



School District No. 52 (Prince Rupert)

2011 Carbon Neutral Action Report

Executive Summary

School District No. 52 is a district of approximately 2,200 students. In January 2011 the district educated its students in six elementary schools, two secondary schools, one aboriginal village school and one distributed learning storefront school. In August 2011 one of the elementary schools was closed, and in September 2011 one of the secondary schools was converted to a middle 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 (3 of these are currently closed), 1 is band owned and 1 is leased. 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. 2011 saw the installation of the new boilers in an elementary school and in the high school. Work commenced on a building envelope project at the high school which will result in significantly improved insulation values for the building. 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 blue ink, appearing to read "Cam McIntyre", is written over a horizontal line.

Cam McIntyre, CA
Secretary-Treasurer

Overviews

2011 Greenhouse Gas Emissions

Tonnes of carbon dioxide equivalent emitted in 2011 and 2010 consisted of:

Source of Emission	2011	2010
Mobile Fuel Combustion	73.84	72.85
Stationary Fuel Combustion	895.28	889.8
Purchased Energy	60.10	n/a
Supplies	34.24	50.26
Total	1,063.45	1,012.91

Offsets Applied to Become Carbon Neutral in 2011

Offsets for 1,042.31 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 21.14 Tonnes of carbon dioxide.

Actions Taken to Reduce Greenhouse Gas Emissions in 2011

School District No. 52's key actions taken during 2011 toward carbon neutrality were the boiler upgrades in two schools, commencement of the building envelope project at the high school, and closure of a school in August 2011. Energy efficient lighting was installed in the wood shop of the middle school in the summer of 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 2012 – 2014

School District No. 52 will close an older elementary school at the end of the school year in June 2012, and move the school into a smaller leased space. This will reduce the district's greenhouse gas emissions.

The full-year impact of the replacement of boilers in the secondary school and in one of the elementary schools will be realized in 2012.

Completion of the building envelope project at the secondary school is expected in October 2012. Upon completion, the improved insulation and windows are expected to reduce greenhouse gas emissions for this building.

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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 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	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	70	% of vehicles are fuel- efficient models	None.	Regular turnover of vehicles.	2008	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress			None.	Regular turnover of vehicles.	2008	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress	66	% of small maintenance vehicles are fuel-efficient	None.	Regular turnover of vehicles.	2008	No End Date (Continuous)
Behaviour change program							
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	In Development				Review of anti-idling policies in other school distrits	2009	No End Date (Continuous)
Other Mobile Fuel Combustion Actions							
Reduce distance required to be driven by staff to complete their duties.	Ongoing/In Progress			School closure in 2011 has reduced travel time for maintenance crews and itinerant specialists. Assignment of supervision duties during teacher strike tried to minimize travel distances.	Consider consolidation of board office function into one building.	2008	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							
Reduce office space (square meters) per employee	Ongoing/In Progress			Third school was closed June 2011.	Fourth school to be closed June 2012, replaced with smaller leased space. Consolidation of Board offices into one building is being considered.	2008	2013
Owned buildings							
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	In Development				Request to Ministry for new middle school. New school would be built to LEED standards.	2011	2014
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress			Building Envelope Project underway at CHSS.	Complete Building Envelope Project at CHSS. Will result in a significant increase in effective insulation value.	2009	2012
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress			Completion of boiler replacement in Roosevelt, and boiler/hot water system replacement in CHSS.	Planned consolidation of Board office may result in energy upgrades.	2009	2013
Upgrade lighting systems during retrofits	Ongoing/In Progress			PRMS Wood Shop lighting upgraded.	Outdoor lights at CHSS upgraded as part of BEP.	2009	2012
Upgrade/adjust control systems during retrofits	Ongoing/In Progress			Roosevelt and CHSS controls upgraded during boiler replacement projects.	None.	2008	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress			Underway as part of CHSS BEP.	Complete during BEP at CHSS.	2009	No End Date (Continuous)

