

**Carbon Neutral Action Report
Ministry of Education**

Executive Summary

Through 2008, the Ministry of Education took a leading role in reducing greenhouse gas emissions and implementing sustainable operations. Building improvements including motion sensors and low flow fixtures have made our buildings more sustainable and implementing MFDs has reduced our electricity use. This, in combination with staff engagement, has started to shift the culture at our Ministry to include the environment.

Objectives

Virtually all children in B.C. will pass through a school in their lifetime and childhood is one of the best times to change attitudes and behaviours related to the environment. As schools account for 50 percent of the overall public sector infrastructure footprint, it is very important for school districts to make their operations more sustainable for the province to achieve its overall emissions reductions targets.

All Boards of Education have signed on to the Climate Action Charter, which affirms their legal responsibility to be carbon neutral beginning in 2010, and which acknowledges that Boards have an important role in promoting educational programming on climate change and sustainability.

The Ministry has worked closely with school districts as they continue to reduce their greenhouse gas emissions and promote sustainability. In an effort to solidify these relationships, the Ministry is currently establishing a Sustainability Advisory Committee with representatives from various partners in the education system that will work collaboratively toward achieving sustainability and climate action goals.

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

Overview

There were two main areas we focussed on in 2008: building retrofits and staff engagement. By completing the BOMA Go Green certification process, it identified opportunities to make changes and ensure our buildings are operating in a more sustainable manner such as installing motion sensors and low-flow washroom fixtures.

In addition, changes were made to our appliances within the building to reduce electricity including replacing refrigerators with EnergyStar appliances, changing to MFDs, and setting our computers into standby mode each night.

Another focus was on staff engagement and enabling staff to make changes to reduce emissions. This ranges from encouraging changes in day-to-day unit operations to reduce paper consumption to installing secure bike storage facilities and lockers to reduce commuting emissions. As well, learning opportunities were offered to educate staff on why changes need to take place to reduce greenhouse gas emissions.

1.1 Stationary fuel combustion and electricity

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Encouraged staff to use stairs	Complete	Signage next to elevators	
Turned off lights in unused rooms	In progress	Motion sensors installed in all washrooms and some boardrooms. All boardrooms have "turn it off" signage	
Replaced Refrigerators (EnergyStar rated appliance)	In progress	Approximately 4 replaced in 2008	EnergyStar is standard when replacing refrigerators
Replaced other appliances (with EnergyStar rated appliance)	In progress	EnergyStar is standard when possible	
Installed multi-function devices (and removed stand-alone printers/faxes)	Complete	36 MFD's installed across EDUC and ALMD Removed 176 other devices (108 printers, 18 scanners, and 50 copiers and faxes)	Standard is now to install MFDs in all new offices
Installed motion activated lights	In progress	Installed motion sensors in all washrooms and some boardrooms = 35 installed	
Undertaken lighting retrofit	In progress	Working through suggestions from energy audit	
Utilized desk-top power management settings on computer	Complete	As part of wider government initiative	
Initiated corporate computer shut-down/wake-up for maintenance	Complete	As part of wider government initiative	
Undertaken building energy audit at LOCATION(s)	Complete	ARES completed an in-depth energy audit as part of Building Owners and Managers Association Go Green certification	
Initiated or completed a building energy retrofit	In progress	Working through suggestions from energy audit	
BOMA Go Green certification	Complete	620 Superior passed with 70%	

1.2 Supplies

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Committed to use 100% recycled paper	In progress	Central purchasing switched to 100% recycled	One person orders paper for the majority of EDUC
Initiated automatic double sided printing	Complete	All MFDs set to default double-sided	
Used collaborative software to edit on-line	In progress	Through Elluminate, SharePoint, Wikis	
Restructured a process to use less paper	Complete	Numerous examples of units changing to paperless practices	e.g. Only printed 15% of usual copy run for Manual of School Law; Student records collection online
Actions on non-paper related supplies:			
Encouraged re-use of furniture and equipment	In progress	All office furniture purchased by facilities is of high quality and easily transformed to fit space requirements	
Installed wireless internet	Complete	620 Superior and 835 Humboldt now have wireless internet available.	Allows staff and visitors to easily use laptops for meetings
Print-less signature line	Complete	Encourage staff to "think before you print" through signature addition	

