

Executive Summary

On behalf of Campbell River School District, I am pleased to submit the 2012 Carbon Neutral Action Report. This report provides an overview of the actions taken by our organization to reduce greenhouse gas emissions.

As evidenced by our Strategic Plan, an *“Expanded and Purposeful Environmental Ethic”* is integral to the objectives of Campbell River School District. The Environmental Responsibility Policy, adopted in 2009, articulates the Board of Education’s expectations to consider environmental impacts in the delivery of curriculum and daily operations, and to integrate environmental education within the school setting. School District 72 Sustainability Guidelines and the School District 72 Strategic Energy Management Plan provide the structure to enable continuous improvement in our environmental stewardship.

Utilities required for the operation of buildings is the largest source of greenhouse gas emissions for School District 72. Energy retrofit projects in 2012 included upgrades to high efficiency condensing boilers, improvements to building controls and lighting retrofits. Compared to 2011, the energy reduction from these projects contributed to a 3.8% reduction of our organization’s overall energy consumption per square meter.

Mobile consumption (fleet), largely due to school bus fleet operations, was 14.2% of total greenhouse gas emissions in 2012. Compared to 2011, the slight reduction in overall emissions from this source is attributed to lower maintenance standards of playing fields being somewhat offset by increases in service standards for bussing of students.

Office paper was responsible for 2.2% of greenhouse gas emissions in 2012. The increase in 2012 (relative to 2011) is attributed to cyclical purchasing by schools.

As a community leader in environmental sustainability, School District 72 maintains a number of partnerships. For example, we were nominated to the Community Energy Association, with the City of Campbell River, for a 2012 Climate & Energy Action Award for collaboration between the two organizations. Leveraging our energy manager contract with BC Hydro PowerSmart, workshops are routinely made available to students and teachers to build engagement towards sustainability. Most recently, School District 72 initiated a conversation with BC Hydro to identify and develop educational opportunities related to the replacement of the John Hart Dam. In short, the staff and students of School District 72 continue to display passion for their community and environment.



Tom Longridge

Superintendent of Schools

School District 72 Campbell River - 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
Mobile Fuel Combustion (Fleet and other)					
Behaviour change program					
Provide fleet driver training to reduce fuel use	Ongoing/In Progress	Fleet Driver Training is provided annually to all Bus Drivers and the Bus Drivers' Manual includes driving tips to reduce fuel consumption. Driver training is provided to all employees upon hiring. Annual refresher training on winter driving also promotes benefits of fuel conservation. Monitoring of fuel consumption provides feedback on effectiveness of driver training.	Fleet Driver Training is provided annually to all Bus Drivers and the Bus Drivers' Manual includes driving tips to reduce fuel consumption. Driver training is provided to all employees upon hiring. Annual refresher training on winter driving also promotes benefits of fuel conservation. Monitoring of fuel consumption provides feedback on effectiveness of driver training.	2008	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	The School District 72 Bus Driver Manual encourages drivers to avoid idling more than three minutes. Most school properties have "anti-idling" signage. School newsletters to parents periodically include "anti-idling" reminders.	The School District 72 Bus Driver Manual encourages drivers to avoid idling more than three minutes. Most school properties have "anti-idling" signage. School newsletters to parents periodically include "anti-idling" reminders.	2008	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress	Carpooling, when practicable for operational requirements, is a behavioural norm in School District 72.	Carpooling, when practicable for operational requirements, is a behavioural norm in School District 72.	2008	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress	When practicable, water taxi or float plane are used as alternatives to fleet vehicles when travelling to outlying schools (Quadra Island, Cortes Island, Read Island). For other sites, however, requirement to carry tools, equipment and supplies precludes a cost-effective alternative to fleet vehicles.	When practicable, water taxi or float plane are used as alternatives to fleet vehicles when travelling to outlying schools (Quadra Island, Cortes Island, Read Island). For other sites, however, requirement to carry tools, equipment and supplies precludes a cost-effective alternative to fleet vehicles.	2008	No End Date (Continuous)
Other Mobile Fuel Combustion Actions					
Reduction in grasscutting frequency at former Evergreen school site, resulting in less use of tractor.	Completed (in Reporting Year)	Based on affordability of maintaining the playing field, grasscutting service at former Evergreen school site was reduced to minimal levels. Reduced demand for the lawnmower tractor is resulting in less carbon emissions.		2012	No End Date (Continuous)
Vehicle fuel efficiency					
Replace vehicles with more fuel-efficient models	Ongoing/In Progress	Two maintenance vehicles replaced with newer models	No specific steps planned at this time.	2008	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	Two maintenance vehicles replaced with newer models. Opportunities for "right-sizing" were considered.	No specific steps planned at this time.	2008	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	Vehicle maintenance is performed in accordance with manufacturers' recommendations and Commercial Vehicle Inspection Program (CVIP) regulatory requirements. Monitoring of fuel consumption provides feedback on effectiveness of maintenance program.	Vehicle maintenance is performed in accordance with manufacturers' recommendations and Commercial Vehicle Inspection Program (CVIP) regulatory requirements. Monitoring of fuel consumption provides feedback on effectiveness of maintenance program.	2008	No End Date (Continuous)
Stationary Fuel Combustion, Electricity					
Behaviour change program					
Help staff reduce personal energy use through "workstation tune-ups"	Ongoing/In Progress	Workstation tune-ups are managed centrally by IT staff, and performed after-hours using the computer network.	Workstation tune-ups are managed centrally by IT staff, and performed after-hours using the computer network.	2008	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress	All staff are encouraged to unplug electrical equipment when not in use.	All staff are encouraged to unplug electrical equipment when not in use.	2008	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress	All staff are encouraged to unplug electrical equipment when not in use.	All staff are encouraged to unplug electrical equipment when not in use.	2008	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	Ongoing/In Progress	Where practicable, staff are encouraged to use air dry settings on	Where practicable, staff are encouraged to use air dry settings on	2008	No End Date

