authority

Executive Summary

The Province of British Columbia has set into motion a comprehensive Climate Action Plan designed to reduce the emissions of greenhouse gasses and the 2007 Greenhouse Gas Reductions Targets Act (GGRTA) is the foundation of this plan. The GGRTA requires that B.C. reduce its total greenhouse gas emissions by at least 33 per cent below 2007 levels by 2020, and by at least 80 per cent below 2007 levels by 2050. In addition, the GGRTA requires that core government and broader public sector operations become carbon neutral beginning in the year 2010. Along with these reductions targets is the requirement that all public sector organizations report their actions and plans in reducing greenhouse gasses in an annual Carbon Neutral Action Report (CNAR). The information contained within this report identifies the Northern Health carbon reduction actions undertaken and planned, and fulfills the reporting requirements

Key actions undertaken in 2008 include important foundation-laying work, such as the establishment of a Sustainability position at the Regional Director level within Northern Health and the completion of a Sustainable Energy Management Plan. Active participation with our Health Authority counterparts around the province has resulted in common knowledge growth and information sharing in the area of energy, sustainability and carbon reduction.

Energy auditing at 30 of our energy intensive facilities was completed. Action on the recommendations contained within those audits commenced in 2008 and will continue through 2009/2010. Thorough utility use tracking was initiated at all 89 facilities owned by Northern Health.

Northern Health issued a design call for its first LEED Gold facility in 2008 for the new Fort St John Hospital and Residential Care complex

Objectives

Committed to providing health and well-being support to our communities, and in accordance with our Mission and Values Statements, Northern Health endeavours to reduce its environmental impact on our communities and northern BC as a whole. Our Mission and Values Statements read, in part: "Northern Health works with communities and organizations to support Northern people to live well and prevent injury and illness", and "Stewardship: showing transparent, responsible and effective use of resources". Through ongoing efforts to reduce carbon and other greenhouse gas emissions, we will positively impact the health of those living within our communities and we will minimize the consumption of our natural resources. With the public release of this Carbon Neutral Action Report we affirm our commitment to transparency.

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

Overview

2008 saw the establishment of a corporate-wide effort to tackle the environmental impacts resulting from Green House Gas emissions, in particular carbon emissions. This effort included auditing of facilities to identify areas energy-use reduction and the commencement of actions resulting from the recommendation of those audits. 2008 was a foundational year where important base-line work was done to establish a solid grounding for ongoing reduction efforts into the future. Energy reduction work was initiated, and some completed on multiple fronts. These include both physical work at sites and human and behavioural initiatives.

1.1 Mobile Fuel Combustion

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Established anti-idling behaviour change program (e.g. signs, stickers, messages)	Complete	implemented an idle-free zone policy at entrances to Prince George Regional Hospital	
Encouraged use of public transit/active transportation	Complete	Northern Health employees are encouraged to make use of the Northern Health Connections inter-city bus services between Northern Health facilities where travel to sites is required for work purposes and where space is not required for patients and their support	use of Northern Health patient inter-city bus system by staff reduces use of personal vehicles traveling to the same sites
Facility Space Review	in-progress	initiated review of multiple spaces within Prince George with the intent of combining several into one facility	locating more departments under "one roof" will reduce commuting between sites within Prince George
Dedicated courier service	complete	Northern Health employees a courier to deliver materials to the various sites within Prince George on a daily basis. This reduces GHGs by eliminating repeated trips between sites by individual employees	
Purchase of bio-fuels	complete	In 2008 the Northern Health Fleet purchased 33,125 litres of methanol blended gasoline (about 10% of our gasoline purchases)	

1.2 Stationary fuel combustion and electricity

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Replaced # computers with EnergyStar models	In Progress	Energy star purchase of network and printshop printers	
Encouraged staff to use stairs	Complete	participated in the "take the stairs" program	in addition to encouraging fitness, results in reduced elevator usage corresponding to energy reduction
Installed multi-function devices (and removed stand-alone printers/faxes)	complete	Northern Health policy has a no personal printers policy. Network printers are provided as multi-function devices	
Installed motion activated lights	complete	installed occupancy sensors in administrative offices in Prince George to control office lighting	
Utilized desk-top power management settings on computer	In progress	Reduce electrical consumption. BC Hydro indicates an estimate of annual Northern HealthA electrical savings to be 732 kWh- 207 kWh = 525 kWh/yr.	Implement desktop power management software to ensure that workstations are turned off when not in use. The software captures a baseline of energy consumption prior to enforcing a shutdown policy so savings can be estimated.
Applied for LEED existing building rating	In Progress	LEED NC (New Construction) - Project agreement requirements prepared for new Fort St John Hospital and the North Peace Residential care facility specified that the facility be constructed to meet LEED Gold standards and, specifically, that 4 LEED points be achieved thru energy efficient building systems	RFP issued in 2008, P3 award anticipated in 2009, building completion in 2012

