



## **SCHOOL DISTRICT NO. 87**

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# **School District No. 87 (Stikine) – 2011 Carbon Neutral Action Report**

## **Executive Summary**

School District No. 87 (Stikine) has been contributing towards carbon neutrality for a number of years by actively investing in equipment and lighting retrofits, as well as working with employees and building systems to improve overall systems performance and reduce energy consumption. Over the past few years we have completed heating and lighting energy improvements through a partnership with BC Hydro in the Power Smart program. We have upgraded 3 schools and are working towards improving our facilities mechanical and control systems which will provide for more economical operations and more comfortable facilities for occupants. We will be working with our employees and students to minimize waste in the schools. We will continue with our vehicle purchase and preventive maintenance programs including carpooling and our anti-idling program. We are also planning to move toward using sustainable products for cleaning and building maintenance.

## **2011 Greenhouse Gas Emissions**

The total 2011 greenhouse gas (GHG) emissions from all sources covered by the *Greenhouse Gas Reduction Targets Act* was 468.99 tCO<sub>2</sub>e (as reported in SMARTTool).

## **Offsets Applied to Become Carbon Neutral in 2011**

Total emission offsets in the amount of \$13,131.72 have been applied to become carbon neutral for 2011.

## **Emissions Reduction Activities**

### **Actions Taken to Reduce Greenhouse Gas Emissions in 2011**

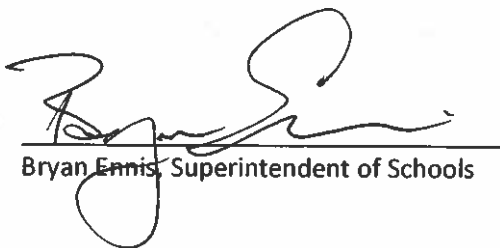
During 2011 we continued implementing several measures started in 2008-2010. These measures include the areas of mobile fuel combustion, stationary fuel combustion, supplies, travel, paperless meetings and sustainable actions. We improved on our already good fleet maintenance program and continued to require car pooling of all staff destined for the same location. Lights were continually being turned off in unused rooms, equipment was being unplugged when not in use and we completed replacing "Energy Star" appliances. We increased the use of 100% recycled paper used throughout the district. The district continues to reuse furniture and equipment when it is practical to do so. We have continued and increased the use of Live Meetings in the district. The School Board has continued to hold paperless meetings and meetings by electronic means. We have instituted sustainable measures of low flow taps & showers, not running dishwashers until they are full, using glass plates, cups and glasses and instituting a recycling program in the district. We completed a full district lighting retrofit to change all of our lights to energy efficient bulbs utilizing BC Hydro and their Power Smart Program.

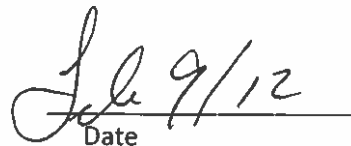
### **Operational Changes in 2011**

The district upgraded the HVAC system in one school in 2011 which impacted its GHG emissions profile in 2011 and future years.

### **Plans to Continue Reducing Greenhouse Gas Emissions 2012 – 2014**

The district will be replacing the boilers in the Administration building over the next few years. This will complete our district wide heating system upgrade including a DDC system at each site which will improve the emissions by way of the heating system plus the reduction of travel to each site. The district will be installing virtual computer systems in each school which will all but eliminate the travel required to service or repair these computers. The district will be continually reviewing its' operations with a goal of reducing its' carbon output. We will also be continuing to educate our employees and students so that they will make carbon output reduction part of their life style.

