



School District No. 46 (Sunshine Coast)

2009 Carbon Neutral Action Report

Executive Summary

The Board of Education of School District No. 46 (Sunshine Coast) supports and encourages sustainable practices and actions towards carbon neutrality. The school district's values state that:

“Environmental sustainability is key to both responsible citizenship and a healthy future, and we play a fundamental role in advancing it through education, from our schools on out to our local and global communities.”

Planning for reducing greenhouse gases (GHG) emissions from operations occurred at a number of levels and resulted in the following four key actions in preparation for carbon neutrality in 2010:

- Discussion of district-wide activities towards carbon neutrality became a standing item on the agendas of Administrative and Principals' meetings.
- Requirement that all contracts and agreements that the district enters into must adhere to sustainable practices (bus contracts in particular).
- Change to electronic communication to replace paper for meeting agendas and presentations for both staff and the Board of Education.
- Evaluation by trades persons to assess all options with respect to finding the most sustainable and green cost effective energy consumption.

Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2009

Some specific initiatives that School District No. 46 undertook in 2009 with regard to reducing greenhouse gas (GHG) emissions towards carbon neutrality from operations include:

- Lighting upgrades in five schools in 2009/10.
- Upgrades to DDC controls in three schools.
- Installation of multifunction devices (fax, copier, scan) in 50% of schools.
- Installation of default auto sleep functions on computers, monitors and CPUs.
- Required Energy Star rated model computer and appliance renewals.
- Use of 30% post consumer recycled paper for printers and photocopiers.
- Reduced vehicle emissions through carpooling.
- Use of electronic document library for filing documents.

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

Going forward, over the next three years, School District No. 46 (Sunshine Coast) will develop protocols, policy and regulations to support key areas of greenhouse gas reduction. Examples include:

- Establish a Sustainability Committee to support district activities and to support sustainable practices.
- Begin to replace district vehicles with more fuel efficient vehicles, and implement a regular maintenance program to ensure efficient operation.
- Evaluate the effectiveness and efficiency of the fleet and investigate alternatives.
- Enrol in a building energy benchmarking program.
- Evaluate mechanical systems and develop a program to upgrade where necessary.
- Replace all non compliant computers and appliances with Energy Star rated.
- Raise the level of awareness for carbon sustainability through staff and student education and dialogue to inform and encourage sustainable practices and support behaviour change.

Becoming carbon neutral in 2010 is an important step towards SD46's sustainability goals in the following ways:

- It encourages all members of the organization to work on this together to be more successful and unified in our efforts towards carbon neutrality.
- Carbon sustainability practices provide good modeling for students and the wider community.
- Carbon sustainability demonstrates fiscal responsibility by using recycled materials, monitoring and reducing consumables and analyzing and reducing utilization of vehicles.

Some anticipated financial, environmental, and social benefits related to reducing GHG emissions include:

- Social - bringing together various employees and employee groups with students for a common purpose.
- Financial – working toward energy efficiency will result in savings.
- Environmental – expanding school recycling programs, reducing fuel and gas consumption, and monitoring travel will support the initiatives of the activities Sunshine Coast local governments.

School District No. 46 (Sunshine Coast)