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
	Progress	dishwashers.	dishwashers.		(Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress	Through the use of Digital Direct Controls, energy use after hours is minimized. Staff have little control over energy use outside of regular business hours.	Through the use of Digital Direct Controls, energy use after hours is minimized. Staff have little control over energy use outside of regular business hours.	2008	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress	Most School District No. 72 facilities are single story. Where elevators are required, use is restricted to wheelchairs and cartage.	Most School District No. 72 facilities are single story. Where elevators are required, use is restricted to wheelchairs and cartage.	2008	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress	Most facilities use occupancy sensors. In isolated cases where occupancy sensors are not installed, stickers are provided by the light switch.	Most facilities use occupancy sensors. In isolated cases where occupancy sensors are not installed, stickers are provided by the light switch.	2008	No End Date (Continuous)
Promote hot water conservation	Ongoing/In Progress	All staff are encouraged to conserve hot water.	All staff are encouraged to conserve hot water.	2008	No End Date (Continuous)
IT power management					
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	School District No. 72 uses power management software to shut down computers outside of regular business hours.	School District No. 72 uses power management software to shut down computers outside of regular business hours.	2008	No End Date (Continuous)
Implement server virtualization	Ongoing/In Progress	Server virtualization is used throughout School District No. 72	Server virtualization is used throughout School District No. 72	2008	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	Auto-sleep settings are applied on all computer monitors and CPUs	Auto-sleep settings are applied on all computer monitors and CPUs	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	Where feasible, stand-alone printers, copiers, and/or fax machines have been removed.	Where feasible, stand-alone printers, copiers, and/or fax machines have been removed.	2008	No End Date (Continuous)
Apply auto-sleep settings on printers, fax machines, and/or multi-function devices	Ongoing/In Progress	Auto-sleep settings are applied on all printers, fax machines, and/or multi-function devices.	Auto-sleep settings are applied on all printers, fax machines, and/or multi-function devices.	2008	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	In cases where thin-clients are not practicable, computers are replaced with ENERGY STAR models during regular computer upgrades	In cases where thin-clients are not practicable, computers are replaced with ENERGY STAR models during regular computer upgrades	2008	No End Date (Continuous)
Other Stationary Fuel Combustion					
Conduct energy conservation workshops for staff and students	Completed (in Reporting Year)	<p>Three energy conservation workshops were held in 2012:</p> <ol style="list-style-type: none"> 1. "Community Champions" explores the concepts of social responsibility and sustainability in the classroom, school and community. Forty students attended this 2-hour workshop. 2. "Energy Explorers" introduces young children to energy conservation and caring for the Earth. Ten teachers attended this 1-hour workshop. 3. "Energy Investigations" complements the electricity component of Grade 9 Science curriculum and supports the teaching of energy use and conservation. Three teachers attended this 1-hour workshop. <p>An initial meeting with BC Hydro to explore energy and environmental awareness opportunities related to the John Hart Dam construction project. Based on identified opportunities, further meetings are planned for 2013.</p>		2012	2012
Owned buildings					
