



## **2012 CARBON NEUTRAL ACTION REPORT**

### **Executive Summary**

The Coast Mountains Board of Education School District 82 and its 18 schools are working to become leaders in Northern B.C. in sustainable practices and environmental awareness. The district's commitment to promoting environmentally friendly practices and reducing our collective carbon footprint is reflected at all levels of the organization.

The Board of Education of Coast Mountains School District is proud to have supported many energy conservation initiatives over the past 10 years, which have contributed to moving us closer to carbon neutrality. These include district-wide lighting upgrades, which eliminated the use of both T12 lighting and incandescent lighting in our district, the implementation of direct digital controls for our heating systems and have moved forward with a program to support motion sensor lighting inside schools and daylight sensors for external lighting control. In addition, we have continued to replace our high temperature boilers with energy efficient condensing boiler systems.

### **Overview**

#### **2012 Greenhouse Gas Emissions and Offsets Applied**

In 2012, the Coast Mountains Board of Education School District 82 generated a total of 2,685.77 tonnes of CO<sub>2</sub>e. In order to become carbon neutral for 2012, our district has purchased 2,686 tonnes of emission offsets with a total value of \$70,507.50.

#### **Actions Taken to Reduce Greenhouse Gas Emissions in 2012**

Coast Mountains Board of Education continues to promote environmental responsibility through the education system in all of its schools by providing both support and information to school principals, teachers and parent advisory committees throughout the district. Schools employ recycling programs, composting programs, and energy conservation programs within each site. The district will work to coordinate these efforts at a broader level in order to maximize the benefits and create a stronger consistency of program delivery between all schools.



### **Actions Taken to Reduce Greenhouse Gas Emissions in 2012** *(continued)*

The Coast Mountains Board of Education has continued to replace aging boilers in its schools and renovate/retrofit facilities as funding is available. The Board installed occupancy sensors to control lighting in two secondary schools and five elementary schools. We have 11 facilities in which we have replaced 32-watt lamps with 28-watt lamps. We have upgraded two of our schools with energy efficient windows, and have replaced older high-temperature boilers with condensing boilers in two of our facilities, which will significantly reduce our natural gas and propane heating consumption. This program is in partnership with the Ministry of Education.

There are currently many projects and initiatives that have been carried out in schools and classrooms throughout Coast Mountains School District 82 in 2011. These include, but are not limited to, recycling programs, anti-idling signage, walk to school initiatives, turn-it-off programs for lighting and computers, composting, creating a community garden, tree planting, and water conservation awareness. District schools also participate in a number of celebrations revolving around Earth Day.

### **Plans to Continue Reducing Greenhouse Gas Emissions 2013**

The Coast Mountains Board of Education will continue to promote green teams, student-learning initiatives, and increase the educational presence on the sustainability committee to provide further support to our schools.

The school district will continue to upgrade its boiler plants, mechanical systems, control systems, and building envelopes to optimize its energy utilization.

The school district will be upgrading lighting controls in six facilities and will continue to convert buildings to the 28-watt lamps and are scheduled to replace three high temperature boilers at over the coming year.

A handwritten signature in black ink, appearing to read 'Alanna Cameron'.

Alanna Cameron  
Secretary Treasurer.

