

School District No. 20 Kootenay Columbia – 2012 Carbon Neutral Action Report

Executive Summary

School District No. 20 is committed to continuing on the path of implementing changes to our stationary buildings, our mobile fleet, our procurement and delivery of supplies and services which will reduce our carbon emissions and our energy consumption.

As an educational leader in our area of the province, we wish to lead by example by modeling a sustainable lifestyle and teaching our students and staff how sustainability can be achieved in all aspects of our lives.

We fully expect the results of our efforts will help to maintain and improve our beautiful local environment and improve the service we provide to our students by reducing utility and carbon offset costs which will free up funds that may be redirected to support student achievement.

2012 Greenhouse Gas Emissions

School District No 20's total GHG emissions from all sources for 2012 are 2377 tonnes

Offsets Applied to Become Carbon Neutral in 2012

Total emission offsets of 1971 tonnes have been applied to become carbon neutral for 2012.

As required by section 5 of the Carbon Neutral Government regulation 407 tonnes of CO₂e of emissions resulting from the operation of school buses were reported as part of our greenhouse gas emissions profile in 2012. However, they were not offset as they are out-of-scope under section 4(2)(c) of the Carbon Neutral Government Regulation.

Emissions Reduction Activities

Actions Taken to Reduce Greenhouse Gas Emissions in 2012

- We purchased only paper that had recycled content.
- We employed engineering TAB services on our largest older high school to improve efficiencies and reduce GHG emissions.
- We had engineering surveys completed on three schools to identify GHG reduction


opportunities.

-We reinforced our anti idling campaign.

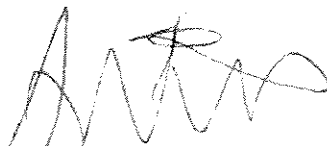
-We worked to streamline our school bus runs to reduce the daily kilometres travelled in order to reduce fuel use and emissions.

Plans to Continue Reducing Greenhouse Gas Emissions 2013-2014

Our School District plans to continue with the initiatives already in place and to focus more closely on sustainable lifestyles and practices. We will also be focusing on reducing our stationary and mobile emissions by working on updating our District Energy Management Action Plan of 2006 to identify energy use and GHG emission areas of priority for improvement. We have purchased a school bus routing software program to more efficiently deploy our fleet.



