

## Carbon Neutral Action Report School District No. 34 (Abbotsford)

### Executive Summary

Abbotsford School District has been diligently working for many years to save energy, reduce consumption, and improve the general way of life for our staff and students. We are recognized as a "PowerSmart Leader" by BC Hydro, and as such, we get a lot of encouragement and support in the work we do. We have retrofitted our properties to reflect the latest technologies in lighting, heating and building control systems.

We are committed to becoming one of the most sustainable School Districts in BC and will ensure that every reasonable effort is made to conserve energy and resources in order to reduce the School District's Carbon footprint and achieve Carbon neutrality. Our Carbon neutral plan includes an Energy Management Plan (EMP) that includes, but not limited to, the following key actions:

- 1 Integration of environmentally sustainable considerations into the School District's business decisions related to: Lighting, HVAC, New and Renovation Construction, and Recycling programs
- 2 Mechanisms to report to the Board of Education on energy management and sustainability progress (Energy Policy)
- 3 We are preparing a Purchasing Policy that will include Energy Star products and encourage suppliers to meet or exceed our environmental management standards
- 4 Commit to a program of ongoing awareness and training to increase involvement, knowledge and competence of staff and students in energy management

Our "Green Team" approach to having each School organize a (teacher-led, student-driven) team whose responsibility is to organize and implement new and existing methods of saving energy, is winning accolades from our peers. Included are such activities as meter reading (and graph plotting to compare previous sessions), computer shut downs and recycling efforts. The kids have designed their own "turn it off" light switch stickers too, a very successful program.

### 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	Complete	Replaces an existing diesel unit	Purchased 1 (one) Hybrid bus
Provided driver training to reduce fuel use	Complete	This is a bi-annual program	Will be continued
Initiated new fleet maintenance program (could include – changing filters, checking tire pressure, regular check-ups)	Complete	Documented, high quality, Government approved facility and mechanics	Will be continued

Established anti-idling behaviour change program (e.g. signs, stickers, messages)	Complete	Signs posted at schools and facilities building...If bus or maintenance vehicle is seen idling, drivers are reported to Department Manager	Will be continued
Encouraged car pooling in fleet vehicles			Not yet considered (good idea)
Encouraged use of public transit/active transportation	In progress	Part of our "behavioural" approach to school principals to pass on to the students	Will be continued
Encouraged alternatives to travel in fleet vehicles – bicycles, scooters, electric carts	In progress	Part of our "behavioural" approach to school principals to pass on to the students	Will be continued
Changed from gas to electric lawn maintenance equipment			Not yet considered (good idea)
Changed to manual lawn and yard maintenance equipment			Not yet considered (good idea)
Established travel reduction goals	In progress	Part of our "behavioural" approach to school principals to pass on to the students	
Adopted a travel policy	In progress	Part of our "behavioural" approach to school principals to pass on to the students	
Installed Closed Crankcase Ventilation (CCV) equipment in bus fleet.	Complete	Reduces crankcase emissions of blow-by gases	
Buses commence their trips within their own school catchment area.	Complete	Buses are parked at or near the driver's residence and used for far less distance than starting from the Garage every morning	Will be continued

## 1.2 Stationary fuel combustion and electricity

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Undertaken workstation tune-ups to help staff understand what they can do to reduce personal energy use			Not yet considered (good idea)
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		Part of our "Green Team" work	Will be continued
Replaced # computers with EnergyStar models	In progress	Is being completed on an as-needed basis. We are looking at "EnergyStar" School Policy as we speak	
Asked staff to close blinds daily			Not yet considered (good idea)
Used air dry setting on dishwashers			Not yet considered (good idea)
Encouraged staff to use stairs	In progress	Part of our "behavioural" approach to school principals to pass on to the students	
Turned off lights in unused rooms		Part of our "Green Team" work	Will be continued
Replaced Refrigerators (EnergyStar rated appliance)	In progress	Is being completed on an as-needed basis. We are looking at "EnergyStar" School Policy as we speak	
Replaced other appliances (with EnergyStar rated appliance)	In progress	Is being completed on an as-needed basis. We are looking at "EnergyStar" School Policy as we speak	

Installed multi-function devices (and removed stand-alone printers/faxes)	Complete		
Replaced standard bulbs with CFLs	Complete		
Installed motion activated lights	Complete		
Undertaken lighting retrofit	Complete		
Implemented server virtualization	Complete	Reduced 50 servers to 5 at ITC	Will be continued
Utilized desk-top power management settings on computer	In progress		Will be continued
Initiated corporate computer shut-down/wake-up for maintenance	In progress		Will be continued
Unplugged unused equipment		Part of our "Green Team" work	Will be continued
Applied for LEED existing building rating			Not yet considered (good idea)
Undertaken building energy audit at LOCATION(s)	Complete		
Initiated or completed a building energy retrofit	Complete		
PC Virtualization	In progress	We are just commencing two pilot projects that will replace up to 30 stand alone PCs with nComputing hardware, plus we are installing Frolics software for PC+iMac shutdown	Will be continued
Replaced F32W T8 fluorescent lamps with 25W	In progress	Completed for 95 portable buildings and 25 schools, 25 buildings remaining	
Replacing 1,500W under-desk heaters with 170W IR units	In progress		

