



## School District No. 52 (Prince Rupert)

### 2010 Carbon Neutral Action Report

#### Executive Summary

School District No. 52 is a district of approximately 2,200 students. Between January 2010 and December 2010 the district educated its students in six elementary schools, two secondary schools, one aboriginal village school and one distributed learning storefront school. The district is supported by a maintenance building, an aboriginal education administration building and a board office. Six trustees at large and one rural trustee represent the communities of School District No. 52. Of its 15 sites, 13 are owned (2 of these are currently closed), 1 is band owned and 1 is leased. During 2010 the district made the decision to close an additional school in 2011. The average age of the owned buildings is over 40 years.

With funding being scarce and aging facilities, the District looks to carbon neutral projects that deliver savings directly or indirectly by reducing maintenance on its facilities and vehicles. 2010 saw the first full year's operation of the new boilers in an elementary school, and the approval of capital funding to replace the boilers in the high school. Plans are also underway to replace the boiler in another elementary school in 2011. The District will look to the future to change culture and to provide leadership to students, staff and the community.

Submitted by:

A handwritten signature in black ink, appearing to read "Cam McIntyre", is written over a horizontal line.

Cam McIntyre, CA  
Secretary-Treasurer

## Overviews

### 2010 Greenhouse Gas Emissions

Tonnes of carbon dioxide equivalent emitted in 2010 consisted of:

Mobile Fuel Combustion	72.04
Stationary Fuel Combustion and Electricity	887.25
Supplies	50.26
Total	1009.55

### Offsets Applied to Become Carbon Neutral in 2010

Offsets for 989.19 Tonnes of carbon dioxide equivalent were purchased.

Certain bussing services for School District No. 52 are provided by a private contractor. These emissions did not require offsets. Emissions which did not require offsets were 20.36 Tonnes of carbon dioxide.

### Actions Taken to Reduce Greenhouse Gas Emissions in 2010

School District No. 52's key actions taken during 2010 toward carbon neutrality were the full year impact of a boiler upgrade in 2009, a vehicle replacement, the decommissioning of a 1982 vehicle, and the decision was made to close a school in 2011. School District No. 52's efforts are aimed at retrofitting aging buildings with higher efficiency equipment and consideration of replacement or closure of buildings. For example the district is working diligently to take advantage of fossil fuel reduction projects like lighting retrofits and HVAC system upgrades, including boilers – particularly where there is sharing of project funding, a reasonable payback period or straight savings to the district.

### Plans to Continue Reducing Greenhouse Gas Emissions in 2011 – 2013

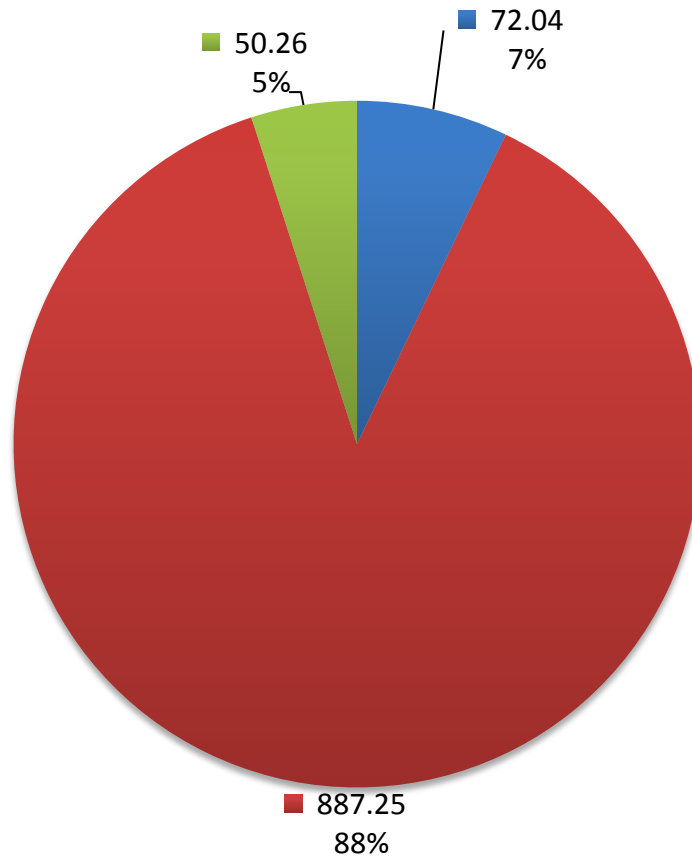
School District No. 52 will close an additional elementary school at the end of the school year in June 2011. This will reduce the district's greenhouse gas emissions. The district is also considering the closure of an additional elementary school in 2012.

