

School District 70 – 2012 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. After offset exemptions are applied we are pleased to report a reduction of 81 tonnes of CO₂e in 2012 over 2011. During 2012 we occupied our newly constructed high school and are in the process of pursuing LEED Gold certification for this building. District wide students and staff have engaged in many initiatives: reducing waste output, actively recycling, composting, purchasing green products, undertaking energy challenges, turning off and unplugging unneeded equipment and lights. We continue to upgrade our fleet, again within budget constraints. The environmental effects and benefits are being considered in all of our decisions and practices.

2012 Greenhouse Gas Emissions

Mobile Combustion:	321.03 tonnes of CO ₂ e
Stationary Combustion:	1,201.66 tonnes of CO ₂ e
Purchased Energy:	140.79 tonnes of CO ₂ e
Office Paper	65.81 tonnes of CO ₂ e
Total Biomass Emissions	<u>19.51 tonnes of CO₂e</u>
Total 2012 Emissions:	1,748.80 tonnes of CO ₂ e

Offsets Applied to Become Carbon Neutral in 2012

There is a total of 208.13 tonnes of CO₂e that does not require offsets. Of this total, 188.62 tonnes are related to the mobile fleet and 19.51 tonnes related to emissions from buildings.

Changes to Greenhouse Gas Emissions and Offsets Reporting from Previous Years

There was an adjustment of 15 tonnes due to a month of missed 2011 data, resulting in an additional payment to be made.

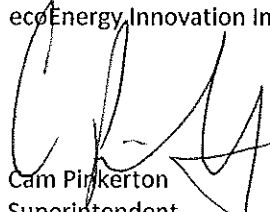
Emissions Reduction Activities

Actions Taken to Reduce Greenhouse Gas Emissions in 2012

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

Plans to Continue Reducing Greenhouse Gas Emissions 2013-2015

We plan to continue with actions as described above. We occupied our new LEEDS Gold certified building high school in September of 2012. This new high school will reduce our electrical consumption and use less boiler fuels, reducing our greenhouse gas emissions. We have begun a phased decommissioning of our old high school which will be completely offline by June 2013 further reducing electrical consumption and use of boiler fuels. 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.



Cam Pinkerton
Superintendent
School District 70 (Alberni)

