

School District #73 (Kamloops-Thompson) - 2010 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. Average 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. Reductions in natural gas usage of 26,00GJ were seen in 2010, with the increased reductions over the average annual savings mainly being due to warmer winter conditions.

Kelvin Stretch, FCMA, CMA
Secretary Treasurer

2010 Greenhouse Gas Emissions

- Greenhouse Gas Emissions by Source for the 2010 Calendar Year (tCO₂e)
 - Mobile Fuel Combustion 2058.07
 - Stationary Fuel Combustion and Electricity 3603.51
 - Paper 184.07

Offsets Applied to Become Carbon Neutral in 2010

- Total offsets purchased: 4259.83. Total offset investment: \$106,495.75.
 - Emissions which do not require offsets: 1585.82

2010 Greenhouse Gas Emissions Reductions Activities

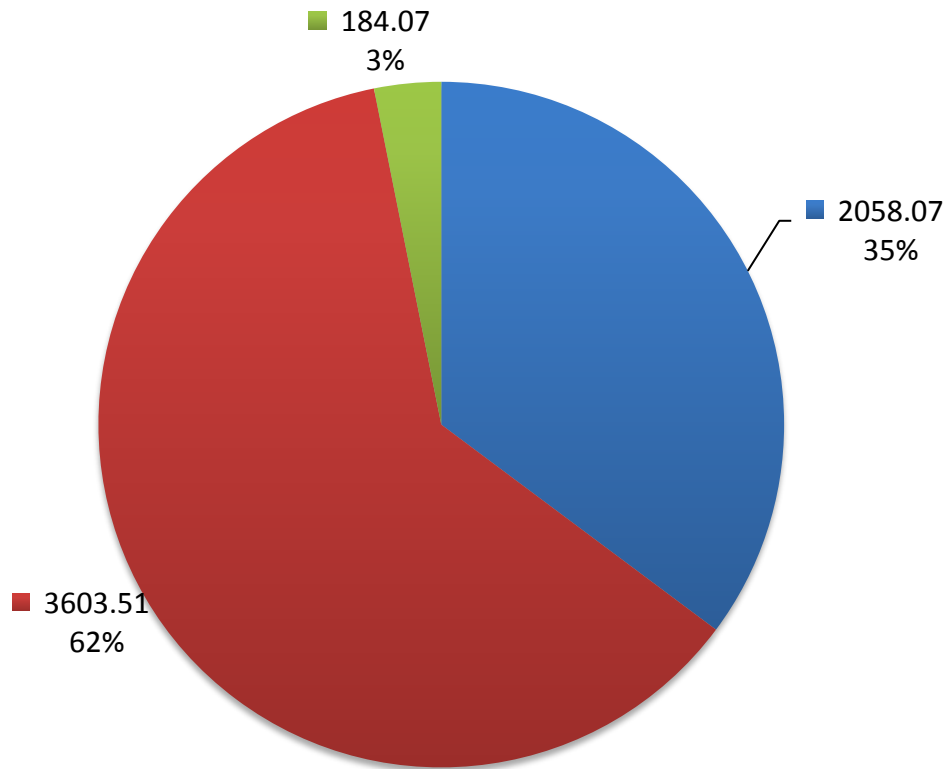
- Replaced 5 buses and 4 vehicles with newer models
- Obtained GPS for entire fleet to track vehicle idle time
- 90% of employees converted to electronic pay system
- The school district closed 5 schools effective June 30, 2010.

Plans to Continue Reducing Greenhouse Gas Emissions 2011 – 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 installing gps in all vehicles and will implement an anti-idling program.

School District #73(Kamloops/Thompson)

Greenhouse Gas Emissions by Source for the 2010 Calendar Year (tCO₂e*)



Total Emissions: 5845.65

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion and Electricity (Buildings)
- Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2010

Total offsets purchased: **4259.83**. Total offset investment: **\$106,495.75**. Emissions which do not require offsets: **1585.82** **

*Tonnes of carbon dioxide equivalent (tCO₂e) is a standard unit of measure in which all types of greenhouse gases are expressed based on their global warming potential relative to carbon dioxide.

** Under the *Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act*, all emissions from the sources listed above must be reported. As outlined in the regulation, some emissions do not require offsets.

School District #73(Kamloops/Thompson) - 2010 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 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	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		Replaced 4 vehicles and 5 buses	Replace vehicles and buses if funding available	2010	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress		All vehicles are maintained at 5,000km intervals	Maintian vehicles at 5,000km intervals	Started before 1995	No End Date (Continuous)
Behaviour change program						
Provide fleet driver training to reduce fuel use	Ongoing/In Progress		Continuous topic of discussion at department meeting	Continuous topic of discussion at department meetings	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		Obtained GPS for vehicles to track idle time	Install GPS units and montior idle time	2011	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 pilot this time of system in one school if funds become available.	2009	2011
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress		None, due to lack of funding.	Dependent of funding.	Started before 1995	No End Date (Continuous)
Retrofitting owned buildings						
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress		None, due to lack of funding	Dependent on funding	Started before 1995	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress		Retrofitted 2 DDC systems in 2010	Retrofit more DDC systems , dependent of funding	Started before 1995	No End Date (Continuous)
Install an on-site renewable energy demonstration project	Ongoing/In Progress		Began installation of 2 @ 3kW solar systems	Complete the installs of the 2 solar systems	2009	2011
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 school. Don't use power management software due to "Thin Client" computers 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 virtualized in 2010	4 servers will be virtualized in 2011	2008	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress		All new computers have auto sleep settings enabled.	All new computers have auto sleep settings enabled.	2007	No End Date (Continuous)
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)

School District #73(Kamloops/Thompson) - 2010 Carbon Neutral Action Report

Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	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. 1,500 computers were changed to "Thin Client" machines in 2010.	Continued installation of "Thin Client" computers.	2005	No End Date (Continuous)
Other Stationary Fuel Combustion and Electricity Actions							
Closed 5 schools for the 2010-2011 school year	Completed in 2010			Closed 5 elementary schools effective June 30, 2010.		2010	2010
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	7	% 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			Increased usage of Zimbra software capabilities	Further utilize Zimbra software capabilities	2009	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			Increased usage of Zimbra software capabilities	Further utilize Zimbra software capabilities	2009	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress			90% of employees on electronic pay system	Convert final 10% of employees to electronic pay system.	2009	2011

School District #73(Kamloops/Thompson) - 2010 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 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	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	In Development			Continued use and expansion of video conference software	2005	No End Date (Continuous)
Behaviour change program						
Train staff in web-conferencing	In Development			Start using Conference Me software	2009	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress		All IT staff are trained in the use of video conferencing	Ongoing training for video conferencing	2005	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress		Video conference system is used where possible	Continued use of video conference system	2005	No End Date (Continuous)
Education, Awareness, and Engagement						
Team-building						
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	In Development			Some schools have "green teams"	2003	No End Date (Continuous)
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. E-waste is centrally collected and recycled.	Continue and expand the programs for more materials.	2008	No End Date (Continuous)

School District #73(Kamloops/Thompson) - 2010 Carbon Neutral Action Report

Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress		Asbestos is being removed from sites as required.	Continue to remove hazardous materials as required.	1998	No End Date (Continuous)
Procurement (non-paper supplies)						
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress		Continued purchase of green custodial cleaning products	Continue to purchase green custodial 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)