Undertaken building energy audit at LOCATION(s)	In progress	Completed audits at 29 of the largest facilities, allowing better understanding of energy use and opportunities for retrofit.	Savings identified at each of the 29 facilities: Dawson Creek District Hospital, Prince George Regional hospital, GR Baker Memorial hospital, Alward Place, St John Hospital, Bulkley Valley Hospital, Bulkley Valley Lodge, Houston Health Centre, Lakes District Hospital, Fraser Lake D&T, Mills Memorial Hospital, Kitimat Hospital, Prince Rupert Regional Hospital, Stuart Nechako Manor, Chetwynd hospital, Fort Nelson Hospital, Fort St John Hospital, Hudson Hope Health Centre, Mackenzie Hospital, McBride District Hospital, Baker Lodge, Dunrovin Lodge, Fraser Lake Health Centre, Jubilee Lodge, Lakes District Home Support facility, Parkside Intermediate Care Home, Rainbow Care Home, The Pines Care Home, Rotary Manor, Tumbler Ridge Health Centre
Submitted Public Sector Energy Conservation Agreement funding applications Phase 2	In progress	If approved, these projects will achieve energy and operating dollar savings.	Submitted for 16 sites for both Provincial Government and BC Hydro funding.
Server Virtualization	In progress	Anticipated annualized energy savings in the amount of 150,000kWh due to a reduction in the number of physical servers.	Server virtualization- phase 2.
Developing Energy Management Plan	Complete	Action plan will guide energy retrofit focus in the coming years.	Working with BC Hydro/PowerSmart Partner Program to develop plans for all facilities. Work includes signing a PowerSmart commitment with BC Hydro and conducting an Energy Management Assessment of Northern Health facilities.
Installed and commissioned Building Automation System	Complete	Installed Building Automation System in Fort Nelson Hospital for more efficient operation of building equipment	
Obtained Funding grants and BC Hydro Incentive for Public Sector Conservation Agreement Funding Phase 1	In progress	Funding approved for 13 Northern Health facilities for energy reduction improvements to lighting, Building Automation Systems, Boilers and others	Implementation of recommendation moving forward in 2009

1.3 Supplies

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Initiated automatic double sided printing	Completed	Reduce paper usage by 25-40%	Corporate network printers defaulted to double sided printing.
Developed document library (online and one printed copy) for large documents	completed	Implemented "Iportal", an intranet site hosting Northern Health policy and procedure manuals, standard employee forms, employee bulletin board, etc;	
Restructured a process to use less paper	In progress	implemented electronic medical records to reduce paperwork. Includes lab and other test results. Information is linked directly to physician offices, clinics and hospitals, eliminating the need for paper copies to be sent	implementation to additional Northern Health sites will continue thru 2009 and 2010

Actions on non-paper related supplies:			
Purchased cradle to cradle goods	ongoing	participating in the Xerox toner recycling program. Multi-function copy machine toners are sent back to Xerox for toner recovery and recycling	

1.4 Travel

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Installed Video Conferencing facilities	In Progress	Reduce the need for travel, resulting in lower green house gas emission output. In 2008 5473 sites participated in 1,410 video conferences. Video conferences were roughly equally used for clinical assessments, education, and administrative meetings	Employees at Northern Health are encouraged to take advantage of teleconference and video conference technology whenever practicable. VC capabilities will be expanded to all remaining Northern Health communities in 2009 (except Atlin, Dease Lake and remote Nursing Stations where the sufficient network infrastructure (beyond Northern Health) does not yet exist)
Initiated Travel Policy	complete	Upper level management required to approve travel requests to ensure travel is essential to meeting the objectives of the attendee	
Encouragement of alternate meeting methods by senior executive / management	complete	reduced travel and increased use of alternate means such as video conferencing	discussions at the executive level and circulation of correspondence urging staff to consider alternate means of meeting attendance (or declining to attend) to reduce travel

1.5 Employee Engagement

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Health Sector Climate Action Leads Committee	In progress	Participate in the Health Sector Climate Action Leads committee.	On going quarterly meetings.
Provincial Energy Technical Teams Committee	In progress	Participate in Provincial Energy Technical Teams committee.	On going monthly meetings.
BC Hydro PowerSmart Partner	Complete	Committed to continuing participation in the BC Hydro PowerSmart Partner Program	