CNAR Report Prepared by Director of Operations Steve Morissette



CNAR Report Approved by Superintendent Greg Luterbach

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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	Steps Taken	Steps Planned	Start Year	End Year
Mobile Fuel Combustion (Fleet and other)					
Behaviour change program					
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	Ongoing driver training around efficient driving - anti-idling etc.	Continued efficiency training	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	Ongoing training refreshers.	Continue training/reminders	2009	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress	Continued encouragement	Continue encouragement	2009	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress	Model/encourage walking or cycling where possible.	Continued modelling/encouragement.	2009	No End Date (Continuous)
Other Mobile Fuel Combustion Actions					
Driver's trained to reduce fuel use through anti-idling	Ongoing/In Progress	Smart Driver training ongoing	Smart Driver Training ongoing	2009	No End Date (Continuous)
Vehicle fuel efficiency					
Replace vehicles with more fuel-efficient models	Ongoing/In Progress	Replaced two maintenance vans with two more efficient vans.	Continued replacement of old vehicles with more efficient vehicles.	2009	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	Replaced two older inefficient vans with newer more efficient (smaller engines) vans.	Continued replacement of inefficient vehicles with more efficient replacements.	2009	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Completed (in Previous Year)				No End Date (Continuous)
Stationary Fuel Combustion, Electricity					
Behaviour change program					
Help staff reduce personal energy use through "workstation tune-ups"	Not Yet Evaluated				No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Not Yet Evaluated				No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Not Yet Evaluated				No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Not Yet Evaluated				No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Not Yet Evaluated				No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Not Yet Evaluated				No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Not Yet Evaluated				No End Date (Continuous)
Promote hot water conservation	Not Yet Evaluated				No End Date (Continuous)
IT power management					
Install power management software which shuts down computers outside of regular business hours	Completed (in Previous Year)				No End Date (Continuous)
Implement server virtualization	Ongoing/In Progress	25% of servers completed.	Further servers virtualized	2011	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Completed (in Previous Year)				No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices as part of a print management strategy	Ongoing/In Progress	Further stand alone machines taken out of service.	Continuation of removing stand alone servers.	2010	No End Date (Continuous)
Apply auto-sleep settings on printers, fax machines, and/or multi-function devices	Ongoing/In Progress	60% completed	Further completions.	2011	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	All replacements are energy star rated.	Continue replacement with energy star rated computers.	2009	No End Date (Continuous)
Leased buildings					
Establish energy performance baseline for leased buildings	Not Yet Evaluated				No End Date (Continuous)
Lease space with operations and maintenance performance labelling/certification (e.g., LEED EB:O&M)	Not Yet Evaluated				No End Date (Continuous)
Lease space with commercial interiors performance labelling/certification (e.g., LEED CI)	Not Yet Evaluated				No End Date (Continuous)
Lease space in buildings with new construction performance labelling/certification (e.g., LEED NC)	Not Yet Evaluated				No End Date (Continuous)
Develop a green lease policy that requires green features to conserve energy be included in all lease negotiations	Not Yet Evaluated				No End Date (Continuous)
Owned buildings					
Establish energy performance baseline for owned buildings	Not Yet Evaluated				No End Date (Continuous)
Register for performance labelling/certification for operations and maintenance of owned buildings (e.g., LEED EB:O&M)	Not Yet Evaluated				No End Date (Continuous)
Register for performance labelling/certification for commercial interiors of owned buildings (e.g., LEED CI)	Not Yet Evaluated				No End Date (Continuous)
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress	TAB services performed on one of our larger schools, Stanley Humphries Secondary School.	Hope to have TAB services performed on Fruitvale Elementary School.	2009	No End Date (Continuous)
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	Not Yet Evaluated				No End Date (Continuous)
Planning/management					
Reduce office space (square meters) per employee	Not Yet Evaluated				No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Not Yet Evaluated				No End Date (Continuous)
Retrofit details for owned buildings					
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	In Development	CN studies completed on three buildings	Further studies on three more buildings.	2009	No End Date (Continuous)
Upgrade lighting systems during retrofits	Completed (in Previous Year)				No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	Had TAB services completed on Stanley Humphries Secondary School.	Have TAB services completed on Fruitvale Elementary school.	2012	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Not Yet Evaluated				No End Date (Continuous)
Supplies (Paper)					
Behaviour change program					
Train staff to use collaborative software for electronic editing (e.g.	Not Yet				No End Date

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
SharePoint, Groove, etc.)	Evaluated				(Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress	Paperless meetings are held where possible.	Paperless meetings will continue to be held where possible.	2009	No End Date (Continuous)
Electronic media in place of paper					
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Not Yet Evaluated				No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress	Further use of electronic documents	Further use of electronic documents	2010	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Completed (in Previous Year)				No End Date (Continuous)
Paper Type					
Purchase 30% post-consumer recycled paper	Completed (in Previous Year)				No End Date (Continuous)
Printer/document settings					
Switch networked printers and photocopiers to automatic double-sided	Not Yet Evaluated				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

Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Business Travel					
Behaviour change program					
Train staff in web-conferencing	In Development	Used when offered by outside groups.	Continued use when offered by outside groups.	2009	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	In Development	Used by many staff.	Continued growth of use.	2009	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress	Use whenever possible	Continue to carpool when possible.	2010	No End Date (Continuous)
Policy and budgeting					
Create a low-carbon travel policy or travel reduction goal	Not Yet Evaluated				No End Date (Continuous)
Virtual meeting technology					
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Ongoing/In Progress	Using software where possible.	Continue to grow the use.	2009	No End Date (Continuous)
Make desktop web-cameras available to staff	Not Yet Evaluated				No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Not Yet Evaluated				No End Date (Continuous)
Education, Awareness, and Engagement					
Awards/Recognition					
Establish a sustainability/green awards or recognition program	Not Yet Evaluated				No End Date (Continuous)
Staff Professional Development					
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress	Took HVAC staff to energy workshops.	Continue training.	2012	No End Date (Continuous)
Include green options in employee performance measurement system	Not Yet Evaluated				No End Date (Continuous)
Staff awareness/education					
Provide education to staff about the science of climate change	Not Yet Evaluated				No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	Not Yet Evaluated				No End Date (Continuous)
Provide green tips on staff website or in newsletters	Not Yet Evaluated				No End Date (Continuous)
Provide sustainability education during new staff orientation	Not Yet Evaluated				No End Date (Continuous)
Team-building					
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Not Yet Evaluated				No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Not Yet Evaluated				No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Not Yet Evaluated				No End Date (Continuous)
Other Sustainability Actions					

