School District No. 92 (Nisga'a) - 2012 Carbon Neutral Action Report

Executive Summary

School District No. 92 (Nisga'a) has been contributing towards carbon 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 are continuing 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 are continuing work with our employees and students to minimize waste in our schools. Our schools will begin to expand on environmental learning into 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 will also begin to move toward using sustainable products for cleaning and building maintenance.
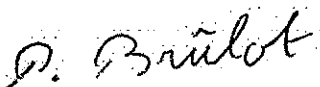
Overviews

Actions Taken to Reduce Greenhouse Gas Emissions in 2012

School District No.92 (Nisga'a) is in a unique area of northern BC. This puts us 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 local communities.

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

Plans to Continue Reducing Greenhouse Gas Emissions 2013 – 2014

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 and through our five year capital plan on projects as heating and ventilations upgrades to reduce energy. WE will continue to improve fuel consumption through our vehicle preventive maintenance program. We will also continue to move toward our student and staff environmental awareness program.

Philippe Burlot, Superintendent of Schools

2012 CNAR - Manual Template - Actions Towards Carbon Neutrality

NOTE - This is a manual template provided for those who wish to fill this out *prior to* filling in the online CNAR. Entries made here can be cut and pasted into the online CNAR as needed. This sheet contains six tabs - A.1 - B.6. 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 Dec 31, 2012	Steps Taken in 2012	Steps Planned for 2013 -2014	Start Year	End Year
Mobile Fuel Combustion (Fleet and other mobile equipment)					
Note: For this section, commuting to and from home are outside of scope (see B.6)					
Vehicle fuel efficiency					
Replace vehicles with more **fuel-efficient** models	Ongoing/In Progress	80% vehicles are fuel efficient models	continue to upgrade as needed	2008	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet **"right-sizing"** principles	Ongoing/In Progress	will replace when needed,	continue to upgrade as needed	2008	No End Date (Continuous)
Perform **regular** fleet maintenance specifically to improve fuel-efficiency	Ongoing/In Progress	replace when needed	continue to upgrade as needed	2011	No End Date (Continuous)
Behaviour change program					
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	drivers are being make aware on ways to reduce fuel use	make part of our employee driver orientation	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	School District is on an anti-idling program	Policy development, meet with local government to update their bi-law	2011	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress	continue to provide bus service for staff	ongoing	2010	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Not Applicable	on pulic transortation			
Other Mobile Fuel Combustion Actions					

2012 CNAR - Actions Towards Carbon Neutrality

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Action	Status as of Dec 31, 2012	Steps Taken in 2012	Steps Planned for 2013 -2014	Start Year	End Year
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)					
Planning/management					
Reduce office space (square meters) per employee	Not Yet Evaluated				
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	DDC installations, uccupancy censers, timer switches at two of Schools	havac upgrade planned at one of ours Schools	2011	No End Date (Continuous)
Owned buildings					
Establish energy performance baseline for owned buildings	Not Yet Evaluated				
Register for performance labelling/certification for operations and maintenance of owned buildings (e.g., **LEED EB:O&M**)	Not Yet Evaluated				
Register for performance labelling/certification for commercial interiors of owned buildings (e.g., **LEED CI**)	Not Yet Evaluated				
Achieve **LEED NC** Gold certification at a minimum for new construction or major renovations	Not Yet Evaluated				
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce **fugitive emissions**	Not Applicable				
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress	upgraded heating, lighting through BC Hydro power smart program	continue to upgrade heating/ventilation systems in building where needed	2003	No End Date (Continuous)
Retrofitting owned buildings					
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	50% completed, two schools	one school approved to done this year	2011	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	all school completed	will contunie to work with BC Hydro to upgrade other building	2003	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	all school completed	will contunie to work with BC Hydro to upgrade other building	2003	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Not Yet Evaluated				
Leased buildings					
Establish energy performance baseline for leased buildings	Not Applicable				
Lease space with operations and maintenance performance labelling/certification (e.g., **LEED EB:O&M**)	Not Applicable				
Lease space with commercial interiors performance labelling/certification (e.g., **LEED CI**)	Not Applicable				
Lease space in buildings with new construction performance labelling/certification (e.g., **LEED NC**)	Not Applicable				
Develop a **green lease** policy that requires **green features** to conserve energy be included in all lease negotiations	Not Applicable				
IT power management					
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	upgraded all servers	continue to upgade	2009	No End Date (Continuous)
Implement server virtualization	Ongoing/In Progress	upgraded all servers	continue to upgade	2011	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	comleted	continue to upgade	2010	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install **multi-function devices**	Ongoing/In Progress	comleted	continue to upgade	2010	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	comleted	continue to upgade	2010	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	continue to upgrade	continue to upgade	2009	No End Date (Continuous)
Behaviour change program					
Help staff reduce personal energy use through "**workstation tune-ups**"	Ongoing/In Progress	completed staff training	continue to train	2004	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress	continue to train	continue to train	2009	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	In Development	completed blind replacement for sun and lighting control	continue to train	2009	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Not Applicable				
Provide tips to staff on saving energy in the office while working outside of regular business hours	In Development				
Encourage use of stairs instead of elevators	Not Applicable				
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress	occupancy sensers and timer controls	continue staff training on energy awareness	2009	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress	continue staf training on energy awareness	continue staff training on energy awareness	2010	No End Date (Continuous)
Other Stationary Fuel Combustion, Electricity, and Fugitive Emissions Actions					