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	complete	installed Low flow toilets in all HCC 5000 bed initiative	All new projects specify low flow toilet fixtures
Reduced/replaced bottled water with filtered or refrigerated water	complete	Bottled water / water coolers eliminated.	tap water in Northern BC has little/no chlorination and is suitable for drinking
Improved recycling measures	ongoing	Recycling of paper at corporate offices and Prince George Regional Hospital	Confidential paper at corporate offices is shredded and recycled.
Support Staff choosing to use fuel efficient modes of travel	Complete	Designated Motorcycle parking at Prince George Regional Hospital	Encourages staff to use more fuel efficient vehicles

Install bicycle storage facilities at Prince George Regional Hospital (Prince George Regional Hospital)	Complete	Increased active transportation -- with associated health and wellness benefits.	The previous employee smoking enclosure was converted to a bicycle storage space to encourage employees to ride bicycles to work by providing a secure and weather protected enclose.
Implemented paid parking for staff and visitor parking at Prince George Regional Hospital and at Northern Health Corporate Offices	Complete	Reduced number of paid parking passes should result in active transportation and related reduction of GHGs from motor vehicles.	
Northern Health Connections program provides a mass transit option for patients who need to travel to hospitals outside of their own community	Complete	The program has continued to gain acceptance and use since the initial inception in 2006. Ridership is increasing on a monthly basis and in November 2008 a milestone of 1000 riders per month was attained	The Connections programs provides scheduled bus transportation between Northern Health sites, as well as into Vancouver and Alberta. Patients are traveling in a more environmentally friendly manner and avoiding putting additional vehicles on the road. Staff may use the service when there are seats not booked by patients
Wellness team promotes fitness and walking	ongoing	The Northern Health Wellness team supports fitness activities such as Take the Stairs programs, nature hikes, pedometer program, etc. Other programs included bicycle safety and maintenance seminars and motorcycle safety seminars	fitness programs encourage reduced reliance on elevators and support the use of self-propelled and/or low-consumption transportation

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

Overview: In an ongoing effort to work toward the greenhouse gas emissions targets set by the Provincial Government, and to support the goals described at the beginning of this report, Northern Health is proposing the initiatives described below for the coming year 2009

2.1 Stationary Fuel Combustion (including electricity)

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Replace standard bulbs with CFLs	planned	as part of the Energy retrofit contracts to be issued in 2009, any existing incandescent bulbs existing in the target facilities will be changed to CFL (Compact Fluorescent Lights)	2009 sites scheduled for CFL install are: Bulkley Valley Lodge, Dawson Creek Hospital, GR Baker Hospital, Prince George Regional Hospital, Prince Rupert Regional Hospital, St Johns Hospital,	2009/2010
Install motion activated lights	planned	as part of the Energy retrofit contracts to be issued in 2009, motion activated lights are included in the work	2009 sites scheduled for Occupancy sensor install are: GR Baker Hospital, Prince George Regional Hospital, St Johns Hospital, Stuart Nechako Manor	2009/2010

Undertake lighting retrofit	planned	Energy efficient lighting retrofit to occur at 13 Northern Health facilities. Over 20,000 fluorescent bulbs are anticipated to be replaced with more energy efficient bulbs for an estimated annual saving of more than 600,000 kwh	2009 sites scheduled for energy efficient lighting install are: Bulkley Valley Hospital, Bulkley Valley Lodge, Dawson Creek Hospital, Fraser lake HC, GR Baker Hospital, Houston HC, Kitimat GH, Mills Memorial Hospital, Prince George Regional Hospital, Prince Rupert Regional Hospital, St Johns Hospital, Stuart Nechako Manor	2009/2010
Initiate or complete a building energy retrofit	In progress	Review to Public Sector Energy Conservation Agreement items below		
Lessors required to report utilities usage	In progress	Leasing contract negotiations to include requirement for owner/agent to track and report utilities usage on leased space.	Allows Northern Health to track energy use and identify areas for improvement.	2009/2010
SmartTool Launch	planned	Tracking software will identify extent of emissions at each of the Northern Health facilities	Northern Health will work with MLCS to implement the SmartTool GHG emissions tracking software	2009
Public Sector Energy Conservation Agreement III Application	planned	Will be participating in the Public Sector Energy Conservation Agreement III application for energy reduction funding, when announced		2009
Public Sector Energy Conservation Agreement II Implementation	planned	pending approval of all Public Sector Energy Conservation Agreement II funding applications, implement energy reduction initiatives at the sites covered under these applications		2009/2010
Public Sector Energy Conservation Agreement I	planned	in addition to the lighting projects identified, install Building Automation Systems, boiler upgrades, motor controls and vfd's to improve energy efficiency at the 29 sites covered under Public Sector Energy Conservation Agreement I	Savings identified at each of the 29 facilities: Dawson Creek District Hospital, Prince George Regional hospital, GR Baker Memorial hospital, Alward Place, St John Hospital, Bulkley Valley Hospital, Bulkley Valley Lodge, Houston Health Centre, Lakes District Hospital, Fraser Lake D&T, Mills Memorial Hospital, Kitimat Hospital, Prince Rupert Regional Hospital, Stuart Nechako Manor, Chetwynd hospital, Fort Nelson Hospital, Fort St John Hospital, Hudson Hope Health Centre, Mackenzie Hospital, McBride District Hospital, Baker Lodge, Dunrovin Lodge, Fraser Lake Health Centre, Jubilee Lodge, Lakes District Home Support facility, Parkside Intermediate Care Home, Rainbow Care Home, The Pines Care Home, Rotary Manor, Tumbler Ridge Health Centre	2009/2010