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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
IT power management							
Install power management software which shuts down computers outside of regular business hours	Completed in 2011	100	% of computers shut down automatically outside of regular business hours	All computers are now attached to SD52 Net and fully managed.		2008	2011
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	20	% reduction in printers, copiers, and/or fax machines since start year indicated	Encouraged use of network print devices when stand-alone printers need replacement.	Encourage use of network print devices when stand-alone printers need replacement.	2008	No End Date (Continuous)
Appliances and electronic devices							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress			None in 2011.	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			CHSS science and life skills classroom dishwashers (2).	As replacement requires.	2008	No End Date (Continuous)
Behaviour change program							
Help staff reduce personal energy use through "workstation tune-ups"	Completed in 2011	100	% of current staff have completed a workstation tune-up	All computers are now attached to SD52 Net and fully managed.		2008	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 2012.	2008	2012
Supplies (Paper)							
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	20	% of network printers or photocopiers are set to automatic double-sided	As new printers are brought online, default network drivers are set to duplex, however end user can still over-ride.	Will consider moving all printers to default to double sided printing.	2009	No End Date (Continuous)
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	Ongoing/In Progress	20	% of network printers have 'print and hold' settings applied	100% of our devices that have this capability have their mailboxes enabled. This is mostly used for confidential printing today.	Encourage broader use of print and hold settings.	2009	No End Date (Continuous)
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Completed in 2011			All computers now connected to SD52 Net which has enabled access to SharePoint.		2010	2011
Use electronic document library for filing common documents	Ongoing/In Progress			Use of electronic filing for specified documents continues.	Look at implementing a broader records management system.	2009	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			Material from public consultation meetings is posted online.	Look to move to using an online policy book.	2009	No End Date (Continuous)
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress			Mostly SharePoint, but also Moodle. Teachers are the primary consumers of this training related to the Modern Education Course, and the technology team related to tech documentation.	Expansion of the Modern Education course to include more staff and students.	2010	No End Date (Continuous)

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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
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			No change in 2011	Continued staff training.	2008	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress			No change in 2011	Continued staff training.	2008	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 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
Business Travel							
Virtual meeting technology							
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Completed in 2011	100	% of computers have web-conferencing software installed	Deployed Big Blue Button Adobe Flash based video conferencing software.		2009	2011
Make desktop web-cameras available to staff	Ongoing/In Progress	10	% of staff have access to a desktop web-camera	All new laptops are purchased with web cameras, but most of these have been student use to date (70% student use, 10% staff)	Ongoing computer replacement with web-cameras.	2009	2013
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	In Development	100	% of meeting rooms have access to video-conferencing equipment	Currently using various web based conferencing tools which are laptop based. Not true stand alone units.	Consider installing units if consolidated board office project proceeds.	2009	2014
Behaviour change program							
Train staff in web-conferencing	Ongoing/In Progress	20	% of staff are trained web-conferencing	Mostly related to BCeSIS SPED implementation.	Continued staff training.	2009	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			Did first full 5 day course by video and web conferencing, result was not very good.	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".	Continued promotion of walking and biking.	2008	No End Date (Continuous)
Education, Awareness, and Engagement							
Team-building							
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress			Teacher strike slowed progress on these initiatives.	Raise awareness at all sites through incentives, contests and policy/procedure. Promote participation in "Lights Out Canada" in 2012.	2009	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	In Development			Teacher strike slowed progress on these initiatives.	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			Teacher strike slowed progress on these initiatives.	Raise awareness at all sites through incentives, contests and policy/procedure. Promote participation in "Earth Day" in 2012.	2010	No End Date (Continuous)
Awards/Recognition							
Establish a sustainability/green awards or recognition program	In Development			Teacher strike slowed progress on these initiatives.	Raise awareness at all sites through incentives, contests and policy/procedure.	2010	No End Date (Continuous)
Staff Professional Development							
Support green professional development (e.g., workshops, conferences, training)	In Development			Teacher strike slowed progress on these initiatives.	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)
Staff awareness/education							

