

2010 Carbon Neutral Action Report

Executive Summary:

Learning is a core activity of School District No. 85. We are committed to teaching our future citizens to reduce their carbon foot print. By adopting green practices we are working to instil in our students the need to reduce energy consumption and make our world a healthier and cleaner place to learn, live and work.

Our leadership:

Our executive management team encourages staff and students to “go green” and promotes using recyclable items. It is supportive of the Environmental Educational Steering Committee. The Committee has active members in all of our schools who encourage our staff, students and community members to develop a healthier, sustainable future for our global environment.

Our energy consumption reduction:

In 2010 three elementary schools and one administration building were renovated, heating systems were brought up to date with energy efficient heat pumps thus lowering the amount of propane used in the targeted schools. A wind generator was installed at one of our remote elementary schools and contributes now to lower the energy usage in this school.

School District No. 85 has initiated a tracking system to document the usage of maintenance and transportation vehicles and gas and diesel consumption information is now available on each vehicle. With regular fleet maintenance, continued fleet driver training and the purchase of more fuel efficient vehicles when needed we hope to continue in our efforts to reduce energy consumption.

Baselines for four of our larger schools were set by B.C. Hydro in 2011. In 2010 most of our buildings did see a decrease in use, with continued encouragement by our leadership and a gradual change in behaviour with respect to awareness of energy usage by students and staff, we expect that this trend will continue.

Milestones for education and community engagement in 2010 were:

- 100 % of staff were trained in web-conferencing and 10% of staff were trained in video conferencing
- web cameras and conference software were installed on all staff/office computers
- school district transportation has been made available for district meetings
- meeting attendees have been encouraged to not use styro foam cups or plastic non consumable water bottles
- 12 staff members attended a "Going Wild" workshop
- the public has been made aware of our District wide "Anti Idling" campaign

2010 Greenhouse Gas Emissions

Greenhouse Gases in Tonnes

<u>Scope 1 (Direct) Emissions</u>	<u>Measure</u>	<u>Quantity</u>	<u>CO2</u>	<u>BioCO2</u>	<u>CH4</u>	<u>N2O</u>	<u>tCOxe1</u>
Mobile Combustion (Fleet)	Litres	70,650.04	170.60	8.75	0.01	0.01	182.18
Stationary Combustion, Reported	Gigajoules	7,944.45	473.97	0.00	0.01	0.03	484.72
<u>Scope 2 (Indirect) Emissions</u>							
Purchased Energy, Reported	Gigajoules	15,343.20	105.87	0.00	0.00	0.00	105.87
<u>Scope 3 (Business Travel and Office Paper) Emissions</u>							
Office Paper	Packages	2,267.00	15.14	0.00	0.00	0.00	15.14
Total Emissions, Calendar Year 2010			765.58	8.75	0.02	0.04	787.92
Carbon Neutral or Offset Exempt			122.03	8.75	0.01	0.00	132.22
Total for Offsets			643.55	0.00	0.01	0.04	655.70

Offsets Applied to Become Carbon Neutral in 2010

The total emission offsets have been applied to become carbon neutral for 2010.

As required by section 5 of the Carbon Neutral Government Regulation, 70,650.04 litres (170.60 tonnes) of CO2 emissions resulting from the operation of school buses were reported as part of our greenhouse gas emissions profile in 2010. However, they were not offset as they are out-of-scope under section 4 (2)© of the Carbon Neutral Government Regulation.

Emissions Reduction Activities

Actions Taken to Reduce Greenhouse Gas Emission in 2010

Three schools and one administration office received HVAC upgrades, heat pumps now help to regulate the heating of these locations and provide a cleaner atmospheric environment for students and staff. The Environmental Educational Steering Committee continues to make great strides in educating adults and students.