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1.3 Travel			
Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Set a X% Travel reduction goal	In progress	Established executive support for travel reduction goal	
Trained staff in the use of Live Meeting (or other desktop collaborative software)	In progress	Ongoing training on Elluminate	Elluminate is used in many divisions for communication with school districts and working groups
Supported alternative travel (bike/skateboard/walk/transit) for meetings	In progress	Staff encouraged to walk or take transit.	
Use of existing video conferencing facilities	Complete	Staff are encouraged to make use of existing facilities	
1.4 Employee Engagement			
Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Provided climate change education	Complete	Lunch and learns on various environmental topics such as bike safety, energy conservation. Green lead spoke at division meetings	
Provided conservation education	Complete	Lunch and learns on various environmental topics such as bike safety, energy conservation. Green lead spoke at division meetings	
Held contests/support to generate ideas	Complete	Request for ideas through Green Team intranet site	
Developed Green Teams	Complete	30 staff members on green team	
Supported Green Teams (resources)	Complete		Through Facilities & Support Services Sustainability Program Manager hired to run ministry green programs
Provided green tips	In progress	Monthly green tips provided to staff	Tips have included Catering; Green meetings; Reducing paper use; Saving lighting energy; Greening holidays; Employee travel; Waste reduction
Added green work goal to performance management	In progress	Established SHR support for incorporating "green" into EPDP	
Developed "green" intranet site	Complete	Updated regularly with tips, events, suggestions	http://www.bcedintra.gov.bc.ca/committees/green/welcome.htm

1.5 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	All plumbing fixtures (toilets, faucets, etc.) throughout main buildings changed to low-flow	
Reduced/replaced bottled water with filtered or refrigerated water	In progress	Filtered water in place, bottled water being removed	
Improved recycling measures	Complete	Enhanced waste diversion at main buildings with improved bins and signage	Multis; soft plastics; compost
Supported composting	Complete	Organics collection in place at all large offices	Including paper towel collection in washrooms
Used re-usable dishes	Complete	Dishes/cutlery/glasses etc. available in main large boardroom at 620 Superior	Used for over 5 meetings in 2008
Purchased green cleaning products	Complete	As part of Bee Clean contract	
Used green (low-e paints)	In progress	All upgrades use low-VOC materials	
Supported sustainable procurement practices	In progress	Part of Procurement Policy on Climate Change Working Group	
Adopted low-carbon contracting practices	In progress	Part of Procurement Policy on Climate Change Working Group	
Installed lockers and improved shower facilities	Complete	Larger lockers installed and additional shower facilities at 835 Humboldt	Still investigating shower options for 620 Superior
Upgraded paper towel dispensers	Complete	Installed new paper towel dispensers with single-sheet dispensers to reduce waste. New paper towels are 100% recycled fibres	
Battery recycling	In progress	Working with AIR to establish program	
Building location	In progress	New buildings are chosen with proximity to transit and other EDUC buildings in mind	

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

Overview	<p>Our main focus to reduce emissions over 2009 will be reducing business travel. By educating staff on travel alternatives such as Live Meeting, we endeavour to maintain a high level of service while reducing travel.</p> <p>Staff engagement activities such as Bike to Work Week, the Commuter Challenge/GreenRide Thursdays, and Earth Day events will continue to be a mainstay in our programs.</p> <p>In addition, ensuring our buildings are operating as designed (i.e. lights turning off at night) and investigating options for retrofits in the future will be accomplished in 2009.</p>
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2.1 Mobile Fuel Combustion				
Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Provide driver training to reduce fuel use	Planned	Educate DM on green driving methods	DM has only fleet vehicle	Summer 2009
Maintain zero fleet	Planned		Only fleet vehicle is DM's car which is not available to staff	2009-2010
2.2 Stationary Fuel Combustion (including electricity)				
Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Undertake workstation tune-ups to help staff understand what they can do to reduce personal energy use	Planned	% of staff completed online training	Training through Where green ideas work site	April-May 2009
Supply power bars – to turn off power to non-essential items when not in use (e.g. phone chargers)	Planned	As requested through workstation tune-ups		2009-2010
Undertaken Monitor turn-off challenge	Planned	% of staff turning off monitors overnight	Develop baseline before WSTU tool fully launched	Jun-09
Replace # computers with EnergyStar models	In progress		As part of workstation refresh	May-Sept 2009
Ask staff to close blinds daily	Planned	% of blinds closed overnight	Training part of WSTU	April-May 2009
Encourage staff to use stairs	In progress		Signage beside stairs Education using green tips on elevator energy use	2009-2010
Turn off lights in unused rooms	In progress	Posters in boardrooms above light switches Motion sensors installed in all bathrooms and some boardrooms		2009-2010
Replace Refrigerators (EnergyStar rated appliance)	In progress	Number of refrigerators replaced	EnergyStar is standard when replacing refrigerators (approx. 4 replaced in 2008)	2009-2010
Replace other appliances (with EnergyStar rated appliance)	In progress	Number of other appliances replaced with EnergyStar versions	EnergyStar is standard when possible	2009-2010
Install multi-function devices (and remove stand-alone printers/faxes)	In progress	Majority of stand-alone printers/faxes were removed in 2008 Standard is now to install MFDs in any new office		2009-2010
Replace standard bulbs with CFLs	In progress		As requested	2009-2010
Install motion activated lights	In progress	Complete installation of motion sensors in all boardrooms		2010
Undertake lighting retrofit	Planned		Building on recommendations from energy audit, working with LCS on options	2009