School District 70 Alberni - 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	Continued reiteration of best practices delivered in 2010 training sessions	Re-deliver training to fleet drivers targeting reduced fuel consumption	2010	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	Signage posted in driver areas and on school property	Place idle free decals in all fleet vehicles	2010	No End Date (Continuous)
Encourage carpooling in fleet vehicles	Ongoing/In Progress	Encouraged staff to carpool when attending meetings, training, etc. at the same venue	Emailed staff with carpool options for a variety of events	2012	No End Date (Continuous)
Promote alternatives to fleet vehicle travel where possible (e.g., bicycles, public transit, walking)	Not Yet Evaluated				No End Date (Continuous)
Vehicle fuel efficiency					
Replace vehicles with more fuel-efficient models	Ongoing/In Progress	No new vehicles purchased	Replacement of 2 older service vehicles with more fuel efficient models (Budget Dependent)	2011	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	Replace aging vehicles with fuel efficient models as funds become available	Replace aging vehicles with fuel efficient models as funds become available	2011	No End Date (Continuous)
Perform regular fleet maintenance to improve fuel-efficiency	Ongoing/In Progress	Scheduled maintenance performed on all vehicles per manufacturer's specifications	Scheduled maintenance performed on all vehicles per manufacturer's specifications	2009	No End Date (Continuous)
Stationary Fuel Combustion, Electricity					
Behaviour change program					
Help staff reduce personal energy use through "workstation tune-ups"	Ongoing/In Progress	Continued focus on workstation tune-ups	Continued focus on workstation tune-ups	2011	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	In Development	None	Internal marketing campaign to drive focus on actions which drive carbon neutrality	2013	No End Date (Continuous)
Ask staff to unplug electrical equipment or switch off power bars when not in use	In Development	None	Internal marketing campaign to drive focus on actions which drive carbon neutrality	2013	No End Date (Continuous)
Ask staff to close blinds at end of work day to reduce heating/cooling demands	In Development	None	Internal marketing campaign to drive focus on actions which drive carbon neutrality	2013	No End Date (Continuous)
Encourage staff to use air dry setting on dishwashers	In Development	None	Internal marketing campaign to drive focus on actions which drive carbon neutrality	2013	No End Date (Continuous)
Provide tips to staff on saving energy in the office while working outside of regular business hours	In Development	None	Internal marketing campaign to drive focus on actions which drive carbon neutrality	2013	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	In Development	None	Internal marketing campaign to drive focus on actions which drive carbon neutrality	2013	No End Date (Continuous)
Promote hot water conservation	In Development	None	Internal marketing campaign to drive focus on actions which drive carbon neutrality	2013	No End Date (Continuous)
IT power management					
Install power management software which shuts down computers outside of regular business hours	Ongoing/In Progress	All new computers added in 2012 are powered down by an auto-script	Continue to run power management auto-script on any new computers	2008	No End Date (Continuous)
Implement server virtualization	Ongoing/In Progress	Technology infrastructure in new high school based on virtualized servers and virtualized applications	Virtualize servers as they are brought on line	2010	No End Date (Continuous)
Apply auto-sleep settings on computer monitors and CPUs	Ongoing/In Progress	All computers are set to auto-sleep	Continue to apply auto-sleep settings to any new computers	2010	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	Technology infrastructure in new high school has reduced 40 stand alone devices to 10 multi-function devices	Continue to replace stand alone devices with multi-function devices as need and funding allows	2010	No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Apply auto-sleep settings on printers, fax machines, and/or multi-function devices	Ongoing/In Progress	All printers are set to auto-sleep	Continue to apply auto-sleep settings to any new printers	2010	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Ongoing/In Progress	100% of all computers are ENERGY STAR rated. 75% of all monitors are ENERGY STAR rated	Continue to replace computers with ENERGY STAR models. Continue to replace monitors with ENERGY STAR models	2010	No End Date (Continuous)
Leased buildings					
Establish energy performance baseline for leased buildings	Not Yet Evaluated				No End Date (Continuous)
Develop a green lease policy that requires green features to conserve energy be included in all lease negotiations	Not Yet Evaluated				No End Date (Continuous)
Owned buildings					
Establish energy performance baseline for owned buildings	Not Yet Evaluated				No End Date (Continuous)
Achieve LEED NC Gold certification at a minimum for new construction or major renovations	Ongoing/In Progress	New high school occupied in September 2012. Anticipate completion of construction in 2013 to LEED Gold standard	Anticipate achieving LEED Gold certification for new high school during 2013	2011	2013
Perform energy retrofits on existing, owned buildings	Ongoing/In Progress	Replaced boilers in 3 facilities	Replace boilers in 4 facilities (Budget Dependent)	2008	No End Date (Continuous)
Incorporate a refrigerant management strategy into regular building management/maintenance to reduce fugitive emissions	Not Yet Evaluated				No End Date (Continuous)
Planning/management					
Reduce office space (square meters) per employee	Not Yet Evaluated				No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Not Yet Evaluated				No End Date (Continuous)
Retrofit details for owned buildings					
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress	New boilers installed in 3 facilities replacing units which were 20+ years old	Replace boilers in 4 facilities (Budget Dependent)	2008	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress	No upgrades in 2012	Upgrade lighting systems based on need and funding	2008	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress	DDC controls added to 3 facilities	Add DDC controls to 4 facilities (Budget Dependent)	2008	No End Date (Continuous)
Improve building insulation (including windows) during retrofits	Ongoing/In Progress	No upgrades in 2012	Perform upgrades based on need and availability of funding	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	Continued training in collaborative software	Continued training in collaborative software	2011	2011
Encourage staff to hold paperless meetings or presentations (i.e., no handouts)	In Development	None	Internal marketing campaign to drive focus on actions which drive carbon neutrality	2013	No End Date (Continuous)
Electronic media in place of paper					
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Completed (in Previous Year)				No End Date (Continuous)
Use electronic document library for filing common documents	Ongoing/In Progress	Continued development Admin and HR document library on SharePoint	Explore possible use of SharePoint as a site to house a variety of documents (job aids, process documents, etc.)	2010	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Completed (in Previous Year)				No End Date (Continuous)

