

School District 79 (Cowichan Valley) - 2009 Carbon Neutral Action Report

COWICHAN VALLEY
SCHOOL DISTRICT



Executive Summary

BC School Districts were mandated to meet Carbon Neutrality starting January 1, 2010. To this end School District 79 has been taking many measures to reduce its Carbon footprint. The District also adopted a policy on Resource Management and Sustainability. Long term reduction goals have been adopted which fall in line with the BC Energy Plan and Bill 44-2007: Greenhouse Gas Reduction Targets Act. Due to the fact that available capital funding has been limited School District 79 has had to reduce the implementation of identified projects. Efforts have been focused on behaviour/awareness programs and operational changes. Results of these programs are:

1. Substantial transportation fuel savings by implementing anti idling and Drive Smart programs.
2. A reduction of approximately 10% in Electricity and Natural gas consumption in the second half of 2009.

Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2009

Transportation department projects include an anti-idling program and Drive Smart education. Reprogramming of buses to maximize fuel economy is ongoing.

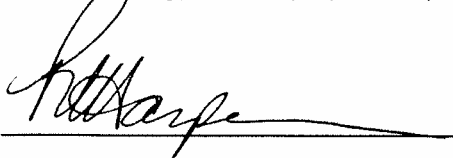
Operations department projects undertaken in the past year have been; building envelope projects at two sites, lighting projects, replacement of aging unit ventilators and the addition of some DDC controls.

Operational Changes in 2009

One Elementary school was closed in March of 2009 when a new Elementary School was opened. Costs associated with the ongoing maintenance of a closed facility remain.

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

The District will undergo the implementation of the BC Hydro Behavioural Pilot Program. This program has an effect on the continued reduction of Greenhouse Gas Emissions regardless of the Capital funding. School District 79 will complete as many energy retrofit projects as possible.



Robert Harper, Secretary-Treasurer

School District 79 Cowichan Valley - 2009 Carbon Neutral Action Report

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 12/31/09)	Performance to Date (as of 12/31/09)		Steps Taken in 2009	Steps Planned for 2010 -2012	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	50	% of vehicles are fuel- efficient models	3 of 39 busses and 2 of 37 operations vehicles replaced.	Continually replace vehicles as budgets allow.	2000	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	8	% of vehicles down-sized since start year indicated	Down-sized 3 busses to match district route layouts.	Continually down-sizing of Operations vehicles as budgets allow.	2009	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	Oil, lube and filter changes on : busses every 4000 km, operations vehicles every 2800 km Tune-ups as required.	Oil, lube and filter changes on : busses every 4000 km, operations vehicles every 2800 km Tune-ups as required.	1990	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress	30	% of small maintenance vehicles are fuel-efficient	Replaced 2 ride-on mowers with more fuel efficient mowers.	Continually replace equipment as budgets allow.	2008	No End Date (Continuous)
Behaviour change program							
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	50	% of current drivers are trained	All bus drivers given Drive Smart course.	All district drivers to be trained by 2012	2009	No End Date (Continuous)
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Ongoing/In Progress	95	% of current drivers are trained	Anti-idling awareness information given and signs posted	reminders to be issued	2009	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress	100	% of staff encouraged to carpool	carpooling is encouraged	continue to encourage car pooling	2007	No End Date (Continuous)
Other Mobile Fuel Combustion Actions							
Making Bus routes more efficient	Ongoing/In Progress			2009 bus routes were redrawn. Implementation of routing software.	continue to review routes for efficiencies	2009	No End Date (Continuous)
Encourage Slower Driving	Ongoing/In Progress			maximum speeds for routes set on bus computer communicate importance of slower driving to Drivers	continue promotion	2009	No End Date (Continuous)
Deliveries direct to school sites	Ongoing/In Progress			many items are shipped directly to the schools rather than using District central distribution	expand site deliveries	2004	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							
Enrol in a building energy benchmarking program (e.g., GREEN UP)	Ongoing/In Progress	95	% of buildings complete	compare building performance with other School Districts through SD Energy Managers	set up a province wide data base for schools	2009	No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	0	% of buildings have a real time metering system installed	approval for program to start in one school in 2009	2010 - one school on line 7 schools on line by 2012 (all large sites)	2009	2012
Owned buildings							