### 1.3 Supplies

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Committed to use 30% recycled paper	Complete		
Committed to use 100% recycled paper			Not yet considered (good idea)
Initiated automatic double sided printing	Complete		
Changed document template margins		We discourage the printing of emails and letters in general	Not yet considered (good idea)
Committed to hold paperless meetings	In progress	Staff is involved in an increasing number of Web broadcasts and conference calls	
Developed document library (online and one printed copy) for large documents			Not yet considered (good idea)
Used collaborative software to edit on-line			Not yet considered (good idea)
Re-used non-confidential scrap paper		All our waste paper presently goes to recycling	Not yet considered (good idea)
Used laptops/tablets	In progress	They get recycled in-house as best they can, or get sent to e-Recyclers	
Restructured a process to use less paper	In progress	We discourage the printing of emails and letters in general	
<b>Actions on non-paper related supplies:</b>			
Purchased cradle to cradle goods			Not yet considered (good idea)
Chose "Green" items from Distribution Centre	Complete	Absolutely	
Encouraged re-use of furniture and equipment	Complete	Absolutely	
Purchasing a fluorescent tube bulb breaker	Complete	In order to refrain from sending these harmful materials to landfill	

Modifying our "Purchasing Policy"	In progress	In order to mandate Full Cost accounting (FCA) principles of NPV/IRR approach to management and purchasing materials	
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### 1.4 Travel

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Set a X% Travel reduction goal			Not yet considered (good idea)
Trained staff in the use of Live Meeting (or other desktop collaborative software)			Not yet considered (good idea)
Installed Video Conferencing facilities			Not yet considered (good idea)
Initiated Travel Policy			Not yet considered (good idea)
Mandated car pooling to government meetings			Not yet considered (good idea)
Supported alternative travel (bike/skateboard/walk/transit) for meetings			Not yet considered (good idea)

### 1.5 Employee Engagement

Action	Action Taken	Outcome/Performance Measure	Notes Clarifying Action Taken
Provided climate change education	In progress	In our involvement with BC Hydro, we invited them to deliver student education programs to all our schools	2 days of presentations were provide to 200 student in Jan '09
Provided conservation education	In progress	In our involvement with BC Hydro, we invited them to deliver student education programs to all our schools	Will be continued
Held contests to change behaviour/make pledges		Launched electricity reduction contests with monetary prizes for various levels of reduction... Part of our "Green Team" work	Will be continued
Held contests/support to generate ideas		Part of our "Green Team" work	Will be continued
Developed Green Teams	Complete	32 out of 47 (70%) of our schools have "Green Teams"... Financial support of \$200 per year provided	
Supported Green Teams (resources)	Complete	We have a "Sustainability Management Group" to support the "Green Teams"	
Provided green tips	Complete	On a regular basis for kids to discuss with the Green Team and to take home, plus on our web page	Will be continued
Supported professional development	In progress	Staff are given opportunity to attend workshops and seminar on climate change and energy workshops	Will be continued
Added green work goal to performance management			Not yet considered (good idea)

### 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		
Reduced/replaced bottled water with filtered or refrigerated water			Not yet considered (good idea)
Improved recycling measures	Complete	Moved from ad-hoc approach to ensuring "Recycling" is now School Policy	
Supported composting	Complete		

Used re-usable dishes			Not yet considered (good idea)
Purchased green cleaning products	Complete		
Used green (low-e paints)		We are switching to low-VOC paints	Not yet considered (good idea)
Supported sustainable procurement practices	In progress		
Adopted low-carbon contracting practices			Not yet considered (good idea)
Planted new trees (Carbon sequester)	Complete	The Evergreen Foundation "Carbonator Project" application made	

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

<b>Overview</b>	We will continue to seek innovate technology and increase behavioural changes to reduce its GHG emission. Also to pay for its Carbon offset credits through reduced energy consumption and resulting energy cost savings.
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### 2.1 Mobile Fuel Combustion

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Car pooling for staff	In progress	Additional work required that may require rescheduling staff shift times		

### 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	In progress			
Supply power bars – to turn off power to non-essential items when not in use (e.g. phone chargers)	In progress			
Replace # computers with EnergyStar models	In progress			
Replace Refrigerators (EnergyStar rated appliance)	In progress			
Replace other appliances (with EnergyStar rated appliance)	In progress			
Install multi-function devices (and remove stand-alone printers/faxes)	In progress			
Implement server virtualization	In progress			
Initiate corporate computer shut-down/wake-up for maintenance	In progress			

### 2.3 Supplies

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
<b>Actions on non-paper related supplies:</b>				
Purchase cradle to cradle goods	In progress			

### 2.4 Sustainability Actions (others)

Action	Action Planned	Outcome/Performance Measure	Notes Clarifying Action Taken	Timeframe
Planting New Trees (carbon sequester)	planned	Plant 68 trees to fulfill Evergreen Foundation Grant	Carbonator project approved by Evergreen	Fall 2009