  
Bryan Ennis, Superintendent of Schools

  
Date

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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 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
<b>Mobile Fuel Combustion (Fleet and other mobile equipment)</b>							
<b>Vehicle fuel efficiency</b>							
Replace vehicles with more fuel-efficient models	Ongoing/In Progress	86	% of vehicles are fuel- efficient models	No Vehicles Replaced in 2011	Replace a vehicle with a dual fuel vehicle as there are no hybrid vehicles available for the terrain in this district.	2006	No End Date (Continuous)
Perform regular fleet maintenance specifically to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	All vehicles are required to have regular servicing done every 5000 km using synthetic fluids	Continue servicing every 5,000 km with synthetic fluids.	2011	No End Date (Continuous)
<b>Behaviour change program</b>							
Provide fleet driver training to reduce fuel use	In Development	12	% of current drivers are trained	Looking at instituting training in the district but the cost is extreme due to the distances of travel to get the training or have someone come into the district	Review the costs in light of budget cuts.	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			Raised awareness of anti idling vehicles though this initiative is less successful in winter due to extremely cold weather and potential of freeze up.	Continue promoting and ensuring the guidelines are followed	2008	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress	100	All employees are required to car pool when they are travelling to the same site.	All employees are required to car pool when they are travelling to the same site or they do not receive travel costs from the district	Continue promoting and ensuring the guidelines are followed	2009	No End Date (Continuous)
<b>Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)</b>							
<b>Retrofitting owned buildings</b>							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	100	% of retrofits since start year indicated had heating, cooling, and ventilation systems upgrades	We replaced 1 school's heating system in 2011	Reviewing the replacement of the heating system in the Administration office in the near future	2011	2011
Upgrade/adjust control systems during retrofits	Completed in 2011	100	% of retrofits since start year indicated had control system upgrades or adjustments	DDC set up in Tahltan school during 2011		2007	2011
<b>IT power management</b>							
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	Using scheduled tasks to run a script that shuts down the computers nightly on all servers except 1 school.	Complete the one school to implement	2008	2012
Implement server virtualization	In Development	0	% of servers have been virtualized since start year indicated		To install virtual systems in all schools	2012	2013
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	The photocopiers at 3 sites are setup as network printers and are used as such.	Review the balance of the photocopiers in the district and replace them with network copiers when the budget allows for such expense.	2007	2013

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Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	50	% of computers are ENERGY STAR rated	Some computers were replaced in 2011 to Energy Star rated.	When budget allows we will be replacing all computers with Energy Star models. If a computer is purchased it is mandatory that it is an Energy Star model.	2007	No End Date (Continuous)
<b>Behaviour change program</b>							
Help staff reduce personal energy use through "workstation tune-ups"	Ongoing/In Progress	80	% of current staff have completed a workstation tune-up	Staff are doing this on an ongoing basis as time permits.	Staff will continue ongoing "workstation tune-ups"	2009	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Continued to educate and request staff to turn off all lights when they leave their classrooms.	We will be purchasing stickers for all light switches.	2008	2012
<b>Supplies (Paper)</b>							
<b>Paper Type</b>							
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	80	% of total paper purchased contains 100% recycled content	Approximately 75% of the district has started purchasing 100% recycled paper	Promote the purchase of 100% recycled paper in the district	2007	2012
<b>Printer/document settings</b>							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	75	% of network printers or photocopiers are set to automatic double-sided	We are promoting the use of double sided paper at all sites.	Continue promoting the use of double sided paper at all sites.	2007	No End Date (Continuous)
Reduce default margin size in standard document templates (e.g., letters, briefing notes, forms, etc.)	Ongoing/In Progress			We have continued to promote the reduction in the size of margins on all documents.	Continue to promote the reduction in the size of margins on all documents.	2009	No End Date (Continuous)
<b>Electronic media in place of paper</b>							
Post materials online that were previously printed	Ongoing/In Progress			We are posting more documents on our website that were previously printed (e.g. financial statements, budgets, policies, administrative procedures, trustee election material, etc.).	Continue to review all documents that could be posted to our website or central email server.	2008	No End Date (Continuous)

