

Board Of Education of School District #60 (Peace River North)

2009 Carbon Neutral Action Report

Executive Summary

School District #60 has been engaged in energy reducing initiatives since the early 1990's beginning with a complete district evaluation providing the framework for the development of an achievable and sustainable plan. The plan was initiated by a complete lighting retrofit in all locations, installation of direct digital control of all heating plants and air distribution systems, installation of solar walls providing pre-heating of outdoor air, elimination of user set thermostats and occupancy monitored requirements for outdoor air. As well an Energy manager was appointed and electronic programs were installed to record and monitor energy usage.

Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2009

On-going work in 2009 included the replacement of 9 heating units with high efficiency units as they had reached the end of their useful life. We are currently in the final phase of the plan; this mandate is to increase the efficiency of all units to the highest efficiency possible using available funding from the annual facilities grant. On-going monitoring and evaluations occur on a daily basis to achieve peak performance. Grant applications are currently being submitted for the replacement of exit lighting with self powered units reducing electrical consumption.

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

The district understands and appreciates the need to become carbon neutral and is committed to the further reduction of greenhouse gas emissions by using available funding to evaluate geo thermal and solar heating, replacement of low efficiency heating units and the installation of high efficiency hot water heaters. We have two sites engineered to install geo; how and when we proceed will depend on available funding. An education component for both staff and students is also being considered for implementation in future school years.



“ Together We Learn “

Peace River North, SD 60 - 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	42	% of vehicles are fuel- efficient models	Replaced 4 busses with fuel efficient models	continuation of older bus replacement with fuel efficient models as funding permits Target aging vehicles as funding allows	2008	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	0	% of vehicles down-sized since start year indicated	we are "upsizing"; replacing smaller busses with larger busses making less trips	continue as funding allows	2009	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Complete	100	% of vehicles are subject to regular maintenance for fuel efficiency	regular maintenance and documentation of all district owned vehicles		1990	No End Date (Continuous)
Behaviour change program							
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	100	% of current drivers are trained	training sessions to continue yearly	on going training sessions	2007	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress			one fleet vehicle to transport teacher to rural school	continue carpooling	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	10	% of owned buildings have an established energy performance baseline	monitoring of present use	analysis of data collected	2009	No End Date (Continuous)
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress	100	% of owned buildings have undergone energy retrofits since start year indicated	all buildings have had lighting upgrades completed in 2002. (T8 tubes, electronic ballast and 40% less fixtures). Yearly ongoing replacement of older furnaces, boilers and hot water tanks with high efficiency units	Installation of two "on demand" hot water tanks for evaluation. Continuation with replacement of older furnaces with "high efficiency" units.	2001	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	20	% of retrofits (captured above) had heating, cooling, and ventilation systems upgrades	ongoing replacement of aging furnaces using maintenance monies as available.	Continued replacement of aging equipment as annual facilities grant allows.	2007	No End Date (Continuous)
Upgrade lighting systems during retrofits	Complete	99	% of retrofits (captured above) had lighting systems upgrades	installation of motion sensors to turn off lighting in unused areas	continuation	2010	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	80	% of retrofits (captured above) had control system upgrades or adjustments	continued calibration of controls	continued	2009	No End Date (Continuous)

Peace River North, SD 60 - 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
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	30	% of retrofits (captured above) had insulation improvements	some windows replaced during maintenance	continue as AFG allows	2008	No End Date (Continuous)
IT power management							
Implement server virtualization	Ongoing/In Progress	50	% of servers have been virtualized since start year indicated	5 % were completed this year	continuing	2009	2012
Apply auto-sleep settings on computer monitors and CPUs	Complete	100	% of computers have auto-sleep settings applied	installed auto sleep on all new computers		2008	2010
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Complete	100	% of devices have auto-sleep settings applied	installed auto sleep on all new printers		2008	2010
Appliances and electronic devices							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress	50	% of fridges are ENERGY STAR rated	replacement of 3 fridge units	as required	2009	2009
Replace other appliances or electronic devices with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress			recommended for all purchases.	as required	2004	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			on going reminders	continued reminders	2009	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			Custodians close "moveable tackboards" over windows nightly. As well exterior insulated shutters (where equipped) automatically close nightly	custodial reminders to ensure blinds are closed	2008	No End Date (Continuous)
Encourage use of stairs instead of elevators	Complete			we only have two elevators in the district so stairs are the normal use.		1990	No End Date (Continuous)
Promote hot water conservation	In Development			reduced heat on water tanks	monitor heat levels	2005	No End Date (Continuous)
Supplies (Paper)							
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	Complete	100	% of network printers or photocopiers are set to automatic double-sided	all machines that are capable of double siding		2008	2009
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Complete	100	% of staff workstations with software installed	Moodle, Elluminate		2009	No End Date (Continuous)
Use electronic document library for filing common documents	Complete			Moodle		2009	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			Pre-employment requirements are completed on-line. WHMIS, TDG, Harassment course are on-line training. Moodle	add as required	2008	No End Date (Continuous)

Peace River North, SD 60 - 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
Switch to an electronic payroll notification system in place of paper pay stubs	Complete			all employees receive notification of earnings via email		2009	No End Date (Continuous)
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	80	% of staff currently have received collaborative software training	Use of Moodle, Elluminate.	ongoing sessions	2008	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			Board Meetings are paperless now.	investigate if this program can be expanded to other areas	2008	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress			postings above photo copiers to reuse paper	recycle boxes in classrooms for the reuse of paper	2007	No End Date (Continuous)

Peace River North, SD 60 - 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.)	Complete	100	% of computers have web-conferencing software installed	Elluminate		2008	2009
Make desktop web-cameras available to staff	Ongoing/In Progress	90	% of staff have access to a desktop web-camera	training in use of cameras	technology staff available to train on request.	2008	2009
Behaviour change program							
Train staff in web-conferencing	Ongoing/In Progress	100	% of staff are trained web-conferencing	train new staff on hire	continued training	2008	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			encouraging staff from out laying schools to use virtual where possible	continued	2008	No End Date (Continuous)
Education, Awareness, and Engagement							
Staff Professional Development							
Support green professional development (e.g., workshops, conferences, training)	In Development				dialogue with Destination Conservation with possible entry into the program	2010	2012
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			12 toilets changed to 6l models	ongoing replacement	2009	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			all paper and cardboard pickup for transfer to re-cycling depot.	continued pickup	2006	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress			have a secure storage location; contents are removed by a certified company	continual removal	2005	No End Date (Continuous)
Procurement (non-paper supplies)							
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress			all products are green	continued using green products	2007	No End Date (Continuous)
Building construction, renovation, and leasing							
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	In Development			reuse where possible	posting free "giveaways" from storage yard.	2007	No End Date (Continuous)
Indoor air quality							

Peace River North, SD 60 - 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
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Complete		board policy mandates a scent free workplace		2008	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		all purchasing of materials incorporates this requirement	continued purchasing requirement	2008	No End Date (Continuous)
Commuting to and from home						
Offer staff a compressed work week	Ongoing/In Progress		consideration of 4 /10 hour days	become part of union agreement	2010	No End Date (Continuous)
Provide secure bicycle storage	Ongoing/In Progress		added 10 bicycle racks across the district	bike racks if required.	2008	No End Date (Continuous)