



SD72- Campbell River - 2011 Carbon Neutral Action Report

Executive Summary

In 2011, SD72 has continued to make progress towards our Carbon Neutral Commitment. We have revisited and refined policy, enhanced our focus groups, furthered partnerships and have grown school-wide initiatives on both the educational as well as the operational side of our organization that move us towards our goals. We continue to work with stakeholders across the district and have evolved a communications plan that clearly articulates our goals and progress in the area of sustainability. In 2011, SD72 had total emissions of 2706 and total offsets of 2338 tonnes.

Referring to 2010 CO₂(e) correction of 29 tonnes, the increase is the result of corrections to utility consumption information received after the reporting deadline. An additional 29 tonnes of carbon offsets were purchased to address this correction.

Actions Taken to Reduce Greenhouse Gas Emissions in 2011

In 2011, School District 72 has taken a number of actions towards reductions in Greenhouse Gas Emissions including: School District No. 72 continued participation in the City of Campbell River's Task Force on Energy and Emissions; continued leadership by the District's Environmental Awareness Focus Group; energy audits and awareness activities in all schools; lighting retrofits; boiler replacements using condensing boiler technology; DDC integration to all FDK modulars; workshops for students through BC Energy Conservation Programs and other; establishment of SD72 Sustainability Guidelines; introduction of the School Sustainability Plans and related grants; improved communications throughout the district regarding our sustainability initiatives and commitments; continued upgrades to hardware and software in IT to promote energy savings; significant increases in recycled content office paper use; lighting upgrades and building systems retrofits.

In 2011, SD72 further developed our partnership in the BC Hydro Energy Managers Program. We held our annual Energy Management Assessment with BC Hydro and that recognized significant progress towards short, medium and long-term goals for energy conservation in the district. During the 2011/12 Energy Management reporting period, permanent energy savings were equivalent to 1.5 FTE. In addition to the \$100,000 Energy Manager grant received from BC Hydro, approximately \$730,000 in project grants were received from various sources, representing 74% of project costs being externally funded. The Strategic Energy Management Plan is posted to the School District 72 web site: <http://www.sd72.bc.ca/Publications/SD72%20Strategic%20Energy%20Management%20Plan%20March%202012.pdf>

Key Efforts to Reduce Greenhouse Gas Emissions


Behavioural/Educational Projects

- School Sustainability Success Plans complete -18 schools
- School Sustainability Grant project proposals – 10 schools
- SD72 Environmental Regulations approved
- APEGBC/Energy Educators' Network presentation to Timberline Secondary students
- Partnership - City of CR Task Force on Energy & Emissions
- Recipient - City of CR 2011 Sustainability Award for Energy Conservation
- Published - Ops Talk article on Funding for Energy Retrofit Projects
- *Going for Green* SD72 District-wide sustainability contest

- Participation – Science World’s Green Games

Hardwired Projects

- Georgia Park Elementary boiler replacement
- Timberline/NIC HVAC Upgrade
- 2011 Re-lamping Project: 4 schools
- BC Hydro/Phoenix Middle School Bi-level Lighting Pilot Project
- Integration of FDK modulars with DDC systems
- Wind Turbine Study with City of Campbell River (in progress)