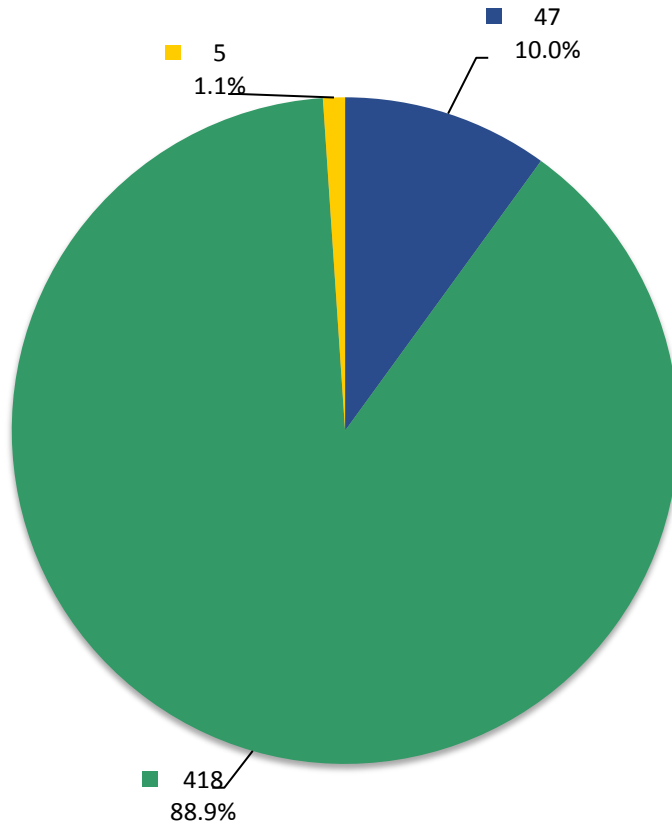
## School District No. 87 (Stikine) - 2011 Carbon Neutral Action Report

### 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 12/31/11)	Performance to Date (as of 12/31/11)	Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
<b>Business Travel</b>						
<b>Virtual meeting technology</b>						
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	75 % of computers have web-conferencing software installed	Approximately 75% of our computers in the district have Elluminate and Webex installed.	As we purchase new computers the software will be installed.	2009	No End Date (Continuous)
<b>Behaviour change program</b>						
Train staff in web-conferencing	Ongoing/In Progress	50 % of staff are trained web-conferencing	Approximately 50% of our staff have training in web-conferencing but we have staff at every site that is trained to assist other staff.	Continue training more staff on web-conferencing	2008	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress		We have encouraged staff to take training by way of web access. Staff are starting to use this technology.	Continue to encourage staff to take training by way of web access.	2009	No End Date (Continuous)
<b>Education, Awareness, and Engagement</b>						
<b>Staff awareness/education</b>						
Provide education to staff about the science of climate change	In Development			Looking at a process to do this as we are a very widely spread out small district.	2010	No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	In Development			Looking at a process to do this as we are a very widely spread out small district.	2010	No End Date (Continuous)
Provide green tips on staff website or in newsletters	In Development		In the process of looking at including a section on the website.	To include on the website.	2010	No End Date (Continuous)
Provide sustainability education during new staff orientation	In Development		We are looking at including as part of our new staff orientation process.	We are looking at including as part of our new staff orientation process.	2011	No End Date (Continuous)
<b>Client/public awareness/education</b>						
Provide green tips on client/public website or in newsletters	In Development		In the process of looking at including a section on the website.	To include on the website.	2011	No End Date (Continuous)

**School District 87 - Stikine  
Greenhouse Gas Emissions by Source  
for the 2011 Calendar Year (tCO<sub>2</sub>e\*)**



**Total Emissions: 470**

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion (Building Heating and Generators) and Electricity
- Supplies (Paper)

**Offsets Applied to Become Carbon Neutral in 2011 (Generated May 18, 2012 12:44 PM)**

Total offsets required: **469**. Total offset investment: **\$11,725**. Emissions which do not require offsets: **1** \*\*

\*Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) 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.