

School District No. 67 (Okanagan Skaha)

2009 Carbon Neutral Action Report

Executive Summary

The operation of School District No. 67 (Okanagan Skaha) results in large quantities of carbon emissions and the District spends approximately \$1.3 million for utilities. The School District supports sustainable initiatives to reduce carbon emissions and, as a result, achieve the benefit of cost savings for all utilities. The District does not have any accounts with BC Hydro, so does not have access to funding for hiring an Energy Manager that is available to most other districts in the province.

Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2009

All of the schools in the District had HVAC upgrades and lighting upgrades in previous years. However, some of the upgrades are older and the technology is becoming outdated. The District began to review a new round of upgrades for facilities to reduce energy costs.

Anti-idling programs were initiated for several elementary schools and for District maintenance vehicles.

A plan was implemented for the centralized shutdown of all School District computers and other electrical devices.

The final year for the Destination Conservation program was completed for all schools in the District.

Operational Changes in 2009

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

Procedures implemented to lower heat point setting to 20C and raise cooling point setting to 25C in all facilities.

Procedures are under development to eliminate the use of plug in electric heaters and microwaves in all school classrooms.

A study is underway to reduce transportation costs in the School District.

The School District is purchasing HVAC equipment that integrates with geothermal for future coordination.

Staff and students are encouraged to car pool, use bicycles, or walk to school wherever possible.

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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 vehicles with more fuel-efficient models	Ongoing/In Progress	0	% of vehicles are fuel- efficient models		Capital funding requested for next buses	2012	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Complete	0	% of vehicles down-sized since start year indicated		Continue process	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	All district vehicles are serviced at regularly scheduled intervals	Continue process	2005	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress	50	% of small maintenance vehicles are fuel-efficient	Replacement vehicles are more fuel efficient.	Continue process	2008	No End Date (Continuous)
Behaviour change program							
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	100	% of current drivers are trained	Annual training provided	Continue process	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			Initiated no idling practice for school district service vehicles	Encourage schools to introduce anti-idling for parking lots	2009	2012
Encourage carpooling in fleet vehicles	Ongoing/In Progress			Transportation assistance parents are encouraged to carpool when driving students to school	Continue process	2008	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress			City buses used on routes for students within walk limits to get to school; secure bike racks provided at all schools	Continue process	2008	No End Date (Continuous)
Other Mobile Fuel Combustion Actions							
Conservation Destination programs in schools to create awareness and conserve energy	Ongoing/In Progress			Implemented in all schools during the 2007-08 school year	Completed in 2010	2007	2010
Established travel reduction goals	Ongoing/In Progress			Reduced travel budgets for administration	Further budget reductions	2009	2011
Adopted a travel policy	In Development			Procedures require minimized travel arrangements	Continue to develop policy	2009	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			Enrolled in 2005; provided data as required throughout 2009	Continue to provide data as required by the Green Up	2005	No End Date (Continuous)
Owned buildings							
Establish energy performance baseline for owned buildings	In Development			Seeking funding. SD67 is not serviced by BC Hydro so does not have access to Utility Manager funding accorded other districts	Press FortisBC for Utility Manager funding.	2010	2011

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Achieve LEED NC Gold certification at a minimum for new construction or major renovations	In Development			Have requested a major capital project, but has not been approved.	Will use LEED standards for major capital projects.	2011	2012
Incorporate integrated design process into new construction or during renovations of owned buildings	Ongoing/In Progress	0	% of buildings built or renovated since start year indicated used the integrated design process	No projects in design at this time.	Will use integrated design process for new projects	2011	2012
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	Ongoing/In Progress			Refrigerant managed and measured.	Continue process.	2009	No End Date (Continuous)
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress	90	% of owned buildings have undergone energy retrofits since start year indicated	Need minor capital funding approval for project.	Project request to be submitted.	2010	2012
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	75	% of retrofits (captured above) had heating, cooling, and ventilation systems upgrades	Remaining HVAC systems were reviewed for replacement	Continuing review for replacement	2006	2012
Upgrade lighting systems during retrofits	Complete	100	% of retrofits (captured above) had lighting systems upgrades	All schools completed		2006	2009
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	100	% of retrofits (captured above) had control system upgrades or adjustments	All retrofitted schools upgraded controls	Minor project requests will be made for 2 small elementary schools that require retrofit.	2010	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Complete	100	% of retrofits (captured above) had insulation improvements			2006	2010
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	70	% of computers shut down automatically outside of regular business hours	Installation of power management software	Continue to implement adding additional devices	2009	2012
Implement server virtualization	Ongoing/In Progress	10	% of servers have been virtualized since start year indicated	Did research and piloted the implementation	Continue to implement	2009	2012
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	90	% of computers have auto-sleep settings applied	Did research and piloted the implementation	Continue to implement	2009	2012
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	10	% reduction in printers, copiers, and/or fax machines since start year indicated	Did research and piloted the implementation	Continue to implement adding additional devices	2009	2012
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	50	% of devices have auto-sleep settings applied	Did research and piloted the implementation	Continue to implement	2009	2012
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	90	% of computers are ENERGY STAR rated	Did research and piloted the implementation	Continue to implement	2009	2012

