

School District No.59 - 2009 Carbon Neutral Action Report

Executive Summary

School District No. 59 (Peace River South) has made significant changes to our district in an effort to become carbon neutral. Living in the north we recognize energy for heating is a priority. We have begun a process for improving our energy consumption by replacing furnaces and boilers with new high efficient models. This is an ongoing process but by the end of 2010 we will have replaced 60% of our boilers and furnaces to high efficient models. Included in these projects are updated controls for optimum efficiency and comfort. The district is also working on energy saving lighting fixtures, lamps, and building envelope upgrades. We have purchased a software program to identify and monitor utilities on an on-going basis as well as identify future savings.

In our fleet we have reduced the number of vehicles, share vehicles for groups working different schedules and have reduced travel for out of town projects by working a 10 hour four day week. We have worked with Destination Conservation for many years and reward schools and students for their environmental stewardship work and reduction of their carbon foot print.

Overviews

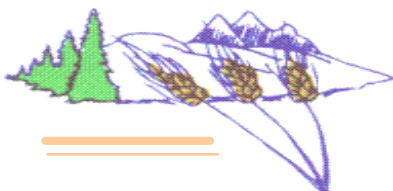
Actions Taken to Reduce Greenhouse Gas Emissions in 2009

School District No. 59 (Peace River South) had several key initiatives last year. We have installed new energy efficient furnaces in five of our buildings. In one of the building we were able to change the supply fuel from propane to natural gas further reducing our energy costs.

We have installed two solar walls in two of our high schools. With rebates from BC Hydro we have replaced incandescent lighting in our crawl spaces with compact fluorescent and upgraded lighting fixtures, ballasts and lamps.

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

School District No. 59 will continue our efforts to reduce Greenhouse Gas Emissions by continuing to focus on heating systems. With new efficient heat plants and upgraded controls we are capturing significant reductions. We are also working with BC Hydro to develop an Energy Manager position for our district.



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Peace River South

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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 larger vehicles with smaller models according to fleet "right-sizing" principles	In Development				Evaluate fleet and usage when replacing old units	2008	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	Bus fleet is inspected every 250 hours or 2500km (replacement of air filters, tire pressure checked, fuel filter replaced on Diesel engines and spark plugs and wires replaced every 30000km on gas engines. Maintenance vehicle inspected every 5000km	Continue with regular maintenance schedule.	2008	No End Date (Continuous)
Behaviour change program							
Provide fleet driver training to reduce fuel use	In Development			Trained two staff to present driver training program to all staff.	Establish training sessions for staff and a ongoing procedure for new staff.	2008	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			Awareness to all staff to reduce/eliminate idling.	Establish anti-idling sites.	2009	2011
Encourage carpooling in fleet vehicles	Ongoing/In Progress			Coordinate work schedules to eliminate travel of multiple vehicles to the same site. For longer travel (out of town work) four 10 hour days to eliminate one day of travel.	Continue with staff awareness and coordinating work schedules	2008	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Owned buildings							
Establish energy performance baseline for owned buildings	Ongoing/In Progress	100	% of owned buildings have an established energy performance baseline	Verify and record all energy data for last two years to establish baseline.	Purchase energy management system to monitor energy usage.	2008	No End Date (Continuous)
Complete energy retrofits on existing, owned buildings	In Development				Work with BC Hydro to create a Energy Manager, evaluate sites and look at options.	2008	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	60	% of retrofits (captured above) had heating, cooling, and ventilation systems upgrades	New high efficiency furnaces, boiler plants and DDC control,	Purposed 25% upgrades: high efficiency furnaces, boiler plants and DDC control.	2008	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	70	% of retrofits (captured above) had lighting systems upgrades	Upgrade to T8 and T5 ballasts and lamps, CFL lamps used for crawl space lighting, motion switching,	Continued upgrade of lighting fixtures and switching.	2000	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	37	% of retrofits (captured above) had control system upgrades or adjustments	Install DDC heating controls with ability to control lighting. Motion control switching.	Proposed 20% upgrade to DDC control.	2008	No End Date (Continuous)

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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
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	15	% of retrofits (captured above) had insulation improvements	Installed new windows doors and added extra insulation to exterior walls.	Install extra insulation on outside gym walls, replacement of windows and exterior doors.	2008	No End Date (Continuous)
Install an on-site renewable energy demonstration project	Ongoing/In Progress	5	% of retrofits (captured above) had on-site renewable energy components	Installed solar walls, solar panels, windmill and using rain water for toilets and irrigation.	Purposed 5 kw solar system with net metering.	2006	No End Date (Continuous)
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	50	% of computers shut down automatically outside of regular business hours	Computers are set up with sleep and shut down settings as default.	Investigating power management software for computers.	2006	2012
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	95	% of computers have auto-sleep settings applied	All new computers had sleep settings as default.	Continue with settings with new and repaired computers.	2004	2011
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	15	% reduction in printers, copiers, and/or fax machines since start year indicated	Link fax machines, printers and copiers to multiple users.	Continue to replace old printers with network printers and reduce the quantity.	2008	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	80	% of devices have auto-sleep settings applied	Auto-sleep is default setting for new purchases.	Set auto-sleep for machines with this option.	2007	2012
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	80	% of computers are ENERGY STAR rated	New purchases meet energy star ratings.	Continue to replace old computers with energy star models.	2006	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	75	% of fridges are ENERGY STAR rated	New purchases must meet energy star rating.	Continue to use energy star rated fridges for replacements.	2008	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 purchases must meet energy star ratings.	Continue to use energy star rated appliances, and reduce total number.	2008	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			Replace 20 % of incandescent crawl space lighting with CFL	Using BC Hydro rebates continue to upgrade crawl space lighting	2008	2012
Behaviour change program							
Help staff reduce personal energy use through "workstation tune-ups"	Ongoing/In Progress	10	% of current staff have completed a workstation tune-up	Advised specific staff for their work area.	Develop procedure and awareness for staff to evaluate their workstation.	2008	2012
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress			Install power bars on computer labs and advise staff.	Develop procedure for awareness.	2008	2012
Encourage use of stairs instead of elevators	Ongoing/In Progress			District has web based health and wellness site. Employee's are encouraged to participate in healthy activities and record them for rewards.	More awareness of the health and wellness site and improved rewards.	2006	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Working on labels to remind staff and students to turn off lights. Twelve schools involved in Destination Conservation.	Continued support of Destination Conservation and develop a Sustainability Committee steward energy saving ideas.	2003	2012