Establish energy performance baseline for owned buildings	Ongoing/In Progress	The School District 72 Energy Performance Baseline is documented in the Strategic Energy Management Plan.	The School District 72 Energy Performance Baseline is documented in the Strategic Energy Management Plan.	2009	No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
		<p>The Building Energy Performance Baseline (BEPI) of 0.93 GJ(e) per square meter represents the 4-year average for the period 2005-2008. For 2012, the weather normalized BEPI target was 0.89 GJ(e) per square meter. For 2011, the BEPI for School District No. 72 was 0.80 GJ(e) per square meter. For 2012, the BEPI for School District No. 72 was 0.77 GJ(e) per square meter.</p> <p>As a result of continuous improvements in energy efficiency, School District No. 72 has established a new energy performance baseline for 2013 of 0.87 GJ(e) per square meter; equivalent to 13.61 GJ(e) per student FTE.</p>	<p>The Building Energy Performance Baseline (BEPI) of 0.93 GJ(e) per square meter represents the 4-year average for the period 2005-2008. For 2012, the weather normalized BEPI target was 0.89 GJ(e) per square meter. For 2011, the BEPI for School District No. 72 was 0.80 GJ(e) per square meter. For 2012, the BEPI for School District No. 72 was 0.77 GJ(e) per square meter.</p> <p>As a result of continuous improvements in energy efficiency, School District No. 72 has established a new energy performance baseline of 0.87 GJ(e) per square meter; equivalent to 13.61 GJ(e) per student FTE.</p>		
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)
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	<p>Project initiated in 2011 and completed in 2012 include re-lamping of 4 schools (477,000 KwHr/yr savings in electricity) and Timberline/NIC HVAC Upgrade - Phase 1 (1,678 GJ/yr savings in natural gas).</p> <p>Completed projects in 2012 included Replacement of 388 PCs with Thin Clients, Timberline/NIC HVAC Upgrade - Phase 2, replacement of 18 leased multifunction devices with new models, minor repairs to building envelopes to reduce air leakage. These projects have resulted in savings of approximately 38,700 KwHr/yr in electricity and 563 GJ/yr in natural gas.</p> <p>Projects initiated in 2012 included re-lamping of 7 sites, Timberline/NIC HVAC Upgrade - Phase 3, on-site coordination for installation of two Electric Vehicle Charging Stations (by North Island College and City of Campbell River). Once completed in 2013, these projects will result in an overall energy reduction of 471,000 KwHr/yr in electricity and 114 GJ/yr in natural gas.</p>	In addition to completion projects initiated in 2012, projects planned for 2013 include interior re-lamping of four sites and exterior re-lamping of all sites (including parking lot lighting). Estimated energy savings for interior re-lamping is 46,000 KwHr/yr.	2011	2013
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	Ongoing/In Progress	Refrigerant management is an integral part of preventive maintenance routines used by School District No. 72.	Refrigerant management is an integral part of preventive maintenance routines used by School District No. 72.	2008	No End Date (Continuous)
Planning/management					
Reduce office space (square meters) per employee	Ongoing/In Progress	Two surplus portable classrooms, located at Ecole Willow Point, were sold in 2012.	Subject to the outcome of the School District 72 strategic plan update, a review of infrastructure requirements is planned.	2008	No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	The requirement for additional metering is included in the School District 72 Strategic Energy Management Plan. BC Hydro Smart Meters have been installed, but the user portal has not yet been activated.	The requirement for additional metering is included in the School District 72 Strategic Energy Management Plan. BC Hydro Smart Meters have been installed, but the user portal has not yet been activated.	2008	No End Date (Continuous)
Retrofit details for owned buildings					