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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 <i>Greenhouse Gas Reduction Targets Act</i> .							
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		Evaluation of present vehicles	fuel efficient vehicles will be purchased as fleet is renewed	2009	No End Date (Continuous)	
Perform regular fleet maintenance to improve fuel-efficiency	In Development		Built new mechanics shop bay with hoist for better control of auto maintenance	Set routine Maintenance schedule and reporting	2010	No End Date (Continuous)	
Behaviour change program							
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	In Development			Regulation to be developed from board policy committee	2010	2010	
Encourage carpooling in fleet vehicles	In Development		Group work orders per school to consolidate trades people	continue action	2009	No End Date (Continuous)	
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	10	% of buildings have a real time metering system installed	Pulse Hi and Low atmospheric modulating controls	Evaluate further schools for implementation of controls	2009	No End Date (Continuous)
Owned buildings							
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	In Development		PIR in progress for New school in Gibsons	Adhere to Leed Gold Rating	2010	2012	
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	In Development		Restrict use of R22 refrigerant	Use only R410A refrigerant	2010	No End Date (Continuous)	
Complete energy retrofits on existing, owned buildings	In Development		Evaluation of buildings started in 2009	Conduct district wide energy retrofit review	2009	No End Date (Continuous)	
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	In Development		Preliminary assessment	Initiate consultants assessment for replacement of older rooftop units and boilers	2009	No End Date (Continuous)	
Upgrade lighting systems during retrofits	Ongoing/In Progress	35	% of retrofits (captured above) had lighting systems upgrades	Powersmart program in 5 schools	Continue powersmart in 5 more schools	2009	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	18	% of retrofits (captured above) had control system upgrades or adjustments	Upgrade of DDC Controls in 3 schools	Evaluate and upgrade DDC in remaining schools	2009	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	2	% of retrofits (captured above) had insulation improvements	Changed from single pane to sealed units	Evaluate schools and upgrade	2009	2012
IT power management							
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	90	% of computers have auto-sleep settings applied	All devices are set to default to auto sleep.	Continue to set controls to auto sleep for all new devices	2009	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	50	% reduction in printers, copiers, and/or fax machines since start year indicated	Installation of multi function devices (print, copy, scan) devices in board office, maint. Office, and 5 schools in 2009	Change out remaining machines as leases expire	2009	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	90	% of devices have auto-sleep settings applied	All devices are set to default to auto sleep.	Continue to set controls to auto sleep for all new devices	2009	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	95	% of computers are ENERGY STAR rated	All Apple computers are Energy Star compliant	Continue to purchase Energy Star compliant machines	2009	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	25	% of fridges are ENERGY STAR rated	Three fridges replaced	Energy Star fridges will be purchased as Fridges replaced	2009	No End Date (Continuous)
Behaviour change program							
Help staff reduce personal energy use through "workstation tune-ups"	In Development				Begin workstation tune up program	2010	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	In Development				Develop protocol for electrical device use	2010	2010
Ask staff to close blinds at end of work day to reduce heating/cooling demands	In Development				Develop guidelines and tips for energy savings	2010	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	In Development				Develop guidelines and tips for energy savings	2010	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	In Development				Develop guidelines and tips for energy savings	2010	No End Date (Continuous)
Promote hot water conservation	In Development				Develop guidelines and tips for energy savings	2010	No End Date (Continuous)
Other Stationary Fuel Combustion and Electricity Actions							
Removed Cloth towel dispensers out of Girls and Boys washrooms and replaced with electric hand dryers	Ongoing/In Progress	75	% of cloth towel dispensers replaced with	Completed 75% of schools	Complete remaining 25%	2009	2010
All switch plates labelled with Powersmart Turn off light reminders	Ongoing/In Progress			Initiated program in all Schools	Complete program in all Schools	2008	No End Date (Continuous)
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Complete	100	% of total paper purchased contains 30% recycled content	Contract with supplier to supply recycled paper		2009	No End Date (Continuous)
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	In Development				Develop protocol to set default to double sided upon installation	2010	No End Date (Continuous)
Electronic media in place of paper							
Use electronic document library for filing common documents	Ongoing/In Progress			document library in First Class	Continue to expand this procedure	2009	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			Board, Principal and administration meeting information distributed electronically	Continue to expand this procedure	2009	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Complete			All payroll notifications are electronic		2009	No End Date (Continuous)
Behaviour change program							
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			Initiated program - all presentations distributed electronically, 2009 SD 46 conference materials distributed on thumb drive.	Continue to implement and measure progress	2009	No End Date (Continuous)
Other Paper Supplies Actions							
Paper recycling	In Development			Initiated SD46 evaluation of recycling program	Implement recycling protocols at all SD46 facilities	2009	No End Date (Continuous)

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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 <i>Greenhouse Gas Reduction Targets Act</i> . 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
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		Replacement of toilets with low flush models	Replacement of toilets with low flush models	2008	No End Date (Continuous)
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	In Development		Topdressing of fields to allow for deeper root growth to reduce sprinkling	Work together with Sports assoc. For create funding fo field maintenance	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	In Development		Composting of clean sawdust from woodworking shops	Composting of clean sawdust from woodworking shops, Use of woodchips in garden beds	2009	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress		Collection and proper disposal of used batteries tech equipment and crushed Fluorescant bulbs	Compile Certificates of disposal	2009	No End Date (Continuous)
Procurement (non-paper supplies)						
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	In Development		Incorporate all user groups for a renewed recycling methodology	Set up committees to review process	2010	No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress		Implemented new low VOC and reduced harmful chemical custodial products	To distributed to all schools, Consider Ionization cleaning systems	2009	
Building construction, renovation, and leasing						
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	Ongoing/In Progress		Have established share shed for reusable building materials and furniture	Have established share shed for reusable building materials and furniture	2007	No End Date (Continuous)
Indoor air quality						
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	Ongoing/In Progress		Have posted scent free zone signs through out the schools	Continue to post scent free zone signs through out the schools	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 clear coat and interior latex paints now Low VOC. Restricted use of oil based paints	All clear coat and interior latex paints conrinue to be Low VOC	2009	No End Date (Continuous)