School District 79 Cowichan Valley - 2009 Carbon Neutral Action Report

Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)		Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Establish energy performance baseline for owned buildings	Ongoing/In Progress	97	% of owned buildings have an established energy performance baseline	all established buildings complete one new building occupied in 2009	baseline for new building to be established by July 2011 no new buildings anticipated	2009	2011
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	In Development				develop a form for HVAC personnel to complete recording Air Conditioning maintenance	2010	2010
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress	12	% of owned buildings have undergone energy retrofits since start year indicated	Heating project done at one site two lighting projects two building envelop projects	projects to be determined and developed based on capital funding	2009	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	3	% of retrofits (captured above) had heating, cooling, and ventilation systems upgrades	replace 6 old unit ventilators with new units	ongoing replacement planned for aging equipment	2009	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	6	% of retrofits (captured above) had lighting systems upgrades	replace metal halide fixtures with T5 fluorescents replaced T12 Fluorescents with T8 Fluorescents	to replace remaing T12 fluorescent fixtures replace some metal halide lighting relamp T8 32 watt lamps with T8 28 watt lamps	1998	2012
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	3	% of retrofits (captured above) had control system upgrades or adjustments	add new DDC controls to new unit ventilators	add DDC controls to mechanical systems where feasible	1998	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress			Building envelop projects at two sites	window replacement/upgrades planned	2009	No End Date (Continuous)
Install an on-site renewable energy demonstration project	In Development				submit application to Solar BC for 3 Solar domestic hot water systems	2010	2011
Leased buildings							
Establish energy performance baseline for leased buildings	Complete	100	% of leased buildings have an established energy performance baseline	all baselines established for existing leased buildings in 2009		2009	2009
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	0	% of computers shut down automatically outside of regular business hours	starting testing of shut down software in computer labs	2010 - install shut down software in all PC labs - test software in MAC lab 2011 - install software in MAC labs Software planned to be installed on 3000 computers	2009	2011
Implement server virtualization	In Development				in planning stage	2010	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	90	% of computers have auto-sleep settings applied	sleep settings are set when computers are added to system	sleep settings are set when computers are added to system	1998	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Complete	15	% reduction in printers, copiers, and/or fax machines since start year indicated	multi function machines installed at all sites		2009	2009
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	100	% of devices have auto-sleep settings applied	installed on all new equipment	ensure new equioment have auto sleep settings applied	1998	No End Date (Continuous)

School District 79 Cowichan Valley - 2009 Carbon Neutral Action Report

Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)		Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	80	% of computers are ENERGY STAR rated	all new computers are Energy Star rated	all new computers will be Energy Star rated	2004	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			All new appliance purchased were Energy Star rated	All new appliance purchased will be Energy Star rated	2000	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			All new electronics purchased were Energy Star rated	All new electronics purchased will be Energy Star rated	2000	No End Date (Continuous)
Replace desk lamp incandescent bulbs with compact fluorescent (CFL) bulbs or source more efficient desk lamps for future purchases	Ongoing/In Progress			CFL lamps are standard replacement for all incandescent lamps	CFL lamps are standard replacement for all incandescent lamps	2006	No End Date (Continuous)
Behaviour change program							
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress			Green Tips included in Monthly District Newsletters	continue with Green Tips in newsletters distribute Green Tips through District emails in subject line	2009	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			Green Tips included in Monthly District Newsletters	continue with Green Tips in newsletters distribute Green Tips through District emails in subject line	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			Green Tips included in Monthly District Newsletters	continue with Green Tips in newsletters distribute Green Tips through District emails in subject line	2009	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			some stickers put on light switches	expand district wide sticker and poster campaign	1990	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			turn down temperature on domestic hot water where possible	turn down temperature on domestic hot water where possible	2007	No End Date (Continuous)
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	32	% of total paper purchased contains 30% recycled content	staff were encouraged to purchase paper with recycled content	staff will continue to be encouraged to purchase paper with recycled content	2009	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	8	% of total paper purchased contains 100% recycled content	staff were encouraged to purchase paper with recycled content	staff will continue to be encouraged to purchase paper with recycled content	2009	No End Date (Continuous)
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	In Development				under discussion	2010	2012
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	Ongoing/In Progress	2	% of network printers have 'print and hold' settings applied	utilized for confidential documents	discuss expanding to other staff	2009	No End Date (Continuous)
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development				testing and development	2010	No End Date (Continuous)

