

## School District 84 (Vancouver Island West)

### 2010 Carbon Neutral Action Report

#### Executive Summary

School District No. 84 (Vancouver Island West) has been contributing to carbon neutrality through equipment replacement and upgrades, building renovation and upgrades, and working with employees and students to reduce energy consumption.

The key initiative in 2010 has been the complete replacement of the district's entire computer network. The new network features thin client hardware and complete server virtualization.

School District No.84 (Vancouver Island West) is educating employees and students to recognize opportunities to contribute to environmental sustainability. By modelling energy conservation and introducing environmental awareness programs in all workplaces, we hope to enable staff and students alike to feel empowered that they can personally make a difference for our shared environment.

#### 2010 Greenhouse Gas Emissions

• Mobile Fuel Combustion (Fleet and other mobile equipment) =	50.72 tonnes CO <sub>2</sub> e
• Stationary Fuel Combustion and Electricity (Building) =	149.27 tonnes CO <sub>2</sub> e
• Supplies (Paper) =	2.03 tonnes CO <sub>2</sub> e
• Fugitive Emissions =	0 tonnes CO <sub>2</sub> e
<u>Total 2010 Greenhouse Gas Emission</u>	<u>202.02 tonnes CO<sub>2</sub>e</u>

It was estimated that stationary fugitive emissions from cooling do not comprise more than 0.01% of School District 84's 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 School District 84's total greenhouse gas emissions profile.

#### Offset Applied to Become Carbon Neutral in 2010

• Total 2010 Greenhouse Gas Emissions =	202.02 tonnes CO <sub>2</sub> e
• Emission Which Do Not Require Offsets =	<21.47> tonnes CO <sub>2</sub> e
<u>Total Offset Purchased</u>	<u>180.55 tonnes CO<sub>2</sub>e</u>
<u>Total Offset Investment (before taxes)</u>	<u>\$4513.75 cdn</u>

As required by section 5 of the Carbon Neutral Government Regulation, 21.47 tonnes CO<sub>2</sub>e of emissions resulting from the operation of school buses of were reported as part of our greenhouse gas emissions profile 2010. However, they were not offset as they are out-of-scope under section 4 (2)(c) of the Carbon Neutral Government Regulation.

#### Action Taken to Reduce Greenhouse Gas Emission Activities in 2010

- All computer networks replaced with thin client hardware and virtualized servers.
- Lights out reminders posted in forty percent of schools.
- The majority of forms and notices are now posted on the district web site.
- The district increased the percentage of 30% and 100% recycled content paper purchased.
- Lighting and insulation was upgraded in fifteen percent of district facilities.
- Fifteen percent of district vehicles were right-sized.
- Anti-idling signage was posted at twenty percent of schools.

### **Plans to Continue Reducing Greenhouse Gas Emissions 2011 – 2013**

- Continue to look for opportunities to reduce the number of stand alone printers, copiers fax machines as well as non Energy Star fridges.
- Post lights out reminders in remaining schools.
- Upgrade the district web site and encourage its use as the major communications hub for the district.
- Increase the percentage of 30% and 100% recycled content paper purchased.
- Investigate the use of collaborative software for staff and students.
- Continue to upgrade lighting and insulation in district facilities.
- Continue to explore opportunities to right-size district vehicles as they are replaced.
- Post anti-idling signage at remaining schools.

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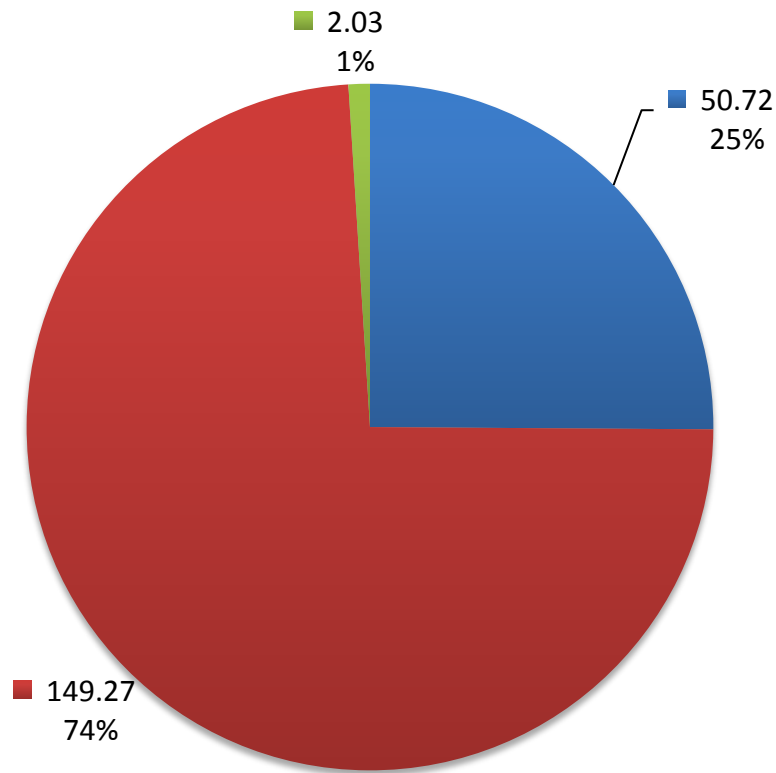
Jessie Smith  
Chairperson

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Lawrence Tarasoff  
Superintendent/Secretary Treasurer

# School District 84 (Vancouver Island West)

## Greenhouse Gas Emissions by Source for the 2010 Calendar Year (tCO<sub>2</sub>e\*)



**Total Emissions: 202.02**

- 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: **180.55**. Total offset investment: **\$4,513.75**. Emissions which do not require offsets: **21.47** \*\*

\*Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) 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.

