

School District No. 70 – 2011 Carbon Neutral Action Report

Executive Summary

The Alberni School District continues to embrace energy conservation measures, and is dedicated to reducing carbon emissions. We constantly maintain environmental consciousness as buildings are renovated and retrofitted. We continue to complete as many upgrades to lighting, mechanical and control systems as we can, within our budget constraints. During 2011 we began construction of a smaller Leeds Gold certified high school to replace the current high school. Students and staff have taken many initiatives: reducing waste output, actively recycling, composting, purchasing green products, undertaking energy challenges, turning off and unplugging unneeded equipment & lights. We continue to upgrade our fleet, again within budget constraints. This year we managed to replace 4 vehicles with 2 more energy efficient vehicles.

The environmental effects & benefits are being considered in all of our decisions and practices.

2011 Greenhouse Gas Emissions

Mobile fuel combustion:	320.26 tonnes of CO ₂ e
Stationary fuel combustion:	1,461.53 tonnes of CO ₂ e
Stationary combustions:	51.16 tonnes of CO ₂ e
Total emissions:	1,832.95 tonnes of CO ₂ e

Offsets Applied to Become Carbon Neutral in 2011

There was a total of 211 tonnes of CO₂e that did not require offsets. Of this total, 201 tonnes related to the mobile fleet, and 10 tonnes related to emissions from buildings.

There was an adjustment of 1 tonne to 2010 data, resulting in an additional payment to be made.

Emissions Reduction Activities

Actions Taken to Reduce Greenhouse Gas Emissions in 2011

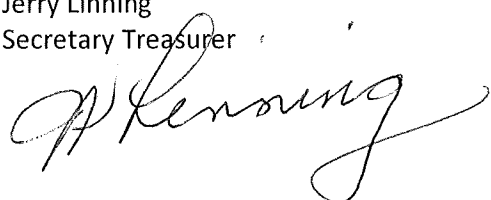
Actions taken include item upgrades / replacement, discontinuing use of rooms, employee training, and incorporating new technology / processes.

Plans to Continue Reducing Greenhouse Gas Emissions 2012-2014

We plan to continue with actions as described above. In addition, we will be replacing our high school in September of 2012 with a new LEEDS Gold certified building. This new high school will reduce our electrical consumption and use less boiler fuels, reducing our greenhouse gas emissions.

We are continuing to explore, with the city of Port Alberni, and Catalyst Paper Corporation, a district energy system plan. The district energy system would recover waste heat from the Catalyst Paper mill. Burning biomass produces the heat, which would be greenhouse gas-neutral. As such, the carbon tax and carbon offsets would not apply to this energy source. The city is applying for funding from the federal ecoEnergy Innovation Initiative, and the Federation of Canadian Municipalities Green Municipal Fund, for this project.

Jerry Linning
Secretary Treasurer



School District 70 Albemi - 2011 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 12/31/11)	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	4	% of vehicles are fuel- efficient models	2 Vehicles purchased to replace 4 vehicles	Purchase fuel-efficient vehicles as money becomes available	2011	2014
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress			Purchase fuel-efficient vehicles as money becomes available	Purchase fuel-efficient vehicles as money becomes available	2011	2014
Perform regular fleet maintenance specifically to improve fuel-efficiency	Ongoing/In Progress	100	% of vehicles are subject to regular maintenance for fuel efficiency	Scheduled maintenance performed, as stipulated in manufacturer's specs.	Scheduled maintenance performed, as stipulated in manufacturer's specs.	2009	No End Date (Continuous)
Replace small maintenance vehicles with more fuel-efficient models	Ongoing/In Progress			Purchase fuel-efficient vehicles as money becomes available	Purchase more vehicles as money becomes available	2010	2014
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Owned buildings							
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Ongoing/In Progress	0	% of owned buildings are certified LEED NC Gold or LEED NC Platinum	Began construction of new high school	New high school slated for completion in 2012	2011	No End Date (Continuous)
Incorporate integrated design process into new construction or during renovations of owned buildings	Ongoing/In Progress			Began construction of new high school	New high school slated for completion in 2012	2011	No End Date (Continuous)
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress	11	% of owned buildings have undergone energy retrofits since start year indicated	New boilers for 3 buildings	Perform more retrofits as money becomes available	2007	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	11	% of retrofits since start year indicated had heating, cooling, and ventilation systems upgrades	New boilers for 3 buildings	Perform more retrofits as money becomes available	2007	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress			Nothing done in 2011	Perform upgrades as money becomes available	2007	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	11	% of retrofits since start year indicated had control system upgrades or adjustments	3 buildings upgraded	Perform upgrades as money becomes available	2007	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress			Nothing done in 2011	Perform upgrades as money becomes available	2007	No End Date (Continuous)
IT power management							
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	85	% of computers shut down automatically outside of regular business hours	All computer lab & library workstations shut off automatically at 6pm. Teacher & Admin workstations are set to sleep when not actively used.	Continue with upgrading computers, as money becomes available	2008	No End Date (Continuous)

