

SCHOOL DISTRICT 69 (Qualicum)
2010 Carbon Neutral Action Report

Executive Summary:

In 2007/08, the Board engaged on an appreciative inquiry process to develop the Board's vision, mission statement and strategic plan. The process involved members from both within and outside of our education community. One of the key priorities, one that was strongly promoted by our students, was environmental sustainability. In support of that priority, the Board has committed to

- A coherent approach to planning and learning that engages all members of the school district community and enables us to act upon our shared responsibility for environmental sustainability
- Consider projects and initiatives addressing energy conservation, greenhouse gas reduction and climate change for our facilities

Energy conservation has been a goal for the district for many years. Our operations and maintenance department has made that a priority in implementing controls for heat and light, retrofits for lighting, replacing plumbing fixtures with low flow units. Such actions are imbedded in the day to day operation of our District.

2010 Greenhouse Gas Emissions:

Total emissions for the calendar year 2010 were 2200.82 CO₂e.

Offsets Applied to Become Carbon Neutral in 2010:

The District has paid \$42,676.50 for the purchase of carbon offsets in 2010. The District maintains a bus fleet for which offsets were not purchased. As required by section 5 of the Carbon Neutral Government Regulation, 491.11 tonnes CO₂e of emissions resulting from the operation of school buses were reported as part of our greenhouse gas emissions for 2010. 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:

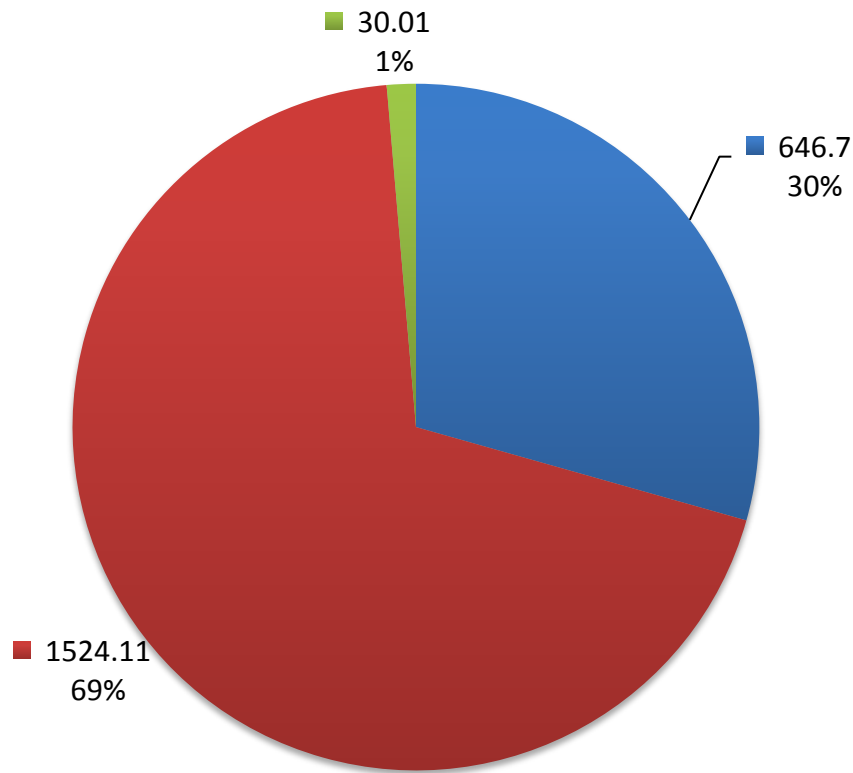
In 2010, the District focused on paper consumption. It has moved to e-payslips for all of its employees. All Board policies are posted online and paper copies are no longer distributed. Our schools distributed newsletters electronically. And our Canadian Union of Employees Local has also gone to e-newsletters as well. We have undertaken a review of printer vs copier use with the objective to reduce the number of printers in our District.

Future plans include maintaining our current practices of replacing existing units with more environmentally responsible units. This includes lighting replacement, plumbing replacement with low flow units, purchase of propane fuelled buses and vehicles as opposed to diesel, exploration of use of solar for heating and power.

The greater challenge will be behavior change, an area which will occupy our focus for the next few years.

School District 69 (Qualicum)

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



Total Emissions: 2200.82

- 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: **1707.06**. Total offset investment: **\$42,676.50**. Emissions which do not require offsets: **493.76** **