Coast Mountains Board of Education School District 82

## School District 82 Coast Mountains - 2012 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	Steps Taken	Steps Planned	Start Year	End Year
<b>Mobile Fuel Combustion (Fleet and other)</b>					
<b>Behavior change program</b>					
Provide fleet driver training to reduce fuel use	In Development	None	complete training as the course is available in our area	2012	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	Anti-Idling signage is in place at schools. Staff has been instructed on requirement to limit idling.	Ongoing instruction to staff on district policies. Continue to provide support for school programs.	2010	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress	All staff is required to car pool where feasible.	Ongoing instruction to staff on district policies.	2010	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress	Schools regularly promote walk to school programs.	Continue to provide support to schools.	2010	No End Date (Continuous)
<b>Vehicle fuel efficiency</b>					
Replace vehicles with more fuel-efficient models	Ongoing/In Progress	Start Year 2003  Retired three vehicles purchased one new more fuel efficient vehicle.	Continue to evaluate fleet requirements with the aim of reducing the number of vehicles in the fleet.	2008	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	Replaced tractor, with a smaller model more suited to requirements.	Continue to evaluate fleet requirements with the aim of right-sizing the number of vehicles in the fleet.	2011	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	Start Year 2003 All vehicles have a regular maintenance schedule.	Continue program.	2008	No End Date (Continuous)
<b>Stationary Fuel Combustion, Electricity</b>					
<b>Behavior change program</b>					
Help staff reduce personal energy use through ""workstation tune-ups""	Ongoing/In Progress	Start Year 2003  Staff reminded to be energy conscious in all workplace activities through staff meetings and other regular communications.	Continue Practice	2008	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress	Start year 2003  Staff reminded to be energy conscious in all workplace activities through staff meetings and other regular communications.	Continue Practice	2008	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress	Start year 2003  Staff reminded to be energy conscious in all workplace activities through staff meetings and other regular communications.	Continue Practice	2008	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress	Start year 2003  Staff reminded to be energy conscious in all workplace activities through staff meetings and other regular communications.	Continue Practice	2008	No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Encourage staff to use air dry setting on dishwashers	Ongoing/In Progress	Start year 2003 Staff reminded to be energy conscious in all workplace activities through staff meetings and other regular communications.	Continue Practice	2008	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress	Start Year 2003 Staff reminded to be energy conscious in all workplace activities through staff meetings and other regular communications.	Continue Practice	2008	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress	Start Year 2003 Staff reminded to be energy conscious in all workplace activities through staff meetings and other regular communications.	Continue Practice	2008	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress	Start Year 2003 Staff reminded to be energy conscious in all workplace activities through staff meetings and other regular communications.	Continue Practice	2008	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress	Start Year 2003 Staff reminded to be energy conscious in all workplace activities through staff meetings and other regular communications.	Continue Practice	2008	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	Start year 2006 Automated software shuts down all unused computers at 5pm	Monitor and upgrade as required	2008	No End Date (Continuous)
Implement server virtualization	Ongoing/In Progress	Completed implementation of server virtualization in 2009. continued to utilize virtual servers whenever possible while replacing/updating equipment in 2012	Continue practice	2009	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	Insured all CPUs and monitors distributed had active auto-sleep settings.	Continue practice	2008	No End Date (Continuous)
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices as part of a print management strategy	Ongoing/In Progress	Multi-function devices are in place in all schools. And is the Default printer destination for all computers. Moving to e-fax service (virtual fax machines)	Continue practice	2008	No End Date (Continuous)
Apply auto-sleep settings on printers, fax machines, and/or multi-function devices	Ongoing/In Progress	Insured all MFD's have active auto-sleep settings.	Continue Practice	2008	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	All Computers purchased in 2012 were energy star rated	Continue Practice	2008	No End Date (Continuous)
<b>Leased buildings</b>					