Boilers in the secondary school and in one of the elementary schools will be replaced with much more fuel efficient boilers in the summer of 2011. Energy efficient lighting will be installed in the wood shop of the middle school in the summer of 2011. Reductions in greenhouse gas emissions from these projects will commence in September 2011, with the first full year's impact in 2012.

The district is also awaiting approval to commence a building envelope project at the secondary school in 2011. Upon completion, improved insulation and windows are expected to reduce greenhouse gas emissions for this building.

# School District No. 52 (Prince Rupert)

## Greenhouse Gas Emissions by Source for the 2010 Calendar Year (tCO<sub>2</sub>e\*)



**Total Emissions: 1009.55**

- 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: **989.19**. Total offset investment: **\$24,729.75**. Emissions which do not require offsets: **20.36** \*\*

\*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.

## School District No. 52 (Prince Rupert) - 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
<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		Decommissioned 1982 GMC Grumman Van.	No vehicle changes planned.	2008	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress		Replaced 2003 Sunfire car with a 4 cylinder Dodge Calibre hatchback.	No vehicle changes planned.	2008	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress		None.	No vehicle changes planned.	2008	No End Date (Continuous)
<b>Behaviour change program</b>						
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	In Development		Plans still in development; Superintendent has attended meetings of the City's "Green Task Force."	Continued attendance at the City's "Green Task Force" to promote an anti-idling policy.	2009	No End Date (Continuous)
<b>Other Mobile Fuel Combustion Actions</b>						
Reduce distance required to be driven by staff to complete their duties.	Ongoing/In Progress		District is moving to the closure of a third school at the end of the 2010/11 school year.	Upon closure of the school, travel time by maintenance crews will be reduced. Consolidation of Board Office functions in one location is being considered to further reduce travel between sites.	2008	No End Date (Continuous)
<b>Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)</b>						
<b>Planning/management</b>						
Reduce office space (square meters) per employee	Ongoing/In Progress		Planning towards the closure of a third elementary school in June 2011 is underway.	Third school will be closed June 2011. Consolidation of Board offices into one building is being considered.	2008	2011
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress		Building Envelope Project on the secondary school is still awaiting full provincial funding.	Building envelope program at one site to upgrade/repair/replace bay windows with energy saving glazing, vapour barrier and repair roof leaks	2009	No End Date (Continuous)
<b>Retrofitting owned buildings</b>						
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress		Boiler upgrades at two buildings put out to tenders (including hot water system in one of the two schools).	Completion of boiler upgrade projects at two buildings (including hot water system in one of the two schools).	2009	2011
Upgrade lighting systems during retrofits	Ongoing/In Progress		None.	Will install motion-activated lights in administration buildings (three sites). Building Envelope project at one site will upgrade exterior lighting. Will upgrade lighting in wood shop at the middle school. Other Power Smart projects will be developed.	2009	2012
Upgrade/adjust control systems during retrofits	Ongoing/In Progress		Boiler upgrades at two buildings put out to tender.	Completion of boiler upgrade projects at two buildings; control systems will be upgraded as part of these projects.	2008	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress		This will occur during the Building Envelope project noted above.	Will be implemented for future retrofits.	2009	No End Date (Continuous)
<b>IT power management</b>						