School District 70 Albemi - 2011 Carbon Neutral Action Report

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
Implement server virtualization	Ongoing/In Progress	50	% of servers have been virtualized since start year indicated	Most district office servers have been virtualized. School based domain controller servers are physical servers	Technology infrastructure in the new secondary school will be based on virtualized servers & virtualized applications. Anticipated expenditure \$100,000	2010	2014
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	25	% reduction in printers, copiers, and/or fax machines since start year indicated	Deployed multifunction devices (networked printer/scanner) where possible. In process of removing unneeded/obsolete devices	Technology infrastructure in the new secondary school will reduce 40 stand alone printers to 10 printing/scanning stations	2010	2014
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Completed in 2011	100	% of devices have auto-sleep settings applied	All devices set to auto-sleep		2010	2011
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	90	% of computers are ENERGY STAR rated	90% of computers ENERGY STAR rated, 75% of computer monitors. All new devices purchased are ENERGY STAR rated, or equivalent. Workstation components all ENERGY STAR compliant. IT department has designated \$50,000 per year specifically for a "Greening Strategy" to replace hardware with energy efficient devices.	Continuing to replace older workstations with ENERGY STAR devices, continuing to replace older CRT monitors with ENERGY STAR rated monitors.	2010	No End Date (Continuous)
Behaviour change program							
Help staff reduce personal energy use through "workstation tune-ups"	Ongoing/In Progress	5	% of current staff have completed a workstation tune-up	Workstation tune-up sessions undertaken for staff	Continue with workstation tune-up sessions	2011	2014
Supplies (Paper)							
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Completed in 2011	100	% of staff workstations with software installed	Deployment of District and School SharePoint web and secure portal.		2010	2011
Use electronic document library for filing common documents	Ongoing/In Progress			Development of Admin document library and Human Resources forms document library in SharePoint	Feasibility study of SharePoint forms management	2010	No End Date (Continuous)
Post materials online that were previously printed	Ongoing/In Progress			Ongoing development of online documents and learning resources in SharePoint	Continue with development of online documents and learning resources in SharePoint	2011	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Completed in 2011			Pay stubs now emailed to district employees		2011	2011
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	20	% of staff currently have received collaborative software training	all admin staff have had training. Many teachers using collaborative software in classes.	Continue with training in collaborative software	2011	No End Date (Continuous)

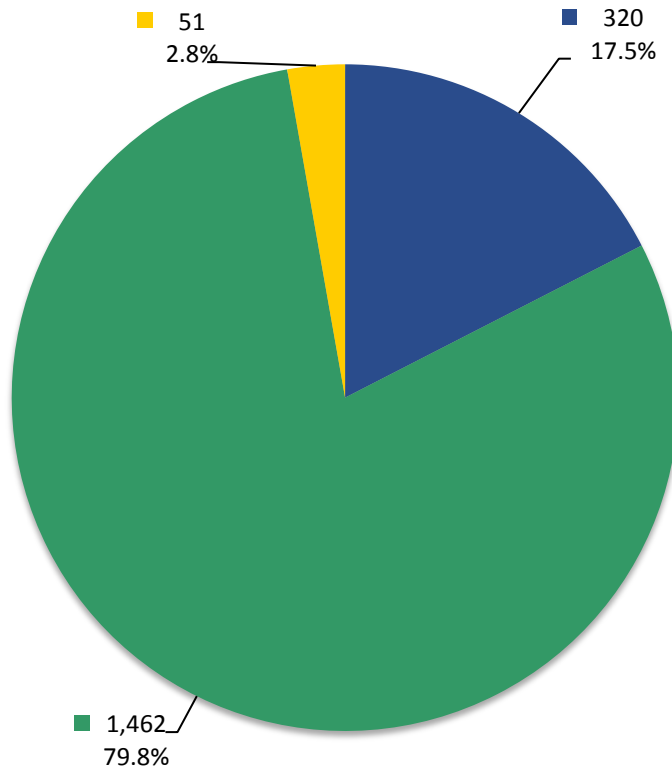
School District 70 Alberni - 2011 Carbon Neutral Action Report

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 12/31/11)	Performance to Date (as of 12/31/11)		Steps Taken in 2011	Steps Planned for 2012 -2014	Start Year	End Year
Business Travel							
Virtual meeting technology							
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Completed in 2011	100	% of computers have web-conferencing software installed	Completed installation of web-conferencing software		2010	2011
Make desktop web-cameras available to staff	Ongoing/In Progress	50	% of staff have access to a desktop web-camera	Only available on staff laptops	Will continue installations as money becomes available	2010	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Completed in 2011	100	% of meeting rooms have access to video-conferencing equipment	All meetings have access to laptops with video-conferencing capabilities (Skype/Elluminate)		2010	2011
Behaviour change program							
Train staff in web-conferencing	Ongoing/In Progress	20	% of staff are trained web-conferencing	Ongoing training to use Skype and Elluminate, with staff and students	Will continue training, within budget constraints	2010	No End Date (Continuous)
Train staff in video-conferencing or provide technical support for video-conferencing set-up	Ongoing/In Progress			All staff have access to web based video-conferencing tools. Technical support is available for all users as needed	Will continue to provide access to tools and technical support	2010	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress			Opportunities to participate through Elluminate, Skype, or teleconference for Board Meetings, professional learning sessions, Network collaboration meetings.	Opportunities to participate through Elluminate, Skype, or teleconference for Board Meetings, professional learning sessions, Network collaboration meetings.	2010	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress			Ongoing. For those activities requiring physical presence, staff are encouraged to travel together and where necessary share accommodation (Admin meetings, BCSSA, BCSTA, PVPA meetings).	Ongoing. For those activities requiring physical presence, staff are encouraged to travel together and where necessary share accommodation (Admin meetings, BCSSA, BCSTA, PVPA meetings).	2008	No End Date (Continuous)
Other Sustainability Actions							
Waste reduction/diversion							
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	Ongoing/In Progress			Workstation refurbishment - approximately 60 workstations and 20 laptops were refurbished to extend functional lifespan and reduce the number of units sent for recycling.	Continue with workstation refurbishment, where applicable	2011	No End Date (Continuous)

**School District 70 - Alberni
Greenhouse Gas Emissions by Source
for the 2011 Calendar Year (tCO₂e*)**



Total Emissions: 1,833

- 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 12:30 PM)

Total offsets required: **1,622**. Total offset investment: **\$40,550**. Emissions which do not require offsets: **211** **

*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.