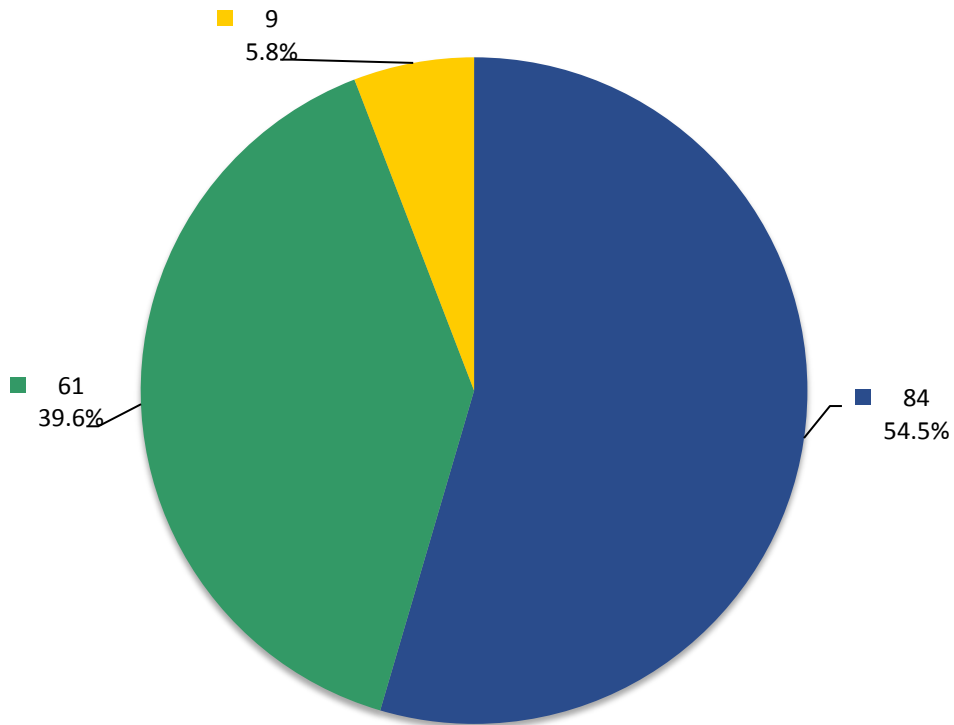## 2012 CNAR - Actions Towards Carbon Neutrality

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 Dec 31, 2012	Steps Taken in 2012	Steps Planned for 2013 -2014	Start Year	End Year
Supplies (Paper)					
Note: For this section, non-paper supplies are outside of scope (see B.6)					
Paper Type					
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	paper evalation on costs	pending costs	2011	No End Date (Continuous)
Purchase 40% post-consumer recycled paper	Ongoing/In Progress	paper evalation on costs	pending costs	2011	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	paper evalation on costs	pending costs	2011	No End Date (Continuous)
Printer/document settings					
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	completed	continue	2011	No End Date (Continuous)
Electronic media in place of paper					
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	completed	continue	2011	No End Date (Continuous)
Use electronic document library for filing common documents	Not Yet Evaluated				
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress	continue	continue	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	continue to train	continue to train	2011	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress	continue to train	continue to train	2010	No End Date (Continuous)
Other Paper Supplies Actions					

