

Carbon Neutral Action Report School District No. 27 (Cariboo-Chilcotin)

Executive Summary

School District No. 27 faces many challenges in achieving the goal of becoming carbon neutral; our geographic area (we are the size of Nova Scotia), northern climate, and declining enrolment are a few examples. The district formed a senior management team to lead the charge toward being carbon neutral in the coming years. In addition to the training of an in house Energy Manager the School District has partnered with BC Hydro in order to reduce consumption of electrical energy and Terasen Gas to reduce natural gas consumption.

The District is also in the process of investigating bio-energy as a viable energy alternative to natural gas. Bio-energy reduces the carbon footprint while being financially responsible. A bio-energy project would also support the local economy as we have a large scale producer of a bio-energy fuel source within the community.

Objectives

In addition to becoming carbon neutral the school district has partnered with local community leaders and joined the Cariboo Chilcotin educators to expand the use of technology (as opposed to paper/texts/printing) to teach lessons.

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

1.1. Mobile Fuel Combustion:

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Replaced # of TYPE OF VEHICLE with MORE EFFICIENT VEHICLE/Hybrid	In Progress		Replaced older vehicles with newer cleaner combustion more fuel efficient models
Initiated new fleet maintenance program (could include – changing filters, checking tire pressure, regular check-ups)	Complete		Transportation department has a maintenance program in place to ensure fleet is operating at an efficient level. This is an ongoing carbon reduction that continued in the 2008 year.
Established anti-idling behaviour change program (e.g. signs, stickers, messages)	In Progress		Posted anti-idling signs throughout the district to reduce carbon consumption during unnecessary times.
Encouraged car pooling in fleet vehicles	In Progress		All staff are encouraged to car pool in fleet vehicles whenever possible.
Other: (Please enter any items not included in the above list)			

Reduce travel by utilizing WEB meeting software	In Progress	District is utilizing I-chat, Elluminate Live, Windows Live and Polycom software programs to reduce travel
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1.2. Stationary fuel combustion and electricity:

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Supplied power bars – to turn off power to non-essential items when not in use (e.g. phone chargers)	In progress		
Undertaken Monitor turn-off challenge	Complete		All monitors are set to turn off after a length of time
Replaced # computers with EnergyStar models	In progress		Replaced 346 computer workstations with energy star models in 2008/09
Turned off lights in unused rooms	In progress		Encourage staff to turn lights off when leaving rooms. Provided some facilities with signs encouraging energy efficiency when leaving rooms.
Replaced Refrigerators (EnergyStar rated appliance)	In progress		Replaced five refrigerators with EnergyStar models.
Replaced other appliances (with EnergyStar rated appliance)	In progress		Replacing other appliances with models with EnergyStar rating (washing machines, dryers, etc).
Installed multi-function devices (and removed stand-alone printers/faxes)	In progress		We continue to reduce our number of stand alone printers/faxes with the purchase and installation of multi-function devices.
Replaced standard bulbs with CFLs	In progress		Working in conjunction with BC Hydro's Product Incentive Program to replace all standard light bulbs with compact fluorescent lamps
Installed motion activated lights	In progress		Opportunities where motion sensitive lights applicable are constantly being identified and retrofitted (including outside lighting and offices)
Undertaken lighting retrofit	In progress		1/2 of the school district buildings have had lighting retrofits in the past five years. Working on retrofitting remaining buildings.
Implemented server virtualization	In progress		46 servers have undergone server virtualization since 2007.

Utilized desk-top power management settings on computer	Complete	IT department ensures that the pre-installed power management software is operating properly.
Initiated corporate computer shut-down/wake-up for maintenance	In progress	Where possible, remote wakeup and shut down occurs.
Unplugged unused equipment	In progress	Working to promote a culture where unused equipment is unplugged.
Undertaken building energy audit at LOCATION(s)	In progress	
Initiated or completed a building energy retrofit	In progress	A retrofit of the School Districts largest consumer of natural gas was completed in 2008. Retrofit included a new high efficiency gas boilers system in conjunction with high efficiency pump including Variable Frequency drives.