Thomas G.S. Longridge,
Superintendent of Schools

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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 (as of 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	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	50	% of vehicles are fuel- efficient models	Purchase of one 2011 model school bus (diesel).	As opportunities exist through fleet acquisition.	Started before 1995	No End Date (Continuous)
Perform regular fleet maintenance specifically to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	continuous.	continuous.	Started before 1995	No End Date (Continuous)
Behaviour change program							
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Ongoing/In Progress			Continue as previous.	Continue as previous.	2010	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress			Continue as previous.	Continue as previous.	2010	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Ongoing/In Progress			Continue as previous.	Continue as previous.	2010	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			Participation in Energy Management Assessment with BC Hydro as part of Energy Managers Program.	Continue participation in Energy Management Assessment with BC Hydro as part of Energy Managers Program.	2010	2013
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	In Development	0	% of buildings have a real time metering system installed	Participated in BC Hydro Smart Meter workshops	Anticipating installation of BC Hydro Smart Meters at all sites - 2012.	2011	2012
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress	22	% of owned buildings have undergone energy retrofits since start year indicated	Lighting upgrades in 8 schools, mechanical system upgrades (boiler replacements) completed in 2 schools. Upgraded roof insulation in one school as part of re-roofing project	Lighting upgrades in 7 sites. Mechanical system upgrades in 1 site. Upgrade roof insulation in 3 schools as part of re-roofing project	2011	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	4	% of retrofits since start year indicated had heating, cooling, and ventilation systems upgrades	Timberline Secondary and Georgia Park Elementary mechanical system upgrade.	Timberline Secondary mechanical system upgrade.	2011	2012
Upgrade lighting systems during retrofits	Ongoing/In Progress	16	% of retrofits since start year indicated had lighting systems upgrades	Lighting upgrades- 8 sites.	Lighting upgrades in 7 sites.	2011	2012
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	2	% of retrofits since start year indicated had control system upgrades or adjustments	None	Upgrade direct digital controls at Timberline Secondary	2011	2012

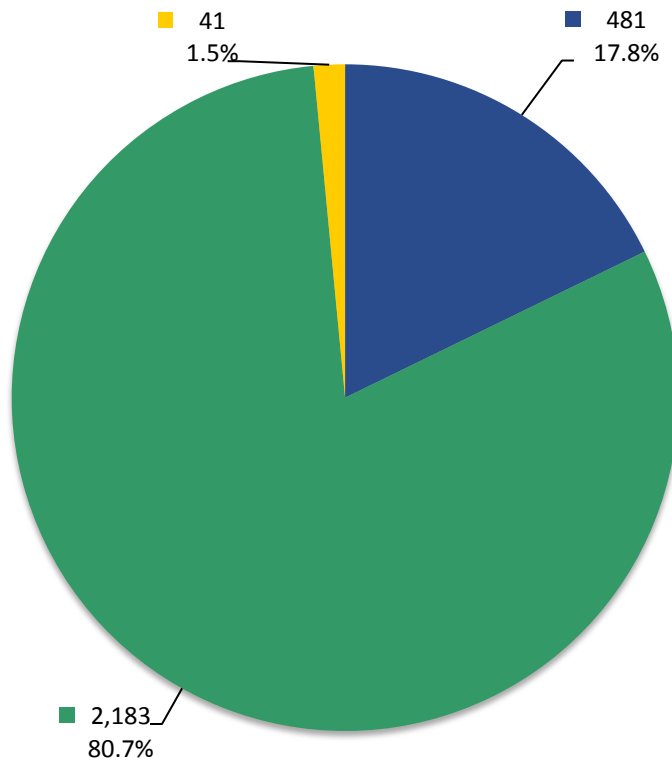
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Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	10	% of retrofits since start year indicated had insulation improvements	Upgrade roof insulation for Quadra Elementary	Upgrade roof insulation for Ecole Des Deux Mondes, Cedar Elementary and Cedar Annex	2011	No End Date (Continuous)
Install an on-site renewable energy demonstration project	Ongoing/In Progress	0	% of retrofits since start year indicated had on-site renewable energy components	Installation of Anemometer on Phoenix Middle School as part of City of CR/SD72 exploration of renewable energy possibilities.	Wind energy feasibility study- monitor wind for two years.	2012	2014
IT power management							
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	0	% reduction in printers, copiers, and/or fax machines since start year indicated	None	Completed Green IT Energy Study	2011	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	2	% of computers are ENERGY STAR rated	None	Completed Green IT Energy Study	2011	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	SD72 "Green" Purchasing Guidelines established 2010.	Continue to replace less efficient models with Energy Saver through natural life-cycle of appliances.	2010	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			As dictated by Green Purchasing Guidelines	Continue to replace less efficient models with Energy Saver through natural life-cycle of appliances.	2010	No End Date (Continuous)
Behaviour change program							
Ask staff to unplug electrical equipment or switch off power bars when not in use	Ongoing/In Progress			Frequent reminders before all breaks. Staff are encouraged to use power-bars. Reminders as part of yearly student energy audits. Any additional efforts outlined in school sustainability report completed annually and submitted to Head Office.	Frequent reminders before all breaks. Staff are encouraged to use power-bars. Reminders as part of yearly student energy audits. Any additional efforts outlined in school sustainability report completed annually and submitted to Head Office.	2010	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	Ongoing/In Progress			Reminders as part of yearly student energy audits. Any additional efforts outlined in school sustainability report completed annually and submitted to Head Office.	Frequent reminders before all breaks. Staff are encouraged to use power-bars. Reminders as part of yearly student energy audits. Any additional efforts outlined in school sustainability report completed annually and submitted to Head Office.	2010	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	Ongoing/In Progress			Reminders as part of yearly student energy audits. Any additional efforts outlined in school sustainability report completed annually and submitted to Head Office.	Frequent reminders before all breaks. Staff are encouraged to use power-bars. Reminders as part of yearly student energy audits. Any additional efforts outlined in school sustainability report completed annually and submitted to Head Office.	2010	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	Ongoing/In Progress			Reminders as part of yearly student energy audits. Any additional efforts outlined in school sustainability report completed annually and submitted to Head Office.	Frequent reminders before all breaks. Staff are encouraged to use power-bars. Reminders as part of yearly student energy audits. Any additional efforts outlined in school sustainability report completed annually and submitted to Head Office.	2010	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Reminders as part of yearly student energy audits. Any additional efforts outlined in school sustainability report completed annually and submitted to Head Office.	Frequent reminders before all breaks. Staff are encouraged to use power-bars. Reminders as part of yearly student energy audits. Any additional efforts outlined in school sustainability report completed annually and submitted to Head Office.	2010	2014
Supplies (Paper)							
Paper Type							