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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
Promote hot water conservation	Ongoing/In Progress			Awareness to staff and students.	Develop Sustainability Committee create awareness for staff and students.	2008	2012
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	100	% of total paper purchased contains 30% recycled content	All photo copy and printer paper is 30% recycled.	Further investigation and trial of high % recycled paper.	2009	No End Date (Continuous)
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	40	% of network printers or photocopiers are set to automatic double-sided	New printers and copiers are set to double sided.	Continue to reduce number of printers and update settings.	2006	No End Date (Continuous)
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	90	% of staff workstations with software installed	Introduced electronic leaves, time sheets, and work orders.	Training for staff on new electronic systems.	2008	No End Date (Continuous)
Use electronic document library for filing common documents	In Development			Research systems for electronic storage.	Purchase and implement new software program.	2008	2011
Post materials online that were previously printed	Ongoing/In Progress			Server based information for room booking, equipment bookings, floor plans.	Have equipment manuals, maintenance schedules, and maintenance procedures on web based program.	2008	2012
Switch to an electronic payroll notification system in place of paper pay stubs	Complete			We use a electronic payroll system and staff are emailed pay stubs.		2006	2009
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	75	% of staff currently have received collaborative software training	New staff receive training when hired.	Continue to train new hires and training for existing staff.	2006	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			Have paperless meetings using projectors, electronic memos, etc.	Install smart boards in classrooms.	2006	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress			Scrap paper containers near fax and copiers.	Procedure for scrap paper to be reused.	2006	No End Date (Continuous)
Other Paper Supplies Actions							
recycling	Ongoing/In Progress			schools collect recyclable material and maintenance picks up.	Evaluate and share working procedures from all schools.	2006	No End Date (Continuous)
Limited color paper	Complete			District orders for white paper only, schools have to purchase color paper.		2008	2009

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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						
Behaviour change program						
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress		We have two meeting rooms available for staff set up with a projector and phone system.	Instruction for staff on how to use equipment.	2006	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress		Staff encouraged to car pool.	Investigating the idea of purchasing a hybrid vehicle for staff to use.	2006	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		Schools work with Destination Conservation and have green teams in their buildings.	Link all school groups together to share ideas and work towards a common goal.	2000	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	In Development		We provide resources to support school green teams.	Working on assigning management staff to work with all green team.	2000	No End Date (Continuous)
Providing behavior change education/training to teams (e.g., community-based social marketing)	Ongoing/In Progress		Destination Conservation provides training for school staff and students.	Look at other opportunities to provide training.	2000	No End Date (Continuous)
Awards/Recognition						
Establish a sustainability/green awards or recognition program	Ongoing/In Progress		Green teams in schools are rewarded for their efforts.	work with school staff to bring the groups together and share ideas.	2000	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		We use water efficient fixtures and at one school we capture the rain water and use it to flush toilets.	Establish plan written plan and procedure.	2006	2012
Put in place a potable water management strategy to reduce potable water demand of building-level uses such as cooling tower equipment, toilet fixtures, etc. and landscape features	Ongoing/In Progress		One school collects rain water from the roof and uses it to flush toilets.	Investigate installing more similar systems.	2007	No End Date (Continuous)
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	Ongoing/In Progress		On new installs water produced by condensing furnaces and boilers is treated before going into the drain.	Continue to install water treatment on new furnaces/boilers and develop a program to replace existing ones.	2008	No End Date (Continuous)
Waste reduction/diversion						
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	Ongoing/In Progress		We have installed reverse osmosis filters for tap water and removed bottled water at our Board Office. Schools have recycling programs.	Continue with filtering installations and network with schools to share recycling ideas.	2004	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress		Electronic equipment, batteries, paint, etc. are taken to recycling facilities.	Continue with recycling procedures and investigate other opportunities.	2006	No End Date (Continuous)
Procurement (non-paper supplies)						

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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
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress		We are replacing our standard cleaning products with green products for our custodial department.	Continue to research cleaning products and use them to replace the non-green products.	2008	No End Date (Continuous)
Indoor air quality						
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Ongoing/In Progress		The district has signage and information at schools advising they are scent free.	Continue educating staff and students.	2005	No End Date (Continuous)
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	Ongoing/In Progress		Maintenance uses only latex low VOC paint for schools.	Investigating latex paint for outdoor metal structures and move the last of our oil paint to latex.	2008	2012
Commuting to and from home						
Offer staff a compressed work week	Ongoing/In Progress		Our maintenance staff have the opportunity to work four ten hour days reducing the work week by one day.	Look for other opportunities to compress the work week.	2005	No End Date (Continuous)
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		We offer rewards to staff who participate in our health and wellness program.	Investigate other ways to encourage staff.	2005	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Ongoing/In Progress		Staff and students have lockers available.	Look at need for showers and location.	2006	2012
			We provide bike racks at all off our schools and have added racks to our			