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<b>Action</b>	<b>Status</b>	<b>Steps Taken</b>	<b>Steps Planned</b>	<b>Start Year</b>	<b>End Year</b>
Establish energy performance baseline for leased buildings	Not Yet Evaluated				No End Date (Continuous)
Lease space with operations and maintenance performance labeling/certification (e.g., LEED EB:O&M)	Ongoing/In Progress	Energy performance monitored in all facilities and compared to established baseline.	Continue to monitor utility utilization in all facilities.	2010	No End Date (Continuous)
Lease space with commercial interiors performance labeling/certification (e.g., LEED CI)	Not Yet Evaluated				No End Date (Continuous)
Lease space in buildings with new construction performance labeling/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)
<b>Owned buildings</b>					
Establish energy performance baseline for owned buildings	Ongoing/In Progress	Energy performance monitored in all facilities and compared to established baseline.	Continue to monitor utility utilization in all facilities.	2010	No End Date (Continuous)
Register for performance labeling/certification for operations and maintenance of owned buildings (e.g., LEED EB:O&M)	Not Yet Evaluated				No End Date (Continuous)
Register for performance labeling/certification for commercial interiors of owned buildings (e.g., LEED CI)	Not Yet Evaluated				No End Date (Continuous)
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Not Yet Evaluated				No End Date (Continuous)
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress	Start year 2003  Upgraded boiler system in one elementary school in 2012. Installed occupancy controls in 5 elementary schools. Installed 28 watt energy saver tubes in all facilities	Install occupancy controls in 5 elementary schools and one secondary school.	2008	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)
<b>Planning/management</b>					
Reduce office space (square meters) per employee	Ongoing/In Progress	Signed multiple leasing agreements for un/under-utilized buildings throughout the district.	Continue to explore opportunities for the lease or sale of land and buildings in excess of projected needs	2012	No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Not Yet Evaluated				No End Date (Continuous)
<b>Retrofit details for owned buildings</b>					
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	Start Year 2003  Upgraded boiler system in one elementary school in 2012.	Continue Practice	2008	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	Start year 2003  Installed 28 watt energy saver tubes in all facilities	Continue Practice	2008	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	Start year 2003  Installed occupancy controls in 5 elementary schools.	Install occupancy controls in 5 elementary schools and one secondary school.	2008	No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	Replaced windows in two schools during retrofit	Continue Practice	2010	No End Date (Continuous)
<b>Supplies (Paper)</b>					
<b>Behavior change program</b>					
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	Training on share-point is provided where needed.	Training on share-point is provided where needed.	2008	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress	Start year 2003  Staff reminded to be energy conscious in all workplace activities through staff meetings and other regular communications.	Continue Practice	2008	No End Date (Continuous)
<b>Electronic media in place of paper</b>					
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development	Limited use of share point for collaboration in team settings.	Planning Microsoft link installation	2010	No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress	Shared Drives are available at all work locations for electronic document storage.	Continue Practice	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)
<b>Paper Type</b>					
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	Paper is purchased through an annual standing offer; the % of post-consumer recycled content is included in the evaluation criteria used to select the winning bid.	Continue Practice	2010	No End Date (Continuous)
Purchase 40% post-consumer recycled paper	Ongoing/In Progress	Paper is purchased through an annual standing offer; the % of post-consumer recycled content is included in the evaluation criteria used to select the winning bid.	Continue Practice	2010	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	Paper is purchased through an annual standing offer; the % of post-consumer recycled content is included in the evaluation criteria used to select the winning bid.	Continue Practice	2010	No End Date (Continuous)
<b>Printer/document settings</b>					
Switch networked printers and photocopiers to automatic double-sided	In Development	All work sites were encouraged to switch their printers to default 2-sided printing	As MFDs are replaced the default on install of the new device will be 2-sided printing.	2010	No End Date (Continuous)

## School District 82 Coast Mountains - 2012 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

Action	Status	Steps Taken	Steps Planned	Start Year	End Year
<b>Business Travel</b>					
<b>Behavior change program</b>					
Train staff in web-conferencing	Ongoing/In Progress	Start year 2000 training provided to staff that use web conferencing	Continue Practice	2008	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress	Staff is encouraged to utilize video and telephone conference calling where ever practical.	Continue Practice	2010	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress	District has a policy requiring carpooling where practicable.	Continue Practice	2010	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Not Yet Evaluated				No End Date (Continuous)
<b>Policy and budgeting</b>					
Create a low-carbon travel policy or travel reduction goal	Not Yet Evaluated				No End Date (Continuous)
<b>Virtual meeting technology</b>					
Install web-conferencing software (e.g., Live Meeting,lluminate, etc.)	Ongoing/In Progress	lluminate is in use now.	Microsoft lync planned for summer installation	2012	No End Date (Continuous)
Make desktop web-cameras available to staff	Ongoing/In Progress	web cams available in all new laptops	Microsoft lync planned for summer installation	2012	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Ongoing/In Progress	all communities have access to video conferencing within 2 miles of every work location	Continue to promote use of Video conferencing	2009	No End Date (Continuous)
<b>Education, Awareness, and Engagement</b>					
<b>Awards/Recognition</b>					
Establish a sustainability/green awards or recognition program	Not Yet Evaluated				No End Date (Continuous)
<b>Staff Professional Development</b>					
Support green professional development (e.g., workshops, conferences, training)	Not Yet Evaluated				No End Date (Continuous)
Include green options in employee performance measurement system	Not Yet Evaluated				No End Date (Continuous)
<b>Staff awareness/education</b>					
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	Ongoing/In Progress	Start Year 2003 All Maintenance and Custodial staff in-serviced.	Continue Practice	2008	No End Date (Continuous)
Provide green tips on staff website or in newsletters	Ongoing/In Progress	Green Tips sent to Administrative officers	Continue Practice	2009	No End Date (Continuous)
Provide sustainability education during new staff orientation	Not Yet Evaluated				No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
<b>Team-building</b>					
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 behavior change education/training to teams (e.g., community-based social marketing)	Not Yet Evaluated				No End Date (Continuous)
<b>Other Sustainability Actions</b>					
<b>Adaptation to Climate Change</b>					
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)
<b>Building construction, renovation</b>					
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	Ongoing/In Progress	currently use lifecycle costing in regular planning process	Continue Practice	2012	No End Date (Continuous)
<b>Commuting to and from home</b>					
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)
<b>Procurement (non-paper supplies)</b>					
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	Ongoing/In Progress	Where available	Continue Practice	2008	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	All purchases are evaluated for environmental impact and where available Energy Star and other green standards are factored into the purchase decision.	Continue Practice	2011	No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Ongoing/In Progress	use biodegradable cleaning products where ever available Eco-pure	Continue Practice	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	Started before 1995 Recycling programs are active in each of our schools	Continue practice	2008	No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Ongoing/In Progress	Maintenance Dept. Follows best practices in disposal of hazardous	Continue Practice	2008	No End Date



