

School District #73 (Kamloops-Thompson) - 2009 Carbon Neutral Action Report

Executive Summary

- School District #73 (Kamloops/Thompson) has been working to reduce greenhouse gas emissions and to reduce utility consumption in general. Annual savings of approximately 5,000,000kwhr of electricity and 10,000GJ of natural gas have been achieved, with resulting utility cost savings of over \$400,000 per year and greenhouse gas reductions of 1,000,000kg of CO₂
- In 2009 the School District completed district wide lighting upgrade program that started in 2004.
- The implementation of the “Thin Client” computers continues and allows for significant electricity savings.

Overviews

- In 2009, 4 elementary schools had lighting retrofits done, and 1 elementary school had a boiler upgrade.
- Bus drivers participated in the NRCAN Smart Driver program.

Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012

- School District #73 (Kamloops/Thompson) will continue with it’s long term plan for energy reduction. We will continue with our controls upgrades for our mechanical systems, exterior lights, and computer systems, and will continue to upgrade mechanical equipment including boilers to further reduce our energy consumption.
- The school district will be closing 5 elementary schools effective July 1, 2010.

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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						
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress		All vehicles are maintained at 5,000km intervals	Continue to maintain vehicles at 5,000km intervals	1990	No End Date (Continuous)
Behaviour change program						
Provide fleet driver training to reduce fuel use	Ongoing/In Progress		Bus drivers are providing training on reducing fuel usage via NRCAN Smart Driver program.	On going training for bus drivers.	2009	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		Bus drivers are providing training on reducing fuel usage via NRCAN Smart Driver program.	On going training for bus drivers and other staff.	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)	In Development			We would like to pilot one school with this type of system if funds become available.	2010	2012
Retrofitting owned buildings						
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress		Completed one boiler retrofit.	Controls Upgrade at one elementary school.	2010	No End Date (Continuous)
Upgrade lighting systems during retrofits	Complete		Our last 4 school lighting upgrades were completed in 2009.		2010	2010
Upgrade/adjust control systems during retrofits	Complete		Completed with boiler retrofit.		2009	No End Date (Continuous)
Install an on-site renewable energy demonstration project	Ongoing/In Progress		We are installing a small photovoltaic system at 2 elementary schools.	Completion of the installation of the 2 photovoltaic systems.	2009	No End Date (Continuous)
IT power management						
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress		Continued installation of DDC controlled power shut off for computer labs in schools. Don't use power management software due to "Thin Clients" and DDC power shut off.	Continued installation of DDC controlled power shut off for computer labs in schools.	2007	No End Date (Continuous)
Implement server virtualization	Ongoing/In Progress		6 servers were virtualized in 2009.	Approximately 6 more servers will be virtualized in 2010.	2008	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress		All new computers have auto sleep settings turned on.	All new computers have auto sleep settings turned on.	2007	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress		3 high schools had all stand alone printers/copiers converted to "pod" printers/copiers.	We no longer purchase stand alone printers for classrooms.	2005	2009
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress		All laser printers and high volume copiers have auto sleep settings enabled.	All new equipment will have auto sleep settings enabled.	2005	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
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress			Through our continued upgrade to "Thin Client" computers, we are reducing power usage as these computers have no hard drive. We have converted 3,500 computers to "Thin Client" machines.	Continued installation of more "Thin Client" computers.	2005	No End Date (Continuous)
Other Stationary Fuel Combustion and Electricity Actions							
Closed 5 Elementary schools after the 2009-2010 school year.	In Development				The School District will be closing 5 elementary schools effective July 1, 2010.	2010	2010
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	3	% of total paper purchased contains 30% recycled content	Purchased 30% post-consumer recycled paper.	Purchase more 30% post-consumer recycled paper.	2009	No End Date (Continuous)
Electronic media in place of paper							
Use electronic document library for filing common documents	Ongoing/In Progress			We installed Zimbra software across school district.	Further utilize Zimbra capabilities to use more electronic filing.	2009	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			Board documents are available online via Filepro and Zimbra software.	Further utilize Zimbra and Filepro capabilities to use more electronic filing.	2009	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress	10	% of staff curently receive electronic pay stubs.	10 % of staff curently receive electronic pay stubs.	Put the remaining 90% of staff on electronic pay stub system.	2009	2010

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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						
Virtual meeting technology						
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	In Development			Start using Conference Me software for meetings.	2009	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Ongoing/In Progress		1 high school had video conferencing equipment installed.	2 high schools to have video conferencing equipment installed.	2005	No End Date (Continuous)
Behaviour change program						
Train staff in web-conferencing	In Development			Start using Conference Me software for meetings.	2009	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress		Our IT staff are trained in the use of the video conferencing system.	Our IT staff will receive further training in the use of the video conferencing system.	2005	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress		Video conference system is used when possible.	Continued use of video conference system.	2005	No End Date (Continuous)
Education, Awareness, and Engagement						
Client/public awareness/education						
Provide education to clients/public about the science of climate change	Ongoing/In Progress		Part of student curriculum	Part of student curriculum	2007	No End Date (Continuous)
Provide education to clients/public about the conservation of water, energy, and raw materials	Ongoing/In Progress		Part of student curriculum	Part of student curriculum	2007	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		Any fixture that is replaced is replaced with a more efficient model.	Any fixture to be replaced will be replaced with a more efficient model.	2003	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	Ongoing/In Progress		Any fixture that is replaced is replaced with a more efficient model.	Any fixture to be replaced will be replaced with a more efficient model.	2003	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 schools have recycling programs in place. E-waste is centrally collected and recycled.	Continue and expand the programs for more materials.	2008	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress		PCB ballasts have been removed via our lighting upgrade program. Asbestos is being removed from sites.	Further asbestos abatement projects will be completed.	1998	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		Continued purchasing green cleaning products.	Continue purchasing green cleaning products.	2004	No End Date (Continuous)
Indoor air quality						
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	Ongoing/In Progress		We only purchase low VOC paint	Continue to purchase low VOC paint	2000	No End Date (Continuous)