

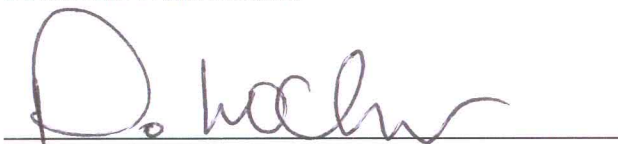
Sooke School District #62 - 2010 Carbon Neutral Action Report

Executive Summary

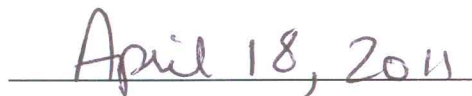
The Sooke School District No. 62 (SD62) has undertaken many steps towards reaching carbon neutrality for a number of years. In the past, SD62 and Honeywell entered into the first provincial K-12 ESCO agreement to lower SD62's energy consumption at each school site. This also led to the changing of funding for energy in schools throughout the province. This partnership brought about central heating controls and lighting upgrades at a majority of sites.

In 2008 SD62 entered into a partnership with BC Hydro to provide SD62 funding for an Energy Manager. The role of the Energy Manager is to raise awareness, seek out, implement, and facilitate energy conservation projects. This has led to reduced energy consumption and helped to counterbalance rising utility costs. The SD is now one of the best energy performers in the province and has reduced its energy intensity by 10% over the last 4 years.

Currently SD62 has implemented Destination Conservation, a 3 year behaviour education program focused on conservation of energy, water, and waste. Destination Conservation, started in November 2008, is running in 16 out of 22 schools in the District.



Dave Lockyer, SD62 Secretary-Treasurer



Date

Overviews

Greenhouse Gas Emissions in 2010

The total 2010 greenhouse gas (GHG) emissions from all sources covered by the Greenhouse Gas Reduction Targets Act (as reported in SMARTTool) is 2891.67 tonnes CO₂e.

It was estimated that stationary fugitive emissions from cooling do not comprise more than 0.01% of Sooke School District's 2891.67 tonnes CO₂e total emissions and an ongoing effort to collect or estimate emissions from this source would be disproportionately onerous. For this reason, emissions from this source have been deemed out-of-scope and have not been included in Sooke School District's total greenhouse gas.

Offsets Applied to Become Carbon Neutral in 2010.

Sooke School District has applied for 2,305.97 tonnes CO₂e to become carbon neutral for 2010. This represents an offset investment of \$57,649.25 before taxes.

As required by section 5 of the Carbon Neutral Government Regulation, 585.7 tonnes CO₂e of emissions resulting from the operation of school buses were reported as part of our greenhouse gas emissions profile in 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

- **Actions Taken to Reduce Greenhouse Gas Emissions in 2010**

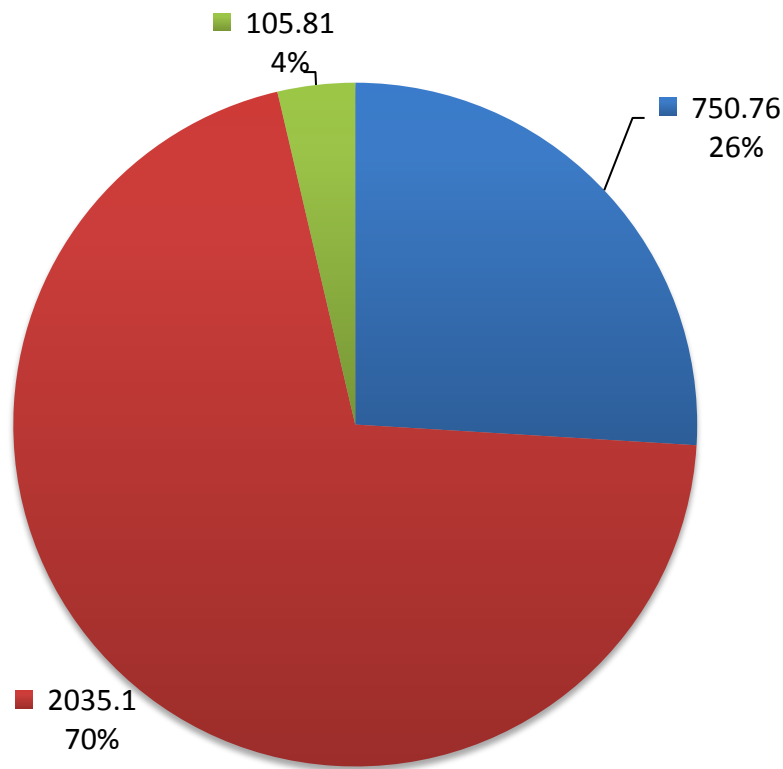
Careful energy monitoring against building energy baselines allowed SD62 to watch for unusual energy spikes across our facilities and make repairs where necessary to reduce SD62's overall GHG's. Several buildings have had major improvements to the heating systems that allow for proper scheduling of holidays to reduce GHG's when buildings are vacant.