2.2. Supplies:

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Commit to use 30% recycled paper	In Progress	increase the amount of 30% recycled paper content stationary, particularly coloured papers		2009
Initiate automatic double sided printing	planned	investigate possibility of implementing double-sided printing across the Authority		
On-line internal Job postings and applications	in progress	reduction of paper for both postings and applications	currently in pilot phase	2009

2.3 Travel

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Set a 2.4% Travel reduction goal	planned	Reduced GHG emissions		2009
Install Video Conferencing facilities	in progress	All remaining sites in communities possessing sufficient internet connectivity were connected to the Northern Health video conference network	42 sites in 26 communities are on the Northern Health video conference network	2009
PC to PC Conferencing	planned	The use of personal computer to personal computer meeting software, such as Net Meeting, GOTO Meeting, or similar, is anticipated to reduce the need for in-person meetings and thereby reduce travel.	this software allows the sharing of presentations, spreadsheets and other applications directly to the computers of meeting attendees without the need for expensive video equipment or meeting rooms, thereby making remote conferencing accessible to more employees at any given time.	
Eliminate participant redundancy at conferences, seminars, meetings and on committees requiring travel	in progress	reduced travel	review the benefit vs. impact have attending distant meetings or having more than one attendee at the same meeting, committee, conference etc. Reduce multiple travel as appropriate	

2.4 Employee Engagement

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Build walkways and bikeways linking to community trails	In progress	By providing well connected links to community trails, employees will have improved walking and bicycling access to the hospital and a more pleasant environment during travel.	Specification of on-site walkways and bikeways in the new Ft. St. John Hospital and Residential care complex.	
Create new position -- Regional Director of Engineering and Environmental Sustainability	In progress	Focused attention on energy and asset management will lead to improved energy performance and carbon reduction.	Northern Health has established a new staff position responsible for energy reduction and sustainability.	
Establish a sustainability council	In progress		Sustainability council will be led by corporate, and consist of plant and property managers and others (support services, purchasing, etc) from supported sites to identify savings opportunities and actions throughout the Authority.	

2.5. Sustainability Actions (others)

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Improve recycling measures	in progress	Over 20,000 fluorescent bulbs are anticipated to be replaced and sent for recycling Investigate possibilities for additional recycling efforts across the region	As part of the Lighting energy retrofit program, installation contractors are contractually obligated to send the old fluorescent bulbs to a recycling centre Limited recycling facilities are currently available in the north due to costs associated with transportation distances and economies of scale	
Plan district heating, co-generation, bio energy production, etc	In progress		Northern Health will continue to seek out opportunities to work with private partners, municipalities and other SUCH sector members in exploring opportunities in green technologies, such as District Heating, Co-generation, bio-energy production, etc.	2009-
Build bike storage	In progress		Include bicycle storage in the specification for the new Ft. St. John hospital and residential care complex project. The existing facilities do not have designated bicycle storage designation.	2011
Light bulb recycling	proposed	Over 20,000 fluorescent bulbs are anticipated to be replaced and sent for recycling	As part of the Lighting energy retrofit program, installation contractors are contractually obligated to send the old fluorescent bulbs to a recycling centre	2009
Additional Actions taken or planned				
	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Facility Space Review	in-progress	initiated review of multiple spaces within Prince George with the intent of combining several into one facility	locating more departments under "one roof" will make use of common heating and will reduce carbon emissions through the elimination of reliance on multiple heating systems	