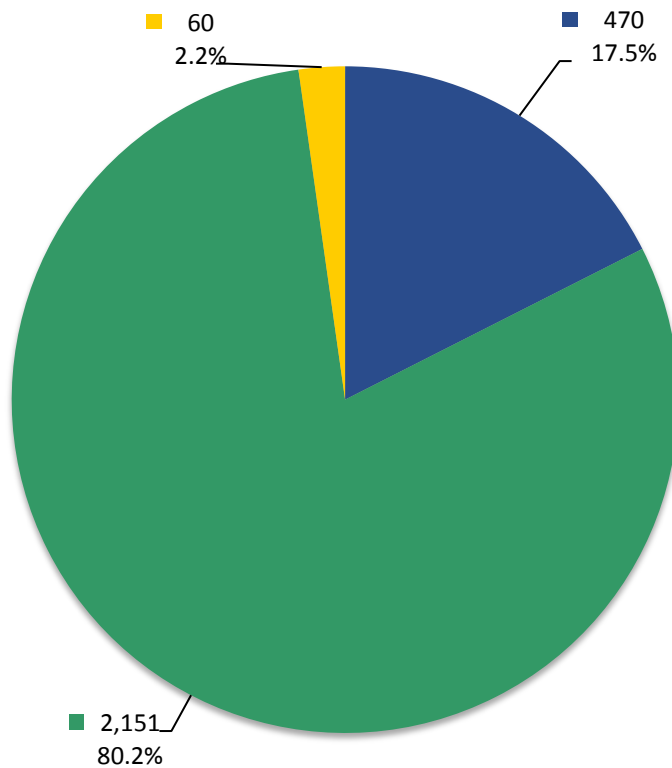
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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	Opportunities for mechanical system upgrades are considered when performing building renovations.	Opportunities for mechanical system upgrades are considered when performing building renovations.	2008	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	Opportunities for lighting system upgrades are considered when performing building renovations.	Opportunities for lighting system upgrades are considered when performing building renovations.	2008	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	Opportunities for lighting system upgrades are considered when performing building renovations.	Opportunities for lighting system upgrades are considered when performing building renovations.	2008	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	Opportunities for improving building insulation are considered when performing building renovations.	Opportunities for improving building insulation are considered when performing building renovations.	2008	No End Date (Continuous)
Supplies (Paper)					
Behaviour change program					
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	All school secretaries have received training in MS Sharepoint.	All school secretaries have received training in MS Sharepoint.	2011	No End Date (Continuous)
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress	All staff are encouraged to hold paperless meetings or presentations	All staff are encouraged to hold paperless meetings or presentations	2010	No End Date (Continuous)
Electronic media in place of paper					
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	School District No. 72 is transitioning to MS Sharepoint.	Complete transition to MS Sharepoint	2011	2013
Use electronic document library for filing common documents	Ongoing/In Progress	School District No. 72 is transitioning to MS Sharepoint.	Complete transition to MS Sharepoint	2010	2013
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress	School District No. 72 completed the transition to electronic payroll notifications in 2011.	School District No. 72 completed the transition to electronic payroll notifications in 2011.	2011	No End Date (Continuous)
Paper Type					
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	As budget allow, we encourage all sites to increase percentage of post-consumer recycled paper.	As budget allow, we encourage all sites to increase percentage of post-consumer recycled paper.	2008	No End Date (Continuous)
Purchase 40% post-consumer recycled paper	Ongoing/In Progress	As budget allow, we encourage all sites to increase percentage of post-consumer recycled paper.	As budget allow, we encourage all sites to increase percentage of post-consumer recycled paper.	2008	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	As budget allow, we encourage all sites to increase percentage of post-consumer recycled paper.	As budget allow, we encourage all sites to increase percentage of post-consumer recycled paper.	2008	No End Date (Continuous)
Printer/document settings					
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	Where feasible, all sites are encouraged to use double-sided printing.	Where feasible, all sites are encouraged to use double-sided printing.	2008	No End Date (Continuous)

**School District 72 - Campbell River
Greenhouse Gas Emissions by Source
for the 2012 Calendar Year (tCO₂e*)**



Total Emissions: 2,681

- 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 12:07 PM)

Total offsets required: **2,300**. Total offset investment: **\$57,500**. Emissions which do not require offsets: **381** **

*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.