- **Plans to Continue Greenhouse Gas Emissions 2011 – 2013**

GHG reductions will continue through 2011 and beyond. Natural gas hot water tanks are targeted to be replaced with energy efficient tank-less models. Aging boilers are being investigated for energy efficient replacement options. Several mechanical systems have been selected to be replaced with newer systems that allow for reduced GHG's and improved occupant comfort. The Districts Energy Manager will continue to provide energy education sessions to staff, and students.

Sooke School District

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



Total Emissions: 2891.67

- 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: **2305.97**. Total offset investment: **\$57,649.25**. Emissions which do not require offsets: **585.7 ****

*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 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.

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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 <i>Greenhouse Gas Reduction Targets Act</i> .							
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)							
Behaviour change program							
Provide fleet driver training to reduce fuel use	Completed in 2010	70	% of current drivers are trained	School Bus drivers attended a fleetsmart workshop		2010	2010
Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)							
Planning/management							
Enrol in a building energy benchmarking program (e.g., GREEN UP)	Ongoing/In Progress			Building energy benchmarking program is utilized by the School District since Sept 2008	Continue to use energy benchmarking software and evaluate comparisons to other School Districts	2008	No End Date (Continuous)
Install a real time metering system (e.g. Pulse, Reliable Controls, Houle Controls)	Ongoing/In Progress	6	% of buildings have a real time metering system installed	Real time meters installed in 2 schools as part of a BC Hydro program. Both sites real time meter were installed late 2009.	Install more sites with real time meters	2009	No End Date (Continuous)
Owned buildings							
Establish energy performance baseline for owned buildings	Ongoing/In Progress	100	% of owned buildings have an established energy performance baseline	Energy Manager has established baselines for all buildings energy consumption	Energy Manager will continue to monitor the performance of each building against it's energy baseline	2008	2011
Complete energy retrofits on existing, owned buildings	In Development			All existing sites have been involved in an energy retrofit previous to 2010.	Further energy retrofits are planned throughout the district	1995	No End Date (Continuous)
Retrofitting owned buildings							
Upgrade mechanical systems (heating, cooling, ventilation) during retrofits	Ongoing/In Progress			Submitted capital plans to Ministry for mechanical system improvements at 2 sites	Further boiler replacements are planned	2008	No End Date (Continuous)
Upgrade lighting systems during retrofits	Ongoing/In Progress			Majority of lighting systems were upgraded prior to 2010. Remaining older lighting in portables are updated during a renovation	Continue to update lighting during any renovation	1995	No End Date (Continuous)
Upgrade/adjust control systems during retrofits	Ongoing/In Progress			10 sites received updated HVAC controls with remote access	Replacement of aging control systems is needed	2010	No End Date (Continuous)
Leased buildings							
Establish energy performance baseline for leased buildings	Ongoing/In Progress	100	% of leased buildings have an established energy performance baseline	Energy Manager has established baselines for all buildings energy consumption	Energy Manager will continue to monitor the performance of each building against it's energy baseline	2008	2011
IT power management							
Install power management software which shuts down computers outside of regular business hours	In Development				IT Department to investigate installing PowerSave software	2011	2012
Apply auto-sleep settings on computer monitors and CPUs	In Development				IT Department to investigate installing PowerSave software	2011	2012