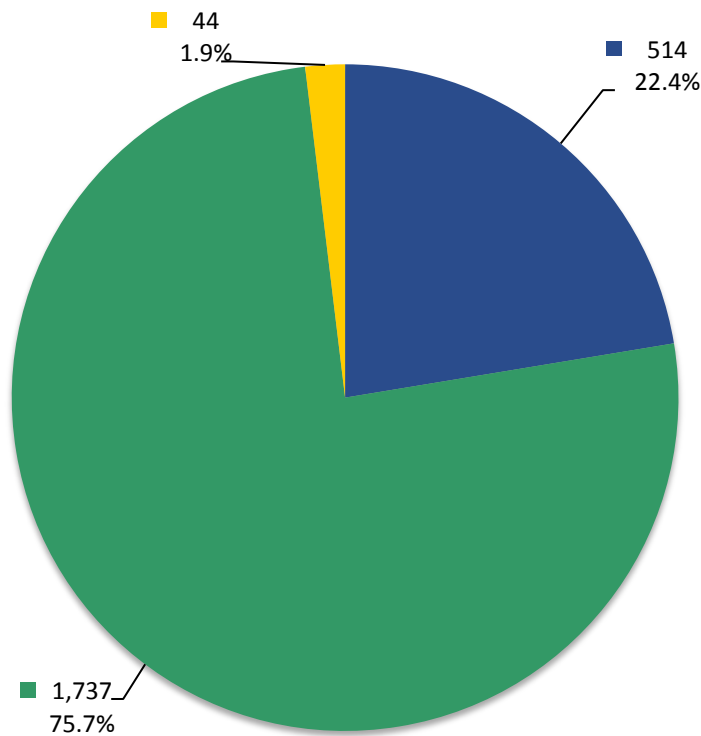
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Actions to Reduce Provincial Emissions and Improve Sustainability

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
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				No End Date (Continuous)
Integrated considerations of extreme weather events and/or long term changes in climate into the organization's decision making.	Not Yet Evaluated				No End Date (Continuous)
Building construction, renovation					
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	Not Yet Evaluated				No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	Not Yet Evaluated				No End Date (Continuous)
Commuting to and from home					
Introduce telework/work from home policy	Not Yet Evaluated				No End Date (Continuous)
Offer staff a compressed work week	Not Yet Evaluated				No End Date (Continuous)
Encourage commuting by foot, bicycle, carpool or public transit	Not Yet Evaluated				No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Not Yet Evaluated				No End Date (Continuous)
Provide secure bicycle storage	Not Yet Evaluated				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.)	Not Yet Evaluated				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.)	Not Yet Evaluated				No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Completed (in Previous Year)				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	Not Yet Evaluated				No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Not Yet Evaluated				No End Date (Continuous)
Water conservation					
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Not Yet Evaluated				No End Date (Continuous)
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 Yet Evaluated				No End Date (Continuous)
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	Not Yet Evaluated				No End Date (Continuous)

**School District 20 - Kootenay-Columbia
Greenhouse Gas Emissions by Source
for the 2012 Calendar Year (tCO₂e*)**



Total Emissions: 2,295

- 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 28, 2013 3:34 PM)

Total offsets required: **1,888**. Total offset investment: **\$47,200**. Emissions which do not require offsets: **407** **

*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.