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Utilize desk-top power management settings on computer	Planned	As part of workstation refresh	May-Sept 2009
Unplug unused equipment	Planned	Through education contained in WSTU	April-May 2009
Initiate or complete a building energy retrofit	Planned	Building on recommendations from energy audit, working with LCS on options	2009
Utilize day lighting where possible	Planned	Increase daylight in office areas where possible to reduce need for fluorescents	2010

2.3 Supplies

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Commit to use 100% recycled paper	In progress	% of 100% recycled paper used	One person orders paper for the majority of EDUC Central purchasing switched to 100% recycled	2009
Initiate automatic double sided printing	In progress	All new MFDs/printers are set to default double-sided		2009
Change document template margins	Planned	Number of templates changed	Work needed to identify templates able to change	2010
Use collaborative software to edit on-line	Planned	Number of staff trained on collaborative software	As part of new collaboration tools in refresh	2009
Re-use non-confidential scrap paper				
Use laptops/tablets	Planned	Number of staff changing from desktop to laptop/tablet in refresh		May-Sept 2009
Restructure a process to use less paper	In progress		Processes changing all the time to reduce paper	
Actions on non-paper related supplies:				
Choose "Green" items from Distribution Centre	In progress	Number of staff attending lunch and learns held on green DCV products		Jun-09
Encourage re-use of furniture and equipment	In progress		All office furniture purchased by facilities is of high quality and easily transformed to fit space requirements	2009-2010
Pooled laptops	Planned		As part of refresh, a pool of laptops will be available for use which will reduce paper requirements for meetings	May-Sept 2009

2.4 Travel

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Set a X% Travel reduction goal	In progress	10% reduction target each year		2009-2010
Train staff in the use of Live Meeting (or other desktop collaborative software)	Planned	% of staff provided training Increase levels of staff using LiveMeeting or Elluminate		Training Oct 2009
Support alternative travel (bike/skateboard/walk/transit) for meetings	Planned	Use of transit passes	Provide transit passes for inter-Victoria travel	2010
Utilize existing videoconferencing facilities	Planned	# of videoconferences hosted in room 208 Upgrade videoconferencing instructions		2009
Develop taxi use baseline	Planned	Track and reduce number of inter-Victoria taxi trips		2009

2.5 Employee Engagement				
Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Provide climate change education	Planned	Number of lunch and learns offered Number of staff attending lunch and learns Number of staff attending 2009 version of Climate Action 101 and 102	Feedback will be collected from lunch and learn attendees	2009
Provide conservation education	Planned	Number of lunch and learns offered Number of staff attending lunch and learns	30 people attended first lunch & learn of 2009 on home energy retrofit grants Feedback will be collected from lunch and learn attendees	2009
Hold contests to change behaviour/make pledge	Planned	GreenRide Thursdays under development for ministry		2010
Hold contests/support to generate ideas	Planned	% of staff who participated in commuter challenge	Commuter challenge/GreenRide Thursdays	2009
Support Green Teams (resources)	In progress		Through Facilities and Support Services	
Provide green tips	In progress	Monthly green tips provided to staff	Tips so far in 2009 - Electronics recycling and Earth Hour	
Add a green work goal to performance management	Planned	Number of staff with green goals in EPDPs	Working with SHR to develop	2010
Reduce SOV employee commuting	Planned	% of staff participating in cross-government commuter challenge to educate staff on alternatives and garner commitment	Baseline on employee commuting habits must be developed first	2009
Bike to Work Week participation	Planned	% of staff participating in Bike to Work Week		May-09
2.6 Sustainability Actions (others)				
Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Improve recycling measures	Planned	Implement Styrofoam recycling in main buildings		2010
Support composting	In progress	Landfill diversion rates	Organics collection signage upgraded at 620 Superior Organics collection initialized at 777 Broughton in March, 2009	2009
Use green (low-e paints)	In progress	All upgrades use low-VOC materials	All upgrades use low-VOC materials	2009-2010
Support sustainable procurement practices	In progress		Part of Procurement Policy on Climate Change Working Group	2009
Adopt low-carbon contracting practices	In progress		Part of Procurement Policy on Climate Change Working Group	2009
Air quality monitoring	In progress	As part of ongoing staff environment monitoring		2009