Plans to Continue Reducing Greenhouse Gas Emissions 2011 – 2013

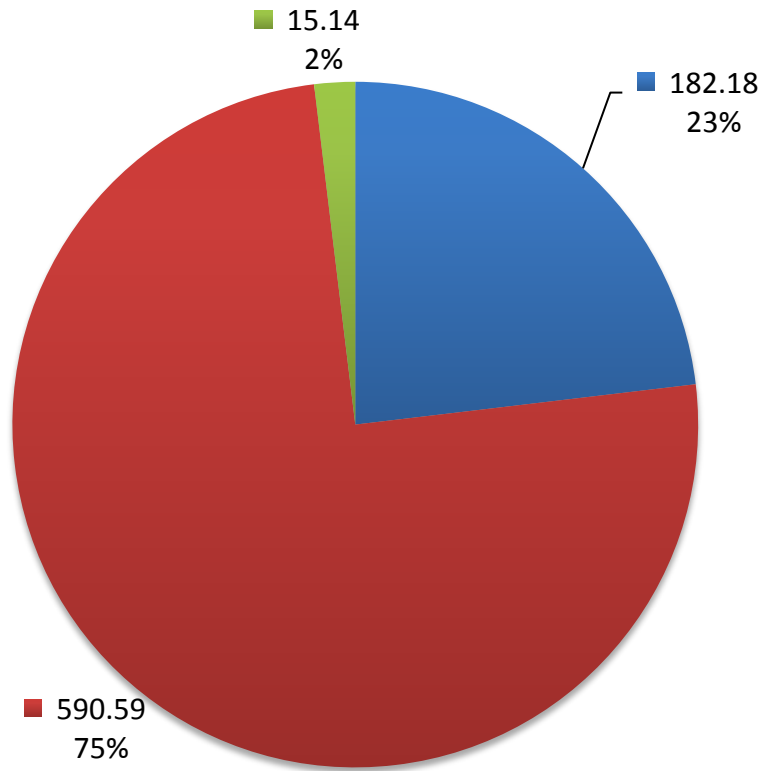
Focusing on becoming carbon neutral has changed the way School District No. 85 looks at our energy consumption. We are being made more aware of our consumption and will in the future take further steps to reduce energy consumption in all of our buildings. The purchase of offsets from the Pacific Carbon Trust will definitely be a budget concern as those funds could be allocated to projects that would further reduce our energy consumption. In future years, early education of our students and staff will help to reduce the emission of greenhouse gases. In the future School District No. 85 will be considering ways to upgrade our facilities that will reflect our commitment to reduce energy costs.



John Martin
Secretary - Treasurer

School District No. 85 Vancouver Island North

Greenhouse Gas Emissions by Source for the 2010 Calendar Year (tCO₂e*)



Total Emissions: 787.91

- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion and Electricity (Buildings)
- Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2010

Total offsets purchased: **655.69**. Total offset investment: **\$16,392.25**. Emissions which do not require offsets: **132.22** **

*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.

School District No. 85 Vancouver Island North - 2010 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 (as of 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	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	10	% of vehicles are fuel- efficient models	tracking usage of maintenance and transportation vehicles	continue to track usage of vehicles	2011	2013
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	5	% of vehicles down-sized since start year indicated	replaced 2 vehicles	replace 7 vehicles with fuel efficient models	2011	2013
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	regular fleet maintenance is on going	to keep on providing regular fleet maintenance	2009	No End Date (Continuous)
Behaviour change program							
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	100	% of current drivers are trained	training provided to drivers	training to be on going	2009	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress			reminders for staff to carpool for various meetings	on going reminders re carpooling	2010	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress			reminders to staff to walk or ride to work if possible	on going reminders re walking/riding to work	2009	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							
Enrol in a building energy benchmarking program (e.g., GREEN UP)	Ongoing/In Progress			enrolled by B.C. Hydro	to work with B.C. Hydro re district energy consumption	2010	No End Date (Continuous)
Owned buildings							
Establish energy performance baseline for owned buildings	In Development				BC Hydro to provide hydro baselines for all buildings	2011	No End Date (Continuous)
Incorporate integrated design process into new construction or during renovations of owned buildings	Ongoing/In Progress	20	% of buildings built or renovated since start year indicated used the integrated design process	three elementary school and one administration building renovated	renovations are planned for one elementary school	2011	2011
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	Ongoing/In Progress			retrofitted one elementary school	retrofitting one elementary and possible two more schools	2009	2012
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress	30	% of owned buildings have undergone energy retrofits since start year indicated	retrofitted one elementary school	retrofitting one elementary and possible two more schools	2011	2012
Retrofitting owned buildings							

School District No. 85 Vancouver Island North - 2010 Carbon Neutral Action Report

Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	30	% of retrofits since start year indicated had heating, cooling, and ventilation systems upgrades	retrofitted one elementary school	retrofitting one elementary and possible two more schools	2011	2012
Upgrade lighting systems during retrofits	Ongoing/In Progress	30	% of retrofits since start year indicated had lighting systems upgrades	retrofitted one elementary school	retrofitting one elementary and possible two more schools	2011	2013
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	30	% of retrofits since start year indicated had control system upgrades or adjustments	retrofitted one elementary school	retrofitting one elementary and possible two more schools	2011	2013
Install an on-site renewable energy demonstration project	Completed in 2010	1	% of retrofits since start year indicated had on-site renewable energy components	installed wind generator at elementary schools	possible installation of solar panels at various schools	2010	2013
Leased buildings							
Establish energy performance baseline for leased buildings	In Development	100	% of leased buildings have an established energy performance baseline		set baselines for leased buildings	2013	No End Date (Continuous)
Develop a green lease policy that requires green features to conserve energy be included in all lease negotiations	In Development	0	% of leases negotiated since start year indicated have included green features		to review and include on renewal of lease	2012	No End Date (Continuous)
IT power management							
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	100	% of computers are ENERGY STAR rated	replaced computers as needed	to continue to replace computers as needed	2009	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	100	% of fridges are ENERGY STAR rated	none	replace as needed	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			replaced out dated stoves and fridge	replace as needed	2009	No End Date (Continuous)
Replace desk lamp incandescent bulbs with compact fluorescent (CFL) bulbs or source more efficient desk lamps for future purchases	Ongoing/In Progress			o	replace as needed	2009	No End Date (Continuous)
Behaviour change program							
Ask staff to unplug electrical equipment or switch off power bars when not in use	In Development				reminders to be sent to staff re energy conservation	2011	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	In Development				reminders to be sent to staff re energy conservation	2011	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	In Development				reminders to be sent to staff re energy conservation	2011	No End Date (Continuous)

School District No. 85 Vancouver Island North - 2010 Carbon Neutral Action Report

Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Provide reminders for turning off lights (e.g., signs, stickers, messages)	In Development				reminders to be placed throughout District	2011	No End Date (Continuous)
Supplies (Paper)							
Paper Type							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	25	% of total paper purchased contains 30% recycled content	paper purchasing monitored	to keep on monitoring paper purchasing	2009	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	2	% of total paper purchased contains 100% recycled content	paper purchasing monitored	to keep on monitoring paper purchasing	2009	No End Date (Continuous)
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development				to purchase software	2012	No End Date (Continuous)
Use electronic document library for filing common documents	Completed in 2010			documents made available on School District website		2010	No End Date (Continuous)
Post materials online that were previously printed	Completed in 2010			documents made available on School District website		2010	No End Date (Continuous)
Behaviour change program							
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			encouraged power point presentations at meetings	to aim for paper less meetings when possible	2010	No End Date (Continuous)

School District No. 85 Vancouver Island North - 2010 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 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 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Business Travel							
Virtual meeting technology							
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Completed in 2010	90	% of computers have web-conferencing software installed	web conference software installed on all staff computers		2010	2010
Make desktop web-cameras available to staff	Completed in 2010	100	% of staff have access to a desktop web-camera	web cameras installed on all staff/office computers		2010	2010
Behaviour change program							
Train staff in web-conferencing	completed in 2010	100	% of staff are trained web-conferencing	staff shown how to web conference		2010	2010
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Completed in 2010	10	% of staff are trained in video-conferencing or have access to technical support	staff shown how to web conference		2010	2010
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			encourage staff to attend web meetings/seminars	to keep on encouraging staff to use virtual meetings	2010	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			school district transportation made available for district meetings	to continue to provide bus transportation when required	2010	No End Date (Continuous)
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)	Ongoing/In Progress			none	none	2010	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			formed District Sustainability Committee, Green Teams or Environmental Clubs at schools	to encourage reducing number of garbage cans, eliminate use of styrofoam, disposable plates etc. at district meetings and professional development days, encourage composting of lunch waste	2009	No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress			initiated grants to schools for pursuing Environmental Action Projects , allocated funds to a Youth Environmental Forum	will be allocating resources to Environmental /sustainability Action Projects again and a second Youth Environmental Forum	2010	No End Date (Continuous)
Awards/Recognition							
Establish a sustainability/green awards or recognition program	In Development				a number of schools will institute Sustainability/Green Awards for students and the District Environmental Steering Committee is looking into establishing District awards	2010	No End Date (Continuous)
Staff Professional Development							
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress			"Going Wild" workshop in May attended by 12 staff	District wide student and staff workshops on sustainability, with no disposable dishes or water bottles being used; planning for the EmpowerED: Connecting Students for the Environment Conference	2010	No End Date (Continuous)

School District No. 85 Vancouver Island North - 2010 Carbon Neutral Action Report

Action	Status (as of 12/31/10)	Performance to Date (as of 12/31/10)	Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
Client/public awareness/education						
Provide education to clients/public about the science of climate change	In Development		Public made aware of District wide "Anti Idling" campaign	reminder to public	2010	No End Date (Continuous)
Provide green tips on client/public website or in newsletters	In Development			Information re: composting and recycling to be provided to public through school websites and newsletters	2011	No End Date (Continuous)