

# **School District No. 92 (Nisga'a) - 2009 Carbon Neutral Action Report**

## **Executive Summary**

School District No. 92 (Nisga'a) has been contributing towards carbon reduction for a number of years by investing in equipment and lighting retrofits and working with employees and building systems to improve overall systems performance and reduce energy consumption. Over the years we have completed heating and lighting energy improvements through a partnership with BC Hydro in the Powersmart Program. We have started to work toward improving our mechanical and control systems which will improve comfort to our occupants and allow us to operate our buildings economically. We have started working with our employees and students to minimize waste in our schools. Our schools will begin to expand on environmental learning in the curriculum. We will begin on recycling, composting and waste reduction programs in the schools which will increase student and staff participation. We continue with vehicle preventive maintenance and our anti-idling program. We also plan to move toward using sustainable products for cleaning and building maintenance.

## **Overviews**

### **Actions Taken to Reduce Greenhouse Gas Emissions in 2009**

School District No.92 (Nisga'a) is in a unique area of northern BC. This puts in a position to take a leadership role and demonstrate the steps needed to reduce greenhouse gas emissions in each of our communities. We see this responsibility and opportunity to engage our students, employees and partners in this School District's mandate to reduce greenhouse gas emissions. The leadership we take in greenhouse gas emissions will allow our organization to become more fiscally responsible by reducing waste through energy conservation. This will allow us to balance social, economic and environmental issues for future generations not only in our School District but also in local communities.

Since the introduction of the Carbon Neutral Action program we are beginning to notice a difference in our paper waste, fuel consumption, energy use and overall employee environmental awareness.

### **Plans to Continue Reducing Greenhouse Gas Emissions 2010 – 2012**

Because electricity in our area is our primary heat source in all our facilities, we will continue to work with BC Hydro through their Powersmart program to reduce energy. We will continue to improve fuel consumption through our vehicle preventive maintenance program. We will also continue to move forward with our student and staff environmental awareness program.

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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
<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	75	% of vehicles are fuel- efficient models	Replaced three school buses from gas to diesel	two more bus replacements	2008	2012
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	In Development				review possibilities depending on vehicle use	2011	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	80	% of vehicles are subject to regular maintenance for fuel efficiency	Up-graded to newer model vehicles	replace vehicles as deficiencies warned to upgrade	2011	No End Date (Continuous)
<b>Behaviour change program</b>							
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	50	% of current drivers are trained	Started staff training awareness on ways to reduce fuel use	Intrduce as part of driver training requirement	2011	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	50	% In district staff only	Started in District anti-idling program	Meet with village governments to introduce anti-idling by-law	2011	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress	25	% In district staff only	provided bus service for district staff to get to meeting	Continue to provide bus service for staff	2010	No End Date (Continuous)
<b>Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)</b>							
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress	50	% of owned buildings have undergone energy retrofits since start year indicated	upgraded heating,lighting through BC Hydro power smart program	continue to upgrade heating and ventilation systems in building where needed	2003	2012
<b>Retrofitting owned buildings</b>							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	50	% of retrofits (captured above) had heating, cooling, and ventilation systems upgrades	completed heating/ventilation upgrade in secondary/elementary school	upgrade to an energy efficient HVAC in two elementary schools and control upgrade in one elementary school	2011	No End Date (Continuous)
Upgrade lighting systems during retrofits	Complete	75	% of retrofits (captured above) had lighting systems upgrades	completed lighting upgrades on all schools through BC Hydro power smart program.	complete an energy audit on remaining District building	2003	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Complete	50	% of retrofits (captured above) had control system upgrades or adjustments	completed control upgrades on Secondary/Elementary school through BC Hydro power smart program.	upgrade to an energy efficient HVAC in two elementary schools and control upgrade in one elementary school	2011	No End Date (Continuous)
<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	have installed on all replacement computers	continue to upgrade	2009	2012