## School District No. 52 (Prince Rupert) - 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
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	79	% of computers shut down automatically outside of regular business hours	We have approximately 700 computers, 550 of which have a standard power policy applied, but not enforced.	We will enforce the policy on all computers where this is practical.	2009	2011
Apply auto-sleep settings on computer monitors and CPUs	Completed in 2010	100	% of computers have auto-sleep settings applied	All computers have monitors set to sleep with the exception of the security camera monitoring systems		2009	2010
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	15	% reduction in printers, copiers, and/or fax machines since start year indicated	Moved to prevent purchase of stand-alone single workstation connected printers. Swapping stand-alone ink-jets for workgroup laser printers.	Continue to retire stand-alone printers, move everyone to network printers and multifunction machines.	2009	2011
Replace computers with ENERGY STAR models during regular computer upgrades	Completed in 2010	100	% of computers are ENERGY STAR rated	Computer minimum standard at SD52 is now Intel Core 2 Duo, all energy star, and where affordable EPEAT as well.		2009	2010
<b>Appliances and electronic devices</b>							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress			None.	As replacement requires.	2008	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			None.	As replacement requires.	2008	No End Date (Continuous)
<b>Behaviour change program</b>							
Help staff reduce personal energy use through "workstation tune-ups"	Ongoing/In Progress	79	% of current staff have completed a workstation tune-up	All computers attached to SD52 Net are now fully managed. We still have another 75 machines to connect to SD52 Net.	Connect the remainder to SD52 Net. Deploy Systems Center Configuration Manager.	2010	2011
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Already implemented in some schools.	Roll out program to all district buildings in 2011	2008	2011
<b>Supplies (Paper)</b>							
<b>Printer/document settings</b>							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	7	% of network printers or photocopiers are set to automatic double-sided	Changed 5 printers to force to double sided printing without the ability to over-ride at the driver level.	Will evaluate if this is the best way to continue. May consider duplicate print queues, one which is forced to print double sided (available to anyone) and one which has choice (needs permission)	2010	2011
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	Completed in 2010	100	% of network printers have 'print and hold' settings applied	All printers/copiers that have this capability it is now turned on and enabled at the driver level. This only accounts for 15 printers district wide.	Push for more multifunction devices that have this capability to remove workgroup laser printers.	2010	No End Date (Continuous)
<b>Electronic media in place of paper</b>							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	95	% of staff workstations with software installed	Most workstations have Office 2007 or Office 2010. All users (including students and staff) have SD52 Net accounts which gives them access to SharePoint 2010 sites.	Connect all remaining computers to SD52 Net to ease single sign on access to SharePoint.	2010	2011
Use electronic document library for filing common documents	Ongoing/In Progress			All HR, Board Meeting Minutes, AP documentation now stored electronically in LaserFiche. All IT documentation stored electronically.	IT Documentation is moving to SharePoint.	2010	2011
Post materials online that were previously printed	Ongoing/In Progress			We are still printing a lot of materials, but almost all is now also being distributed electronically.	Complete upgrade of web site to make online documents easier to find.	2008	No End Date (Continuous)

## School District No. 52 (Prince Rupert) - 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
Switch to an electronic payroll notification system in place of paper pay stubs	Completed in 2010			All payroll notifications are now delivered by email.		2008	2011
<b>Behaviour change program</b>							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	2	% of staff currently have received collaborative software training	Minimal training of Information Technology staff to date, and some small groups.	Small workshops, in-service.	2010	2011
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			Material from public consultation meetings is provided online.	Web site upgrade is in progress; will seek to increase material provided onlin through the new web site.	2008	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress			Receipts processed through accounts payable are taped to reused scrap paper for scanning into Laser Fiche.	Provide further uses for scrap paper.	2008	No End Date (Continuous)

## School District No. 52 (Prince Rupert) - 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
<b>Business Travel</b>							
<b>Virtual meeting technology</b>							
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	100	% of computers have web-conferencing software installed	Staff continue to participate in Ministry on-line training for SMARTool and VFA. Software vendor (SDS) has also provides on-line training. SD52 now hosts our own video conferencing system Big Blue Button ( <a href="http://bbb.sd52.bc.ca">http://bbb.sd52.bc.ca</a> ).	Continued use of Ministry and vendor online training opportunities. Will evaluate Microsoft Lync Server 2010 this year.	2009	No End Date (Continuous)
Make desktop web-cameras available to staff	Ongoing/In Progress	15	% of staff have access to a desktop web-camera	All laptops purchased were purchased with web cameras.	Continue down this path. Consider monitors with integrated web-cameras based upon additional cost considerations.	2010	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	In Development			None.	Under consideration; currently use of telephone meets district's needs.	2010	No End Date (Continuous)
<b>Behaviour change program</b>							
Train staff in web-conferencing	Ongoing/In Progress	5	% of staff are trained web-conferencing	More and more training was only available via web conferencing this year. SDS, L4U, BCeSIS, Ministry of Education, etc	Train as demand increases.	2009	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Completed in 2010	100	% of staff are trained in video-conferencing or have access to technical support	All staff have access to the Information Technology department, which includes a Full Time District Technology Resource Teacher	Continue training.	2010	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			Use of "webinars" and on-line training is encouraged.	Continued use of "webinars" and on-line training.	2008	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress			Small size of community allows many staff to walk to work. Participated in "bike to work week" in May 2010.	Continued promotion of walking and biking.	2008	No End Date (Continuous)
<b>Education, Awareness, and Engagement</b>							
<b>Team-building</b>							
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress			"Green Games" participant at one site. 30% of schools participated in "Lights Out Canada".	Raise awareness at all sites through incentives, contests and policy/procedure. 50% of schools plan to participate in "Lights Out Canada" in 2011.	2009	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	In Development				Raise awareness at all sites through incentives, contests and policy/procedure.	2010	No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	In Development				Raise awareness at all sites through incentives, contests and policy/procedure. One secondary school turned out lights for 30 minutes on the Friday prior to "Earth Day."	2010	No End Date (Continuous)
<b>Awards/Recognition</b>							
Establish a sustainability/green awards or recognition program	In Development				Raise awareness at all sites through incentives, contests and policy/procedure.	2010	No End Date (Continuous)
<b>Staff Professional Development</b>							