School District 79 Cowichan Valley - 2009 Carbon Neutral Action Report

Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)		Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Use electronic document library for filing common documents	In Development				developing a District Library	2010	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			newsletters and notices, online reports	continue to expand scopr.	2009	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress	50	% of staff receiving electronic notification.	Teachers and Excluded Staff	unionized support staff in 2010	2009	2010
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development				training to take pace 2010 - 2011	2010	2011
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress	10	% of meetings done paperless	some committees chose to do paperless meetings	committees will be encouraged to go paperless	2009	No End Date (Continuous)

School District 79 Cowichan Valley - 2009 Carbon Neutral Action Report

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 reporting requirements defined in the carbon neutral government regulation of the *Greenhouse Gas Reduction Targets Act*. Public sector organizations can optionally use this section to 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 12/31/09)	Performance to Date (as of 12/31/09)		Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Business Travel							
Virtual meeting technology							
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress			software available district wide - loaded when necessary	software available district wide - loaded when necessary	2007	No End Date (Continuous)
Make desktop web-cameras available to staff	Ongoing/In Progress			all staff have access to web cam when needed	all staff have access to web cam when needed	2007	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Ongoing/In Progress			meeting rooms with video confernece capabilities at all sites	meeting rooms with video confernece capabilities at all sites	2007	No End Date (Continuous)
Behaviour change program							
Train staff in web-conferencing	Ongoing/In Progress	10	% of staff are trained web-conferencing	Tech staff have been trained and avialbe to assist	expand training to other staff	2008	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress	100	% of staff are trained in video-conferencing or have access to technical support	Tech staff have been trained and avialbe to assist	expand training to other staff	2008	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			staff encouraged to access video conferencing when ever possible	continue to encourage staff to access video conferencing when ever possible	2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			encourage carpooling whenever possible	continue to encourage carpooling	2009	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress			alternate travel encouraged whenever possible	continue to encourage alternative travel	2009	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			sustainability committee established	to develop Green teams and Energy champions at each site	2009	2012
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress			sustainability committee, Energy Manager and BC Hydro	sustainability committee, Energy Manager and BC Hydro	2009	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	In Development				BC Hydro Behavioural pilot program starting 2010	2010	2012
Awards/Recognition							
Establish a sustainability/green awards or recognition program	In Development				discussed at Sustainability committee meetings	2010	No End Date (Continuous)
Staff Professional Development							
Support green professional development (e.g., workshops, conferences, training)	In Development				discussed at Sustainability committee meetings	2010	No End Date (Continuous)

School District 79 Cowichan Valley - 2009 Carbon Neutral Action Report

Action	Status (as of 12/31/09)	Performance to Date (as of 12/31/09)	Steps Taken in 2009	Steps Planned for 2010 -2012	Start Year	End Year
Staff awareness/education						
Provide education to staff about the conservation of water, energy, and raw materials	In Development			in conjunction with Solar projects	2010	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress		Green Tips included in monthly newsletters	continue to include Green Tips in monthly newsletters	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		low flow fixtures used during renovations and retrofits	low flow fixtures used during renovations and retrofits	2004	No End Date (Continuous)
Waste reduction/diversion						
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress		hazardous wastes are disposed of through Environmental contractors	hazardous wastes are disposed of through Environmental contractors	1994	No End Date (Continuous)
Procurement (non-paper supplies)						
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress		Majority of cleaning products are ecoseal rated	Majority of cleaning products are ecoseal rated	2007	No End Date (Continuous)
Building construction, renovation, and leasing						
Incorporate lifecycle costing into new construction or renovations	In Development			Ministry Capital Asset Management Program in development stages	2010	No End Date (Continuous)
Indoor air quality						
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Ongoing/In Progress		Scent awareness campaign initiated throughout District	consideration given to put into policy	2009	2010
Commuting to and from home						
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		staff are encouraged to carpool and use alternative transportation	staff will continually be encouraged to carpool and use alternative transportation	1995	No End Date (Continuous)
Provide secure bicycle storage	Ongoing/In Progress		bicycle storage available at all sites	bicycle storage available at all sites	1995	No End Date (Continuous)
Other Sustainability Actions						
Implement Resource Management and Sustainability Policy	Complete		developed and implemented Policy		2009	2009