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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 12/31/10)	Performance to Date (as of 12/31/10)		Steps Taken in 2010	Steps Planned for 2011 -2013	Start Year	End Year
<b>Mobile Fuel Combustion (Fleet and other mobile equipment)</b>							
<b>Vehicle fuel efficiency</b>							
Replace vehicles with more fuel-efficient models	Ongoing/In Progress			Although no fuel efficient vehicles were purchased in 2010, all vehicle purchases include fuel efficiency as a part of the selection criteria,	Continue to consider fuel efficiency when purchasing replacement vehicles	2008	No End Date (Continuous)
Replace larger vehicles with smaller models according to fleet "right-sizing" principles	Ongoing/In Progress	15	% of vehicles down-sized since start year indicated	Replaced a V8 engine truck with a V6 engine truck	Continue to consider right-sizing when purchasing replacement vehicles	2010	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	All vehicles were subject to regular maintenance for fuel efficiency	Continue practice	2008	No End Date (Continuous)
<b>Behaviour change program</b>							
Introduce anti-idling policy and/or raise anti-idling awareness for fleet drivers (e.g., signs, stickers, messages)	Ongoing/In Progress	20	% of schools with signage	Installed anti-idling signage at one of five schools	Install anti-idling signage at all other schools	2010	2013
<b>Stationary Fuel Combustion, Electricity and Fugitive Emissions (Buildings)</b>							
Complete energy retrofits on existing, owned buildings	Ongoing/In Progress	30	% of owned buildings have undergone energy retrofits since start year indicated	Lighting and insulation was upgraded in one building	Continue energy retrofits as buildings are upgraded	2007	No End Date (Continuous)
<b>Retrofitting owned buildings</b>							
Upgrade lighting systems during retrofits	Ongoing/In Progress	70	% of retrofits since start year indicated had lighting systems upgrades	One building had a lighting upgrade	Continue lighting retrofits as buildings are upgraded	2002	No End Date (Continuous)
<b>IT power management</b>							
Implement server virtualization	Completed in 2010	100	% of servers have been virtualized since start year indicated	Virtualized all servers		2010	2010
Remove stand-alone printers, copiers, and/or fax machines and install multi-function devices	Ongoing/In Progress	50	% reduction in printers, copiers, and/or fax machines since start year indicated	No machines reduced this year	Continue to reduce as able	2008	No End Date (Continuous)
Replace computers with ENERGY STAR models during regular computer upgrades	Completed in 2010	100	% of computers are ENERGY STAR rated	All computers are now using thin client technology		2010	2010
<b>Appliances and electronic devices</b>							
Replace refrigerators with ENERGY STAR models or source ENERGY STAR models for future purchases	Ongoing/In Progress	50	% of fridges are ENERGY STAR rated	No fridges were replaced this year	Continue to replace with Energy Star models	2008	No End Date (Continuous)
<b>Behaviour change program</b>							

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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
Help staff reduce personal energy use through "workstation tune-ups"	In Development	0	% of current staff have completed a workstation tune-up		Investigate workstation tune-ups	2011	No End Date (Continuous)
Provide reminders for turning off lights (e.g., signs, stickers, messages)	Ongoing/In Progress	40	% of schools with stickers in place	Stickers placed in two schools	Continue sticker placement	2006	No End Date (Continuous)
<b>Supplies (Paper)</b>							
<b>Paper Type</b>							
Purchase 30% post-consumer recycled paper	Ongoing/In Progress	20	% of total paper purchased contains 30% recycled content	Increased percentage of 30% recycled content paper purchased	Continue to increase percentage purchased as price warrants	2009	No End Date (Continuous)
Purchase 100% post-consumer recycled paper	Ongoing/In Progress	10	% of total paper purchased contains 100% recycled content	Increased percentage of 100% recycled content paper purchased	Continue to increase percentage purchased as price warrants	2009	No End Date (Continuous)
<b>Electronic media in place of paper</b>							
Post materials online that were previously printed	Ongoing/In Progress	55	% of forms available online	Posted the majority of forms to district website	Continue to add forms	2010	No End Date (Continuous)
<b>Behaviour change program</b>							
Train staff to use collaborative software for electronic editing (e.g. SharePoint, Groove, etc.)	In Development	0	% of staff currently have received collaborative software training		Investigate collaborative software	2011	No End Date (Continuous)