2012 CNAR - 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 Dec 31, 2012	Steps Taken in 2012	Steps Planned for 2013 -2014	Start Year	End Year
Business Travel					
Note: For commuting to and from home see B.6					
Policy and budgeting					
Create a **low-carbon** travel policy or travel reduction goal	Not Applicable				
Virtual meeting technology					
Install **web-conferencing** software (e.g., Live Meeting, Elluminate, etc.)	In Development	install network system	continue to upgrade system	2012	No End Date (Continuous)
Make desktop web-cameras available to staff	Not Yet Evaluated				
Install **video-conferencing units** in meeting rooms or provide **mobile** video-conferencing units	Ongoing/In Progress	none	install system in Schools	2012	No End Date (Continuous)
Behaviour change program					
Train staff in web-conferencing	Ongoing/In Progress	staff training	continue staff training	2012	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	In Development	staff training	continue staff training	2012	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress	provided bussing	continue to train staff on energy awareness	2012	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Not Applicable				
Other Business Travel Actions					

2012 CNAR - Actions to Reduce Provincial Emissions and Improve Sustainability

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Action	Status as of Dec 31, 2012	Steps Taken in 2012	Steps Planned for 2013 -2014	Start Year	End Year
Education, Awareness, and Engagement					
Team-building					
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	In Development	policy development	team development	2011	2014
Provide resources and/or dedicated staff to support teams	Not Yet Evaluated				
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Not Yet Evaluated				
Awards/Recognition					
Establish a sustainability/green awards or recognition program	Not Yet Evaluated				
Staff Professional Development					
Support green professional development (e.g., workshops, conferences, training)	Not Yet Evaluated				
Include green options in employee performance measurement system	Not Yet Evaluated				
Staff awareness/education					
Provide education to staff about the science of climate change	Not Yet Evaluated				
Provide education to staff about the conservation of water, energy, and raw materials	Not Yet Evaluated				
Provide green tips on staff website or in newsletters	Not Yet Evaluated				
Provide sustainability education during new staff orientation	Not Yet Evaluated				
Other Education, Awareness, and Engagement Actions					

2012 CNAR - 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 Dec 31, 2012	Steps Taken in 2012	Steps Planned for 2013 -2014	Start Year	End Year
Other Sustainability Actions					
Water conservation					
Establish a water conservation strategy which includes a plan or policy for replacing **water fixtures** with efficient models	Not Applicable				
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	Not Applicable				
Introduce a **stormwater management** landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	Not Applicable				
Waste reduction/diversion					
Put in place an operations policy to facilitate the **reduction** and **diversion** of building occupant waste from landfills or incineration facilities	Not Yet Evaluated				
Implement a **hazardous waste** reduction and disposal strategy	Not Yet Evaluated				
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.)	Not Yet Evaluated				
Establish **green standards** for goods that are replaced infrequently and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)	Not Yet Evaluated				
Implement sustainable purchasing program for **cleaning products**, disposable paper products and trash bags	Ongoing/In Progress	pending costs	on going	2012	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	policy development	begin to follow policy	2012	No End Date (Continuous)
Incorporate **lifecycle costing** into new construction or renovations	Not Yet Evaluated				
Commuting to and from home					
Introduce telework/work from home policy	Not Applicable				
Offer staff a compressed work week	Not Applicable				
Encourage commuting by foot, bicycle, carpool or public transit	Not Applicable				
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Not Yet Evaluated				
Provide secure bicycle storage	Not Yet Evaluated				
Adaptation to Climate Change					
Assessed whether extreme weather events and/or long term changes in climate will affect the organization's business areas	Not Yet Evaluated				
Integrated considerations of extreme weather events and/or long term changes in climate into the organization's decision making.	Not Yet Evaluated				
Other Sustainability Actions					

School District 92 - Nisga'a
Greenhouse Gas Emissions by Source
for the 2012 Calendar Year (tCO$_2$e*)

■ 9
5.8%

■ 61
39.6%

■ 84
54.5%

Total Emissions: 154

■ 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 2012 (Generated May 31, 2013 12:15 PM)
Total offsets required: **99**. Total offset investment: $**2,475**. Emissions which do not require offsets: **55 ***

*Tonnes of carbon dioxide equivalent (tCO$_2$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.