*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 Government Neutral 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 69 (Qualicum) - 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	11	% of vehicles are fuel- efficient models	Replaced one diesel bus with propane unit	Continue replacing with propane buses	2005	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	11	% of vehicles down-sized since start year indicated	Replaced 84 passenger bus with 72 passenger bus	Continue to replace 84 passenger buses with smaller units	2009	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	B service at 5,000 km; A service at 10,000 km; change oil and filters on all transmissions at 40,000 km; oil sent to be tested to estimate for wear		Started before 1995	No End Date (Continuous)
Behaviour change program							
Provide fleet driver training to reduce fuel use	Ongoing/In Progress			SmartFleet bookelts available to staff	Recommended to CUPE pro-d committee	2008	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress			Co-ordination of custodial fly crew for single vehicle use; reduction in number of fleet vehicles	Continuing	2010	No End Date (Continuous)
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							
Reduce office space (square meters) per employee	In Development			Planning to close unused classrooms for 2011/12; planning construction of new facility to combine maintenance and transportation services	Closure of surplus classrooms; completion of maintenance/transportation facility	2011	2011
Owned buildings							
Establish energy performance baseline for owned buildings	In Development	0	% of owned buildings have an established energy performance baseline	N/A	Working with BC Hydro to establish baseline energy consumption	2011	2013
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	In Development	0	% of owned buildings are certified LEED NC Gold or LEED NC Platinum	Planning for construction of multi-agency facility	Construction of facility and subsequent LEEDS audit	2011	2012
Incorporate integrated design process into new construction or during renovations of owned buildings	Completed in 2010	0	% of buildings built or renovated since start year indicated used the integrated design process	Integrated design process complete for construction of multi-agency facility	No further construction	2010	2010
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress			Planning for solar hot water project at small, isolated school	Completion of installation	2011	2011
Upgrade lighting systems during retrofits	Ongoing/In Progress	73	% of retrofits since start year indicated had lighting systems upgrades	Completion of lighting retrofits in 11 of 15 schools	Continuation of retrofits	2009	No End Date (Continuous)

School District 69 (Qualicum) - 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/adjust control systems during retrofits	Ongoing/In Progress			Maintenance	Ongoing review and maintenance	2009	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	In Development			Planning for insulation improvement at small, isolated school	Completion of installation	2011	2012
Install an on-site renewable energy demonstration project	Ongoing/In Progress			Planning for solar hot water project at small, isolated school	Completion of installation	2011	2011
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	90	% of computers shut down automatically outside of regular business hours	ongoing installation	completion	2008	2011
Implement server virtualization	Ongoing/In Progress	15	% of servers have been virtualized since start year indicated			2008	2012
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	In Development			Printer survey conducted	Evaluation of survey and cost of implementation	2010	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	50	% of devices have auto-sleep settings applied	Established as a standard	Replacement machines will include this feature	2009	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	80	% of computers are ENERGY STAR rated	Ongoing	Ongoing	2008	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	80	% of fridges are ENERGY STAR rated	Replacements will include this feature	Ongoing program	2007	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			Replacements will include this feature	Ongoing program	2007	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			Limited number of desk lamps. District purchases CFL bulbs only	District will purchase only CFL bulbs	2009	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			Staff meeting item	Continue to highlight	2010	No End Date (Continuous)
Encourage use of stairs instead of elevators	Ongoing/In Progress			Elevators are limited to use by students in need of assistance	Ongoing	2007	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Posters in place by photocopiers	Ongoing	2010	No End Date (Continuous)
Promote hot water conservation	In Development			Planning for solar hot water project	Completion of project	2011	2011
Supplies (Paper)							
Paper Type							

School District 69 (Qualicum) - 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
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	6	% of total paper purchased contains 30% recycled content	Print study completed	Continue to encourage use of recycled paper	2010	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	In Development						
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	Print study completed	Share results and work on culture shift to fewer printers	2010	2013
Apply "print and hold" settings to networked printers to eliminate unclaimed print jobs	In Development	10	% of network printers have 'print and hold' settings applied	All multi-function devices which are capable have it installed	staff training	2010	2012
Reduce default margin size in standard document templates (e.g., letters, briefing notes, forms, etc.)	Ongoing/In Progress	30	% of computers with Office 2007	Installed as requested and as hardware was capable	Continue to install Office 2007/2010	2009	2013
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress			Training	More training	2007	2013
Use electronic document library for filing common documents	Ongoing/In Progress			Mandatory use of SharePoint for some documents	More training and expansion of mandatory use	2008	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			Expanded use of district portal, e-mail, mandatory use of SharePoint for some documents	Continue to work with unions and staff towards acceptance of use of technology to deliver information electronically	2009	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Completed in 2010			All pay information distributed to employees' company e-mail addresses		2009	2010
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	80	% of staff currently have received collaborative software training	Training	Continue training	2009	2012
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	In Development			Some meetings are paperless		2010	2012
Encourage re-use of scrap paper	Ongoing/In Progress					2008	No End Date (Continuous)

School District 69 (Qualicum) - 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.)	Ongoing/In Progress	5	% of computers have web-conferencing software installed	use as available			
Make desktop web-cameras available to staff	Ongoing/In Progress	5	% of staff have access to a desktop web-camera	Use as available			
Behaviour change program							
Train staff in web-conferencing	Ongoing/In Progress	2	% of staff are trained web-conferencing	Part of ongoing professional development for IT staff		2009	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress	2	% of staff are trained in video-conferencing or have access to technical support	Part of ongoing professional development for IT staff		2009	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			When available			