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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 server virtualization	Complete	100	% of servers have been virtualized since start year indicated	replace with energy efficient models		2010	2012
Apply auto-sleep settings on computer monitors and CPUs	Complete	100	% of computers have auto-sleep settings applied	installed on all computers		2010	2012
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Complete	100	% reduction in printers, copiers, and/or fax machines since start year indicated	Have installed in all areas were required		2010	2012
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Complete	100	% of devices have auto-sleep settings applied	installed on all equipment when replaced		2010	2012
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	85	% of computers are ENERGY STAR rated	When replacing computers, we replace with energy star models	continue to upgrade	2009	2012
<b>Appliances and electronic devices</b>							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress	30	% of fridges are ENERGY STAR rated	Replace with energy star models	on-going	2009	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	40	microwaves, etc	Replace with energy star models when needed	continue	2009	No End Date (Continuous)
<b>Behaviour change program</b>							
Help staff reduce personal energy use through "workstation tune-ups"	In Development				begin staff training on energy awareness	2004	2012
Ask staff to unplug electrical equipment or switch off power bars when not in use	In Development				begin staff training on energy awareness	2009	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	In Development				begin staff training on energy awareness	2009	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	In Development				begin staff training on energy awareness	2009	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			have install occupancy sensors in classrooms and timers swiches in storage areas	continue staff training on energy awareness	2009	No End Date (Continuous)
Promote hot water conservation	In Development				begin staff training on energy awareness	2010	No End Date (Continuous)
<b>Supplies (Paper)</b>							
<b>Paper Type</b>							
Purchase 30% post-consumer recycled paper	In Development				Begin to introduce recycled paper	2011	2012
Purchase 100% post-consumer recycled paper	In Development				Begin to introduce recycled paper	2012	No End Date (Continuous)
<b>Printer/document settings</b>							
Switch networked printers and photocopiers to automatic double-sided	In Development				Introduce through staff training	2011	2012

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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
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	In Development			Introduce through staff training	2011	2012
Reduce default margin size in standard document templates (e.g., letters, briefing notes, forms, etc.)	In Development			Introduce through staff training	2011	2012
<b>Electronic media in place of paper</b>						
Post materials online that were previously printed	Ongoing/In Progress		Began posting information on School District web site	psot everything on School District web site	2010	2012
Switch to an electronic payroll notification system in place of paper pay stubs	Complete		introduce electronic payroll notification to staff		2009	2010
<b>Behaviour change program</b>						
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development			staff training	2011	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress		staff training, plus equipment instalation	continue staff training	2010	2012
Encourage re-use of scrap paper	Ongoing/In Progress		introduce through staff training	continue staff training, policy development	2010	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 *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
<b>Business Travel</b>							
<b>Policy and budgeting</b>							
Create a low-carbon travel policy or travel reduction goal	In Development				policy development	2011	2012
<b>Virtual meeting technology</b>							
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	25	% of computers have web-conferencing software installed	Installed in two meeting rooms	Plan to install in all administration offices	2012	No End Date (Continuous)
Make desktop web-cameras available to staff	In Development				policy development	2012	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Ongoing/In Progress	50	% of meeting rooms have access to video-conferencing equipment	Installed in two meeting rooms	move toward mobile video conferencing units	2012	No End Date (Continuous)
<b>Behaviour change program</b>							
Train staff in web-conferencing	In Development				policy development	2012	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	In Development				staff training	2012	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	In Development				policy development	2012	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			encourage staff to use school bus transportation when provided	continue	2009	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	In Development				Establish a green team	2011	2012
<b>Other Sustainability Actions</b>							
<b>Procurement (non-paper supplies)</b>							
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	In Development				Begin using green cleaning products,etc	2011	No End Date (Continuous)
<b>Indoor air quality</b>							
Enforce a scent-free policy (e.g., no strong perfumes, deodorants, etc.)	In Development				Policy devolpment	2011	2012