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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
Support green professional development (e.g., workshops, conferences, training)	In Development			Raise awareness at all sites through incentives, contests and policy/procedure. Ask teacher professional development committee to consider green courses.	2010	No End Date (Continuous)
<b>Staff awareness/education</b>						
Provide education to staff about the science of climate change	In Development			Raise awareness at all sites through incentives, contests and policy/procedure.	2010	No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	In Development			Raise awareness at all sites through incentives, contests and policy/procedure.	2010	No End Date (Continuous)
Provide green tips on staff website or in newsletters	In Development			Raise awareness at all sites through incentives, contests and policy/procedure.	2010	No End Date (Continuous)
<b>Client/public awareness/education</b>						
Provide green tips on client/public website or in newsletters	In Development			Superintendent implementing a newsletter in 2011; green tips will be included.	2011	No End Date (Continuous)
<b>Other Sustainability Actions</b>						
<b>Water conservation</b>						
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Ongoing/In Progress		Replaced toilets with low flush toilets and faucets with metered faucets as part of regular maintenance as required	Replace toilets with low flush toilets and faucets with metered faucets as part of regular maintenance as required	2008	No End Date (Continuous)
<b>Waste reduction/diversion</b>						
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	Ongoing/In Progress		Recycling of paper, cardboard and drink containers at all facilities.	In 2011, review other materials that could be recycled.	2008	No End Date (Continuous)
<b>Procurement (non-paper supplies)</b>						
Establish green standards for goods that are replaced infrequently and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)	In Development			Comparing carbon impact of books with the carbon impact of electronic readers.	2011	No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress		Custodial Foreman uses green where possible when centrally ordering custodial products	Custodial Foreman to use green where possible when centralized ordering of custodial products	2008	No End Date (Continuous)
<b>Building construction, renovation, and leasing</b>						
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	In Development			Potential new middle school as a result of long range facilities plan	2010	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	In Development			Potential new middle school as a result of long range facilities plan	2010	No End Date (Continuous)
<b>Indoor air quality</b>						
Incorporate low volatile organic compounds (VOCs) standards into procurement policy for products such as paints, carpets, and furniture	Ongoing/In Progress		Most painting is done with water-based paints. Carpet is no longer used for flooring replacements.	Consideration of a formal policy will be made in 2011.	2008	No End Date (Continuous)
<b>Commuting to and from home</b>						



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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
Encourage commuting by foot, bicycle, carpool or public transit	Ongoing/In Progress		Small size of community allows many staff to walk to work. Participated in "bike to work week" in May 2010.	Continued promotion of walking and biking.	2008	No End Date (Continuous)
Provide secure bicycle storage	Ongoing/In Progress		Most facilities have bicycle racks.	Continued maintenance of bicycle racks.	2008	No End Date (Continuous)
<b>Other Sustainability Actions</b>						
Encouraged re-use of furniture and equipment	Ongoing/In Progress		Made supplies, furniture and equipment from two closed schools available to other schools, community organizations and public at large. Began process in 2008 and continues as buildings are emptied.	Following further school closure in 2011, used equipment and furniture will be reused in schools or made available to others in the community.	2008	2011
Reduce/replace bottled water with filtered or refrigerated water.	Ongoing/In Progress		Eliminated delivery of bottled water to administration office and replaced with filters on fixed plumbing to use regular tap water for drinking	Review water supply in other buildings.	2008	No End Date (Continuous)
Reduce distance driven by parents to bring children to school.	In Development			School closure will result in the French Immersion program moving to a more central location; this will result in less travel for parents driving students to the program and picking them up.	2011	No End Date (Continuous)