



School District 19 (Revelstoke)

2009 Carbon Neutral Action Report

Executive Summary

School District 19 (Revelstoke) is currently reviewing energy consumption at all district facilities to re-establish targets for energy consumption reduction. We have engaged BC Hydro in discussions regarding our PowerSmart Partnership and are working towards an Energy Management Plan. Our school district is engaged in preliminary discussions with engineering firms to complete an energy audit of school district facilities with a focus on lighting upgrades and HVAC upgrades at all facilities (except those currently covered by a Project Agreement that will lead to their replacement). We have signed a Project Agreement with the Ministry of Education for building a new secondary school (LEED Gold certification) to replace our existing secondary school. The existing secondary school will be demolished following completion of the new school. In addition, SD 19 has signed a Project Agreement with the Ministry of Education for building a new elementary school (LEED Gold certification) to consolidate the student populations of two older elementary schools. We have changed our custodial work schedules to accommodate team cleaning of all District facilities to allow for more efficient use of buildings and reduced energy consumption.

Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2009

School District 19 has replaced two older school buses with new buses that are more fuel efficient and which generate fewer emissions.

Operational Changes in 2009

We have changed our approach to cleaning our schools. Custodians now operate in teams so that schools can be cleaned quickly and then shut down for the evening to reduce energy consumption. We have also re-organized the community user groups that use District facilities in order to concentrate these activities and a few sites which in turn enables us to shut down other sites in the evening.

Increased utility costs were noted at two facilities operated on a cost-recovery lease basis (not as instructional facilities). This is receiving scrutiny. With the approval of the 2009/2010 Amended Annual Budget, the school district embarked on a district-wide commitment to reduce energy consumption by 8%. We have met and/or exceeded that commitment in all of the facilities used for instructional purposes.

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

School District 19 is embarked on a project to build 1 new elementary school, which will consolidate the population of 2 older elementary schools. The older schools will be closed and this action, in combination with the construction of the new energy efficient elementary school, will greatly reduce our overall Greenhouse Gas Emissions once the project is complete. Similarly, we are building a new secondary school to replace our current aging structure. The new secondary school will be substantially smaller than the existing old building and will be far more energy efficient as well.

The remainder of our district facilities will be the subject of an energy audit in the coming year which will help us identify areas where further projects could be undertaken to reduce energy consumption and greenhouse gas emissions.

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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	33	% of vehicles are fuel- efficient models	Two older school busesreplaced with new energy efficient models	Not yet determined	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	District vehicles are on a regular maintenance schedule		2009	No End Date (Continuous)
Behaviour change program							
Provide fleet driver training to reduce fuel use	In Development			Support for individual drivers undertaken	Driver inservice for fuel efficient driving planned for 2010	2010	No End Date (Continuous)
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Complete			Policy implemented in 2008		2008	No End Date (Continuous)
Other Mobile Fuel Combustion Actions							
Review of school bus routes to determine opportunities for efficiencies and mileage reductions	In Development				Possible reduction in 1 bus route	2010	2010
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							
Enrol in a building energy benchmarking program (e.g., GREEN UP)	In Development						
Owned buildings							
Establish energy performance baseline for owned buildings	In Development				Currently working with BC Hydro PowerSmart to create an Energy Management Plan	2010	2011
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	In Development			Signed Project Agreement with Ministry of Education for the construction of 2 new schools, both of which will be LEED Gold certified.	Construction of 2 new LEED Gold schools	2010	2012
Incorporate integrated design process into new construction or during renovations of owned buildings	In Development			Signed Project Agreement with Ministry of Education for the construction of 2 new schools, using integrated design approach	Construction of new schools has started	2010	2012
Complete energy retrofits on existing, owned buildings	In Development				Energy audit of 2 elementary schools will be undertaken in 2010	2010	2011
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	80	% of computers shut down automatically outside of regular business hours	All new computers set up with energy management software	Install energy management software on 2 new computer labs	2010	2011
Apply auto-sleep settings on computer monitors and CPUs	Complete	100	% of computers have auto-sleep settings applied	All new computers set up with autosleep function		2009	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	57	% reduction in printers, copiers, and/or fax machines since start year indicated	Fax Machines removed in all elementary schools	Review fax functioning at remaining schools	2009	2011
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Complete	100	% of devices have auto-sleep settings applied	All new equipment set up for autosleep		2009	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	50	% of computers are ENERGY STAR rated	One computer lab replaced with Energy Star rated computers and LCD monitors	1 computer lab will be replaced with Energy Star rated computers and LCD monitors	2009	No End Date (Continuous)
Behaviour change program							
Ask staff to close blinds at end of work day to reduce heating/cooling demands	In Development				Review with custodial staff as part of routine duties	2010	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	In Development				District office staff engaged in this initiative	2010	No End Date (Continuous)
Other Stationary Fuel Combustion and Electricity Actions							
Reorganize work schedules to reduce energy consumption	Complete			Custodial services changed to a team cleaning format to reduce hours per day that district facilities are occupied		2009	No End Date (Continuous)
Supplies (Paper)							