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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
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	90	% reduction in printers, copiers, and/or fax machines since start year indicated	Multi-function devices are installed throughout the district sites with energy saving settings applied	Replace remaining sites with multi-function equipment	2007	No End Date (Continuous)
Apply auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices	Ongoing/In Progress	75	% of devices have auto-sleep settings applied	Multi-function devices are installed throughout the district sites with energy saving settings applied	Ensure that staff are aware of the energy saving settings	2007	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	In Development	20	% of computers are ENERGY STAR rated	Replacement PC's are typically Energy Star rated	Energy Star rated equipment will become mandatory during replacement	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	5	% of fridges are ENERGY STAR rated	Removed a number of unnecessary fridges from school sites	Energy Star rated equipment will become mandatory during replacement	2008	No End Date (Continuous)
Behaviour change program							
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress			Destination Conservation Teams have put up stickers as part of their campaigns to reduce energy at their school	Continue to utilize Destination Conservation teams to spread the conservation message at their school	2008	2011
Promote hot water conservation	Ongoing/In Progress			Destination Conservation Teams have started a water conservation campaign at their school	Continue to utilize Destination Conservation teams to spread the conservation message at their school	2009	2011
Supplies (Paper)							
Printer/document settings							
Switch networked printers and photocopiers to automatic double-sided	In Development			Individual settings override double sided print settings. Few indivisuals have reprogrammed their settings to print double sided.	Further training and education to staff regarding the reason to print double sided	2009	No End Date (Continuous)
Electronic media in place of paper							
Install collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	Ongoing/In Progress	10	% of staff workstations with software installed	Sharepoint sites for collaboration started late 2010	Continue to tranfer more departments onto Sharepoint along with training to use the software tools.	2010	No End Date (Continuous)
Switch to an electronic payroll notification system in place of paper pay stubs	Ongoing/In Progress			Payroll offers electronic pay stubbs as an option for all employees	Encourage more staff to sign up for the paperless payroll system	2007	No End Date (Continuous)
Behaviour change program							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development	5	% of staff currently have received collaborative software training	Sharepoint sites for collaboration started late 2010	Continue to tranfer more departments onto Sharepoint along with training to use the software tools.	2010	No End Date (Continuous)

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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 <i>Greenhouse Gas Reduction Targets Act</i> . 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
Education, Awareness, and Engagement							
Team-building							
Create Green, Sustainability, Energy Conservation, or Climate Action Teams with executive endorsement	Ongoing/In Progress			Destination Conservation Teams at schools have been created	Destination Conservation program runs until 2011	2008	2011
Provide resources and/or dedicated staff to support teams	Ongoing/In Progress			BC Hydro funded Energy Manager is available to support teams	BC Hydro funded Energy Manager is available to support teams	2008	2011
Awards/Recognition							
Establish a sustainability/green awards or recognition program	Ongoing/In Progress			Schools participating in a conseravation program that reduces energy consumption, receive 50% of the avoided electricity cost	Reward program will continue through to the end of Destination Conservation in the School District (2011)	2008	2011
Staff Professional Development							
Support green professional development (e.g., workshops, conferences, training)	Ongoing/In Progress			SD62's Energy Manager attends training workshops	Continue to support on-going professional devolepment	2008	2011
Staff awareness/education							
Provide education to staff about the conservation of water, energy, and raw materials	Ongoing/In Progress			Energy Manager has provided education to the Board and Principals	Energy Manager will continue to provide education to staff	2008	2011
Provide green tips on staff website or in newsletters	In Development				New format is being investigated to get green tips information out to the staff	2011	2011
Client/public awareness/education							
Provide education to clients/public about the science of climate change	Ongoing/In Progress			Energy Manager has made several presentations to schools, PAC's and staff	Energy Manager will continue to provide presentations to schools, PAC's, and staff	2008	2011
Provide education to clients/public about the conservation of water, energy, and raw materials	Ongoing/In Progress			Energy Manager has made several presentations to schools, PAC's and staff	Energy Manager will continue to provide presentations to schools, PAC's, and staff	2008	2011
Provide green tips on client/public website or in newsletters	In Development				New format is being investigated to get green tips information out to the public	2011	2011
Other Sustainability Actions							
Water conservation							
Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models	Ongoing/In Progress			Water fixtures are replaced as needed with water efficient fixtures	Continue replacing water fixtures as required with water efficient fixtures	2009	No End Date (Continuous)