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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Paper Type					
Purchase 40% post-consumer recycled paper	Ongoing/In Progress	All paper purchased is 50% recycled product or greater	Continue to purchase recycled product	2010	No End Date (Continuous)
Printer/document settings					
Switch networked printers and photocopiers to automatic double-sided	Ongoing/In Progress	Continue to promote double-sided printing whenever possible	Continue to promote double-sided printing whenever possible	2011	No End Date (Continuous)

School District 70 Alberni - 2012 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

Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Business Travel					
Behaviour change program					
Train staff in web-conferencing	Ongoing/In Progress	Continued training in web conferencing for staff and students	Continued training in web conferencing for staff and students as budget allows	2010	No End Date (Continuous)
Encourage staff to consider virtual attendance/presentation at events where possible	Ongoing/In Progress	Continued to explore and promote opportunities for participation through virtual applications for meetings and training	Continue to explore and promote opportunities for participation through virtual applications for meetings and training	2010	No End Date (Continuous)
Encourage carpooling to meetings	Ongoing/In Progress	Promoted car-pooling opportunities throughout the district	Continue to promote car-pooling opportunities throughout the district	2012	No End Date (Continuous)
Policy and budgeting					
Create a low-carbon travel policy or travel reduction goal	Not Yet Evaluated				No End Date (Continuous)
Virtual meeting technology					
Install web-conferencing software (e.g., Live Meeting, Elluminate, etc.)	Completed (in Previous Year)				No End Date (Continuous)
Make desktop web-cameras available to staff	Ongoing/In Progress	Available on staff laptops	Continued installations as funding is available	2010	No End Date (Continuous)
Install video-conferencing units in meeting rooms or provide mobile video-conferencing units	Completed (in Previous Year)				No End Date (Continuous)
Education, Awareness, and Engagement					
Awards/Recognition					
Establish a sustainability/green awards or recognition program	Not Yet Evaluated				No End Date (Continuous)
Staff Professional Development					
Support green professional development (e.g., workshops, conferences, training)	Not Yet Evaluated				No End Date (Continuous)
Include green options in employee performance measurement system	Not Yet Evaluated				No End Date (Continuous)
Staff awareness/education					
Provide education to staff about the science of climate change	Not Yet Evaluated				No End Date (Continuous)
Provide education to staff about the conservation of water, energy, and raw materials	Not Yet Evaluated				No End Date (Continuous)
Provide green tips on staff website or in newsletters	Not Yet Evaluated				No End Date (Continuous)
Provide sustainability education during new staff orientation	Not Yet Evaluated				No End Date (Continuous)
Team-building					
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Not Yet Evaluated				No End Date (Continuous)
Provide resources and/or dedicated staff to support teams	Not Yet Evaluated				No End Date (Continuous)
Providing behaviour change education/training to teams (e.g., community-based social marketing)	Not Yet Evaluated				No End Date (Continuous)
Other Sustainability Actions					