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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
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development			Staff are encouraged to use multi-user software and Elluminate Live sessions where appropriate	Staff are encouraged to use multi-user software and Elluminate Live sessions where appropriate	2009	No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress			Abandoned paper distribution of Board Meeting agendas to staff and parents	Assessing further use of electronic document distribution.	2009	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			Documents that need widespread distribution are posted on District email server conferences and district website.	Increased scrutiny of paper documents for electronic distribution	2009	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress			New financial management software system purchased	New financial management software system to be implemented in 2010. Will implement payroll stub electronic distribution by the end of the school year	2010	No End Date (Continuous)
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	3	% of staff currently have received collaborative software training	Administrators using Microsoft Word mark-up feature for document development	Administrators using Microsoft Word mark-up feature for document development	2009	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			Principals meetings all paperless. Student services meetings primarily paperless	Further encourage to staff to conduct paperless meetings	2009	No End Date (Continuous)
Encourage re-use of scrap paper	In Development			Printers in computer labs all reuse scrap paper where possible	Further encourage staff and students to reuse as part of Green Plan	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							
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	5	% of computers have web-conferencing software installed	Board Office staff usings WebEX online training for new software and other inservice	Anticipated greater use of conferencing software for administrative use with outside organizaitons	2009	No End Date (Continuous)
Make desktop web-cameras available to staff	Ongoing/In Progress	30	% of staff have access to a desktop web-camera	Some use of skype for meetings involving district staff	Additional staff will have access to desktop cameras which will make desktop web-conferencing more viable district-wide	2010	No End Date (Continuous)
Behaviour change program							
Encourage staff to consider virtual attendance/presentation at events where possible	In Development				Encourage staff to use virtual attendance when possible	2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			Staff car pool to meetings wherever possible	Staff car pool to meetings wherever possible	2009	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress	33	% of District staff who travel, travel to school meetings by bicycle	Staff encourage use use alternate transport to meetings	Staff encourage use use alternate transport to meetings	2009	No End Date (Continuous)
Education, Awareness, and Engagement							
Team-building							
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	In Development			New electronic "Green Team" conference established to raise awareness	Creation of Green Teams planned for 2010	2009	No End Date (Continuous)
Staff Professional Development							
Support green professional development (e.g., workshops, conferences, training)	In Development			Partnerships forming with north Columbia Environmental Society, Parks Canada, Screen Smart, Wildsite, etc	Continuation of initial steps to support green professional development	2009	No End Date (Continuous)
Staff awareness/education							
Provide green tips on staff website or in newsletters	Ongoing/In Progress			Green Schools information shared with staff through District online conference	Incorporate greater public awareness on district website and in school newsletters	2009	No End Date (Continuous)
Other Sustainability Actions							
Water conservation							
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				Building 2 new schools, built to LEED Gold standards. Schools will have stormwater management strategies	2010	2012
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	In Development				Building 2 new schools, built to LEED Gold standards. Schools will have stormwater management strategies	2010	2012
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 products recycled throughtout the district	Continue and refine recycling processes	2006	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress			District-wide collection of waste chemicals for safe disposal	Continue and refine recycling processes	2006	No End Date (Continuous)
Procurement (non-paper supplies)							
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	In Development			Custodial supplies switched to Green products where applicable	Continue efforts to find Green alternatives for all custodial supplies	2009	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				Construction of 2 new schools starting in 2010 will be LEED Gold certified, salvage items identified and recycling of materials from demolition will take place	2010	2012
Incorporate lifecycle costing into new construction or renovations	In Development				Construction of 2 new schools starting in 2010 will be LEED Gold certified for lifecycle costing with projects well exceeding the Model National Energy Code	2010	2012
Indoor air quality							

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Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	Ongoing/In Progress		Low VOC paints used by Maintenance Department	Purchase of maintenance materials will be further reviewed	2009	No End Date (Continuous)
Commuting to and from home						
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		Engaging in local initiatives, such as walk to work week	Engaging in local initiatives, such as walk to work week	2009	No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	In Development			Construction of 2 new schools starting in 2010 will meet LEED Gold requirements for this initiative	2010	No End Date (Continuous)
Provide secure bicycle storage	Complete		Bicycle storage available at all sites		2009	No End Date (Continuous)
Modify parking fees or parking availability for staff/students	In Development			New school construction will have reduced on-site parking and greater shared parking with adjacent community facilities	2010	2012