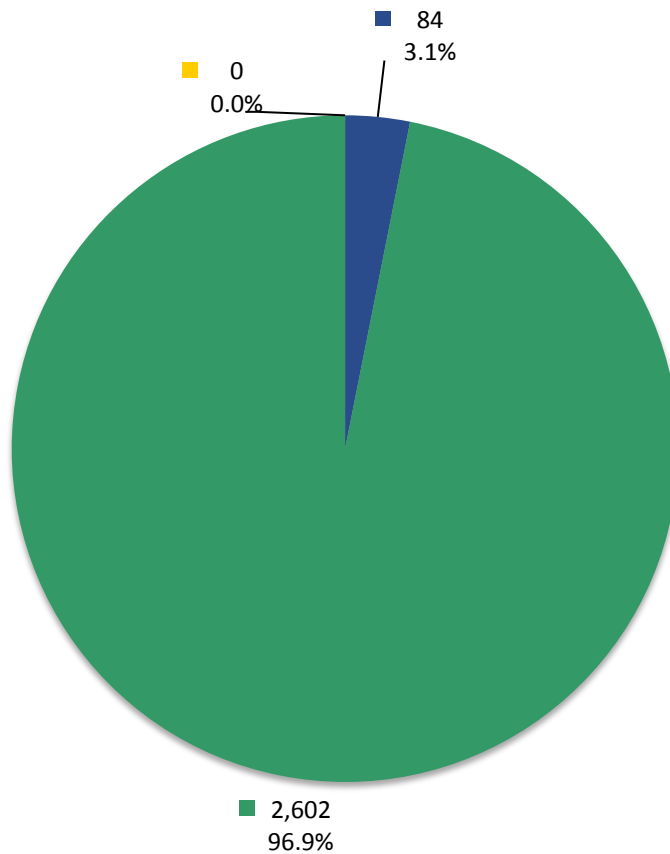
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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
	Progress	waste			(Continuous)
<b>Water conservation</b>					
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Ongoing/In Progress	All renovations and repairs are completed with water efficient fixtures such as low flow toilets and waterless urinals.	Continue Practice	2008	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	Ongoing/In Progress	Potable water demands are assessed and factored into planning as renovations and repairs are undertaken.	Continue Practice	2008	No End Date (Continuous)
Introduce a storm water management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bios wales)	Ongoing/In Progress	Storm-water management opportunities are assessed and factored into planning as renovations and repairs are undertaken.	Continue Practice	2013	No End Date (Continuous)

## School District 82 - Coast Mountain Greenhouse Gas Emissions by Source for the 2012 Calendar Year (tCO<sub>2</sub>e\*)



**Total Emissions: 2,686**

- 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 12:11 PM)**

Total offsets required: **2,680**. Total offset investment: **\$67,000**. Emissions which do not require offsets: **6** \*\*

\*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.