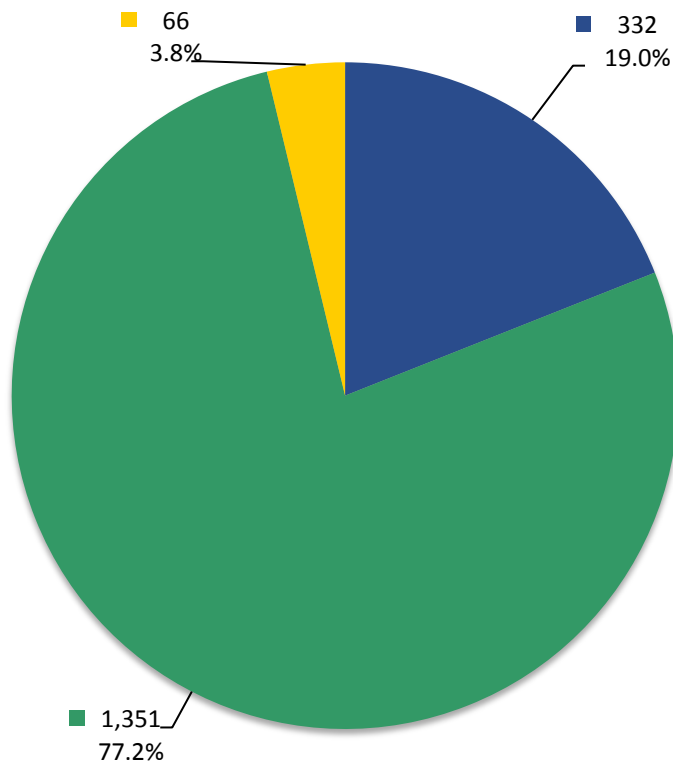
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Action	Status	Steps Taken	Steps Planned	Start Year	End Year
Adaptation to Climate Change					
Assessed whether extreme weather events and/or long term changes in climate will affect the organization's business areas	Not Yet Evaluated				No End Date (Continuous)
Integrated considerations of extreme weather events and/or long term changes in climate into the organization's decision making.	Not Yet Evaluated				No End Date (Continuous)
Building construction, renovation					
Establish a policy to reuse materials where possible and divert construction and demolition debris from landfills and incineration facilities	In Development	No formal policy however re-use of materials continues to be a focus of the maintenance group	RFP for demolition of old high school includes reclamation and diversion activities	2008	No End Date (Continuous)
Incorporate lifecycle costing into new construction or renovations	Ongoing/In Progress	Lifecycle costing considered during design and construction of new LEED Gold certified high school	Consideration for future projects	2011	No End Date (Continuous)
Commuting to and from home					
Introduce telework/work from home policy	Not Yet Evaluated				No End Date (Continuous)
Offer staff a compressed work week	Not Yet Evaluated				No End Date (Continuous)
Encourage commuting by foot, bicycle, carpool or public transit	Not Yet Evaluated				No End Date (Continuous)
Provide shower or locker facilities for staff/students who commute by foot or by bicycle	Not Yet Evaluated				No End Date (Continuous)
Provide secure bicycle storage	Ongoing/In Progress	Secure bike storage available at new high school	Potential secure bike storage as new construction projects are undertaken	2012	No End Date (Continuous)
Procurement (non-paper supplies)					
Incorporate minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)	Not Yet Evaluated				No End Date (Continuous)
Establish green standards for goods that are replaced infrequently and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)	Not Yet Evaluated				No End Date (Continuous)
Implement sustainable purchasing program for cleaning products, disposable paper products and trash bags	Completed (in Reporting Year)	Moved to eco friendly cleaning products in all facilities		2012	2012
Waste reduction/diversion					
Put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities	Not Yet Evaluated				No End Date (Continuous)
Implement a hazardous waste reduction and disposal strategy	Not Yet Evaluated				No End Date (Continuous)
Water conservation					
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Not Yet Evaluated				No End Date (Continuous)
Put in place a potable water management strategy to reduce potable water demand of building-level uses such as cooling tower equipment, toilet fixtures, etc. and landscape features	Not Yet Evaluated				No End Date (Continuous)
Introduce a stormwater management landscape strategy (e.g., vegetated roofs, permeable paving, rain gardens, bioswales)	Not Yet Evaluated				No End Date (Continuous)

**School District 70 - Alberni
Greenhouse Gas Emissions by Source
for the 2012 Calendar Year (tCO₂e*)**



Total Emissions: 1,749

- 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 12:05 PM)

Total offsets required: **1,541**. Total offset investment: **\$38,525**. Emissions which do not require offsets: **208** **

*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.