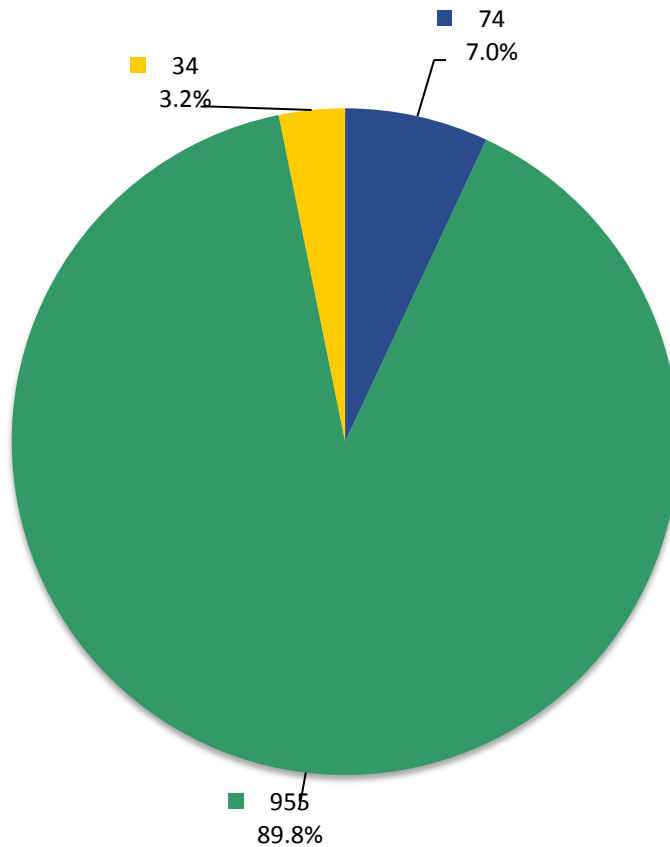
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Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Provide education to staff about the science of climate change	In Development			Teacher strike slowed progress on these initiatives.	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			Teacher strike slowed progress on these initiatives.	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			Teacher strike slowed progress on these initiatives.	Raise awareness at all sites through incentives, contests and policy/procedure.	2010	No End Date (Continuous)
Client/public awareness/education							
Provide green tips on client/public website or in newsletters	In Development				Superintendent implementing a newsletter; green tips will be included.	2011	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			Toilets are replaced 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)
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			Recycling of paper, cardboard and drink containers at all facilities.	Review other materials that could be recycled.	2008	No End Date (Continuous)
Procurement (non-paper supplies)							
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	In Development			With new purchaser position, we are evaluating recycling content options in our purchases.	Implement recycling content options in purchasing.	2011	No End Date (Continuous)
Establish green standards for goods that are replaced infrequently and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)	Ongoing/In Progress			Begun the process of green-cycling our technology, recycling or otherwise selling (where possible) our older technology back to vendors. This year we will recover \$12,000 in recycling.	Continue the same process.	2011	No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress			Buyer uses green where possible when centrally ordering custodial products.	Buyer uses green where possible when centrally ordering custodial products.	2008	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				Potential new middle school would implement as part of LEED.	2010	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	In Development				Potential new middle school would implement as part of LEED.	2010	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			Most painting is done with water-based paints. Use of carpet is minimized for flooring replacements.	Consideration of a formal policy.	2008	No End Date (Continuous)
Commuting to and from home							

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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
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".	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)
Other Sustainability Actions							
Encouraged re-use of furniture and equipment	Ongoing/In Progress			Made supplies, furniture and equipment from closed schools available to other schools, community organizations and public at large.	Following further school closure in 2012, used equipment and furniture will be reused in schools or made available to others in the community.	2008	2012
Reduce/replace bottled water with filtered or refrigerated water.	Ongoing/In Progress			Installed Board Office filtered water cooler.	Review water supply in all buildings.	2008	No End Date (Continuous)
Reduce distance driven by parents to bring children to school.	Completed in 2011			School closure resulted in movement of the French Immersion program to a more central school location, resulting in less travel for parents driving students to the program and picking them up.		2011	2011

**School District 52 - Prince Rupert
Greenhouse Gas Emissions by Source
for the 2011 Calendar Year (tCO₂e*)**



Total Emissions: 1,063

- 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 12:18 PM)

Total offsets required: **1,042**. Total offset investment: **\$26,050**. Emissions which do not require offsets: **21** **

*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.