1.3. Supplies:

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Initiated automatic double sided printing	In progress		Staff are encouraged to utilize double sided printing where machines have the capability.
Developed document library (online and one printed copy) for large documents	In progress		Currently using programs such as SharePoint on the district servers to share documents online to prevent excessive printing. SharePoint is also used as a central library for blogs, documents and forms. Groove will be installed in the near future.
Used collaborative software to edit on-line	In progress		Use of a common folder within the administration office and SharePoint software
Re-used non-confidential scrap paper	In progress		
Used laptops/tablets	In progress		District IT department purchases used and/or reconditioned equipment which includes computers and laptops, to reduce costs and in sending units to recycling and landfills.
Restructured a process to use less paper	In progress		Teachers are encouraged to use laptops and projectors for teaching classes

Actions on non-paper related supplies:		
Encouraged re-use of furniture and equipment	In progress	District has a central warehouse where unused desks, chairs and other furniture can be stored and redistributed as needed.

1.4. Employee Engagement

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Developed Green Teams	In progress		Formed a Climate Action Committee workgroup at senior management level to guide and direct future climate change action. This group will guide the district toward Carbon Neutrality and legislated targets.
Supported professional development	In progress		District supported one staff member to attend comprehensive and in-depth energy management seminar to enable staff member to become a Certified Energy Manager to help Identify future green projects and enable efficient use of buildings.
Other: (Please enter any items not included in the above list)			
Anti-Idling community at school drop off and pick up points	In progress		Working with the schools to educate parents on the negative effects on the environment and negative health effects on the students when community members unnecessarily idle vehicles in parking lots.

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	In progress		As replacement is required all fixtures in the district are moving to low flow energy efficient products.
Purchased green cleaning products	In progress		District switched to green cleaning products prior to 2008, but continue to purchase green products.

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

Overview:

The school district will continue to identify projects to reduce Greenhouse Gas Emissions over the coming years. We are committed to providing funding from within the District as well as working with alternate forms of financing such as PSECA, BC Hydro, Terasen Gas, NRCAN and others to help us become Carbon Neutral. The district is currently investigating other forms of energy such as solar, wind and bio-energy to reduce the amount of energy consumption and carbon released into the environment. We are also committed (with the funding from the ministry) to build future schools to the LEED gold standard.

2.1. Mobile Fuel Combustion:

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Replace # of TYPE OF VEHICLE with MORE EFFICIENT VEHICLE/Hybrid	In progress			Continuing
Provide driver training to reduce fuel use	Planned			1 to 2 years
Initiate new fleet maintenance program (could include – changing filters, checking tire pressure, regular check-ups)	In progress			Continuing
Establish anti-idling behaviour change program (e.g. signs, stickers, messages)	In progress			Continuing
Encourage car pooling in fleet vehicles	In progress			Continuing

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			
Supply power bars – to turn off power to non-essential items when not in use (e.g. phone chargers)	In progress			Continuing
Replace # computers with EnergyStar models	In progress			Continuing
Turn off lights in unused rooms	In progress			Continuing
Replace Refrigerators (EnergyStar rated appliance)	In progress			Continuing
Replace other appliances (with EnergyStar rated appliance)	In progress			Continuing
Replace standard bulbs with CFLs	In progress			Continuing
Install motion activated lights	In progress			Continuing
Undertake lighting retrofit	In progress			Continuing
Implement server virtualization	In progress			Continuing
Utilize desk-top power management settings on computer	In progress			Continuing
Unplug unused equipment	In progress			Continuing

Undertake building energy audit at LOCATION(s)	In progress	Continuing
Initiate or complete a building energy retrofit	Planned	Continuing

2.3. Supplies:

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Commit to use 30% recycled paper	Planned			
Initiate automatic double sided printing	In progress			Continuing
Develop document library (online and one printed copy) for large documents	In progress			Continuing
Use collaborative software to edit on-line	In progress			Continuing
Re-use non-confidential scrap paper	In progress			Continuing
Use laptops/tablets	In progress			Continuing
Restructure a process to use less paper	Planned			Continuing
Actions on non-paper related supplies:				
Encourage re-use of furniture and equipment	In progress			

2.5. Employee Engagement

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Provide climate change education	Planned			Starting in 2009
Provide conservation education	Planned			Starting in 2009
Develop Green Teams	In progress			Continuing
Provide green tips	Planned			Starting in 2009
Support professional development	In progress			Continuing

2.6. Sustainability Actions (others)

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Take water conservation measures – low flow showers or toilets, fix leaks	In progress			continuing
Improve recycling measures	Planned			Starting In 2009
Purchase green cleaning products	In progress			Continuing