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Appliances and electronic devices							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress	80	% of fridges are ENERGY STAR rated	New purchases are all energy star rated. Reduced energy consumption.	Continue to implement adding additional devises	2007	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			Did research and piloted the implementation	Continue to implement adding additional devises	2007	2012
Replace desk lamp incandescent bulbs with compact fluorescent (CFL) bulbs or source more efficient desk lamps for future purchases	Complete			T8 fluorescent tubes with electronic ballasts and CFLs in pot lights		2009	2009
Behaviour change program							
Help staff reduce personal energy use through "workstation tune-ups"	Ongoing/In Progress	70	% of current staff have completed a workstation tune-up	Did work station tune-ups	Continue to implement	2009	2012
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress			Sent e-mail to all staff and informed principal	Continue to implement	2009	2012
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			Sent e-mail to all staff and informed principal	Continue to implement	2009	2012
Encourage staff to use air dry setting on dishwashers	Ongoing/In Progress			Sent e-mail to all staff and informed principal	Continue to implement	2009	2012
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress			Direct staff to energy management websites	Continue to implement	2009	2010
Encourage use of stairs instead of elevators	Ongoing/In Progress			Elevator keys provided for wheelchair access only	Continue to implement	2009	2010
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Custodians trained. Occupancy sensors at some locations.	Continue to implement	2008	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress			Direct staff to energy management websites	Continue to implement	2009	2010
Other Stationary Fuel Combustion and Electricity Actions							
Installed motion activated lights	Ongoing/In Progress			Motion activated lights and security cameras as part of capital plan	Continue to implement	2009	2012
Unplug unused equipment	Ongoing/In Progress			Reduce energy consumption	Continue to implement	2008	2012
Vending Machine Energy Misers	Complete			Procurement documents require all vending machines to have motion detectors so power is off when no movement is detected.		2005	2009
Undertaken monitor turn-off challenge	Complete			Remotely shut off from central data centre		2005	2009
Supplies (Paper)							
Paper Type							

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Purchase 30% post-consumer recycled paper	Ongoing/In Progress	10	% of total paper purchased contains 30% recycled content	Converted custodial supplies and monitoring prices and testing performance of bond paper.	Continue to purchase	2006	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	10	% of total paper purchased contains 100% recycled content	Converted custodial supplies and monitoring prices and testing performance of bond paper.	Continue to purchase	2006	No End Date (Continuous)
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	50	% of network printers or photocopiers are set to automatic double-sided	Paper consumption - new printers purchased with double-sided capacity and existing printers settings changed to double-sided.	Continue to purchase	2006	No End Date (Continuous)
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	Complete	100	% of network printers have 'print and hold' settings applied	All settings done through central data centre		2006	No End Date (Continuous)
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development			Server built; some training completed	Implementation	2011	No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress	50	% of electronic documents available through website	Number of on-line documents	Implementation	2011	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress	50	% of materials are available online	Number of on-line documents	Continue to implement	2002	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Complete			Completed switch to electronic pay slips		2008	2009
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	1	% of staff currently have received collaborative software training	Converted home learning to moodle	Continue to implement	2009	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			Trustees shown leadership with laptops at Board meetings. Technology used for video and audio conferencing; implementing SmartBoard technology in schools to replace paper	Continue to implement	2008	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress			Paper consumption - paper and containers available for reuse and recycle; advertise to schools surplus materials for reuse	Continue to implement	2006	No End Date (Continuous)
Other Paper Supplies Actions							
Used laptops and tablets	Ongoing/In Progress			One to one program for schools, principals and special needs; school district provides used laptops to general public	Continue to implement	2006	No End Date (Continuous)
Restructured a process to use less paper	Ongoing/In Progress			Software implemented for document management and work orders	Ongoing process	2006	No End Date (Continuous)
Purchased cradle to cradle goods	Ongoing/In Progress			Bulk order of supplies direct shipped	Ongoing process	2000	No End Date (Continuous)
Encouraged re-use of furniture and equipment	Ongoing/In Progress			Centralized purchasing and inventory allows for reuse of equipment, furniture, computers, etc.	Ongoing process	2000	No End Date (Continuous)

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Paper monitoring program	Complete		Installed software based monitoring program		2006	2009
Electronic book or periodical purchase	Ongoing/In Progress		Purchased electronic periodical subscriptions; purchasing electronic textbooks for math program	Ongoing process	2008	No End Date (Continuous)