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Action	Status (as of 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	40	% of total paper purchased contains 30% recycled content	We encourage all sites to increase volume and % of recycled content office paper used.	As budgets allow.	2010	No End Date (Continuous)
Purchase 40% post-consumer recycled paper	Ongoing/In Progress	21	% of total paper purchased contains 40% recycled content	We encourage all sites to increase volume and % of recycled content office paper used.	As budgets allow.	2011	No End Date (Continuous)
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	20	% of network printers or photocopiers are set to automatic double-sided	complete district-wide IT study	convert to double-sided where possible.	2010	No End Date (Continuous)
Reduce default margin size in standard document templates (e.g., letters, briefing notes, forms, etc.)	Ongoing/In Progress			As part of SD72 Sustainability Guidelines- adopted 2011	Encourage use of Sustainability Guidelines.	2011	No End Date (Continuous)
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development	0	% of staff workstations with software installed	Transition to MS Sharepoint.	Finalize transition to MS Sharepoint.	2011	2012
Use electronic document library for filing common documents	In Development				Finalize transition to MS Sharepoint.	2010	2012
Post materials online that were previously printed	Ongoing/In Progress	100		School and District Newsletters all provided electronically.	Continue to encourage electronic formats for mass-communication.	2010	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Completed in 2011			Available to all staff.	Continue to encourage electronic formats for paystubs.	2010	2012
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development	10	% of staff currently have received collaborative software training	Continue transition to MS Sharepoint.	Transition all staff to MS Sharepoint.	2011	2012
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	Ongoing/In Progress			agendas/minutes provided electronically.	Continue to promote 'paperless meetings'.	2010	No End Date (Continuous)
Encourage re-use of scrap paper	Ongoing/In Progress			where appropriate.	where appropriate.	Started before 1995	No End Date (Continuous)

**School District 72 - Campbell River
Greenhouse Gas Emissions by Source
for the 2011 Calendar Year (tCO₂e*)**



Total Emissions: 2,706

- 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 2011 (Generated May 18, 2012 12:31 PM)

Total offsets required: **2,338**. Total offset investment: **\$58,450**. Emissions which do not require offsets: **367** **

*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.