

# 2013

## CARBON NEUTRAL ACTION REPORT



**"Working Together for Student Success"**



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# Executive Summary

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School District No. 67 (Okanagan Skaha) serves the communities of Penticton, Summerland, Naramata, and Kaleden in the south Okanagan region of British Columbia. School District No. 67 is signatory to and supports the Climate Action Charter in the province of British Columbia. The School District supports and practices sustainable initiatives to conserve energy and resources with the goal to reduce carbon emissions; reduce utility costs; and promote a cleaner environment for all students and staff.

District schools continue to practice the sustainable principles introduced through the Destination Conservation program.

Themes for the three years of the program are: energy in year one; water in year two; and waste avoidance in year three.



## Overview

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This is the 2013 Carbon Neutral Action Report (CNAR) for School District No. 67. This report contains our 2013 emissions profile, offsets purchased, the actions we have taken in 2013 to reduce our GHG emissions and our plans to continue reducing emissions in 2014 and beyond.

By June 30, 2014, School District No. 67's final CNAR will be posted to our website at [www.sd67.bc.ca](http://www.sd67.bc.ca).



## 2013 Greenhouse Gas Emissions

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In 2013, operations in School District No. 67 (Okanagan Skaha) produced a total of 1797 carbon dioxide equivalent tonnes (CO<sub>2</sub>e) of emissions. The school bus fleet produced 97 tonnes of CO<sub>2</sub>e, however, those emissions do not require offset, leaving a total of 1701 tonnes of CO<sub>2</sub>e requiring purchase of offsets. The majority, 1459 tonnes of CO<sub>2</sub>e, were derived from heating and lights for school buildings. The remaining balance was derived from vehicle fleet fuel and paper supplies.

It was estimated that fugitive emissions from stationary cooling comprise less than 0.01% of School District No. 67 (Okanagan Skaha) total emissions. The ongoing effort to collect or estimate emissions from this source annually is disproportionately onerous, thus, for this reason, emissions from this source have been deemed out-of-scope and are not included in School District No. 67 (Okanagan Skaha) total greenhouse gas emissions profile or offset purchase.

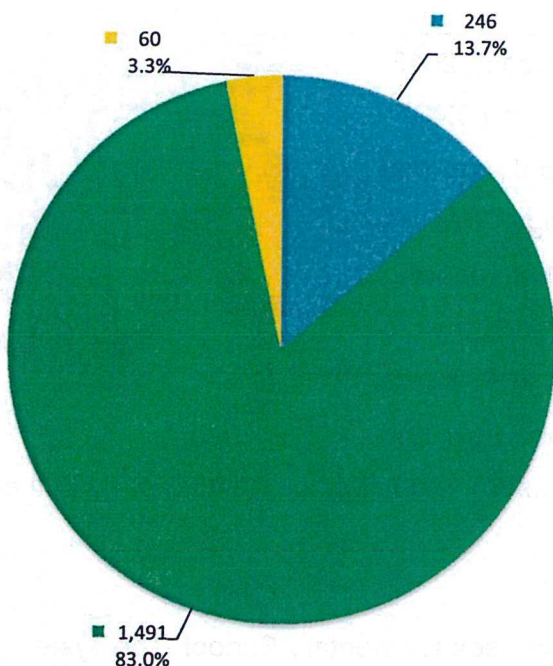
## Offsets Applied to Become Carbon Neutral in 2013

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In order to become carbon neutral in 2013, School District No. 67 (Okanagan Skaha) was required to purchase a total of 1701 tonnes of CO<sub>2</sub>e from Pacific Carbon Trust at a cost of \$25 per tonne of CO<sub>2</sub>e. Total cost for purchase of these carbon offsets for 2013 was \$42,525.00 for School District No. 67 (Okanagan Skaha).

As required by section 5 of the Carbon Neutral Government Regulation, 97 tonnes of CO<sub>2</sub>e emissions resulted from the operation of school buses and were reported as part of our greenhouse gas emissions profile in 2013. However, they were not offset as they are determined to be out-of-scope under section 4(2)(c) of the Carbon Neutral Government Regulations.

## 2013 Emissions Source Report (tCO<sub>2</sub>e)



**Total Emissions: 1,797**

- 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 2013 (Generated March 19, 2014 1:41 PM)

Total offsets required: **1,701**. Total offset investment: **\$42,525**. Emissions which do not require offsets: **97\*\***

\*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.

## Emissions and Offsets Summary

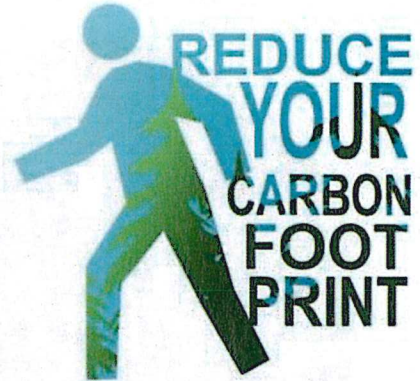
School District 67 GHG Emissions and Offsets for 2013 (TCO2E)	
GHG Emissions created in calendar year	
Total Emissions	1797
Total Emissions for Offsets	1701
Adjustments to GHG Emissions Reported in Previous Years	
Total Emissions	0
Total Emissions for Offsets	0
Credit owing from PCT at end of 2013 reporting year (if applicable – from May 15 Invoice):	
Credit Owing	\$0.00
Total Emissions for Offsets for the 2013 Reporting Year:	\$42,525.00



# Actions Taken to Reduce Greenhouse Gas Emissions in 2013

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The School District continued with their progressive stance in 2013. The District accessed the Carbon Neutral Capital Program (CNCP) to upgrade the boilers at West Bench Elementary School from mid efficiency boilers to high efficiency condensing technology. This will allow us to reduce our overall operating cost while further reducing our carbon output. The District also carried out its long range plan to tie Skaha Lake Middle School to the geothermal field at Princess Margaret Secondary. The system was installed between July and December and we are looking for energy savings and carbon reduction to show up early in the 2014 year.



A new direct digital control system was installed at Trout Creek Elementary School. The system replaced an older one that had reached the end of its life cycle. The new system takes advantage of up-to-date control algorithms to ensure the existing mechanical systems are running at their peak efficiency.

The District also undertook energy audits on two other district buildings with the intent of upgrading the mechanical systems to raise the overall building efficiency. These projects will be set for construction in the summer of 2014.

On a smaller scale, the District maintenance crews examined several of our schools to find areas where they could effect efficiency and occupant comfort at minimal costs. Several spaces were identified where classroom lighting upgrades could be completed with minimal disruption and low cost options.

## Plans to Continue Reducing Greenhouse Gas Emissions 2014 - 2016

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The District is undertaking an energy audit process to identify high consumers within our organization. The audit will include base lining buildings on several different reporting layers; CO<sub>2</sub>e/SqM, CO<sub>2</sub>e/student, Gigajoules/SqM, etc. The data will then be used to direct capital planning to allow the School District to invest in areas that will produce the best effect out of our dollars.

The District will also utilize funding from the 2014 CNCP grant allocations to undertake a boiler retrofit at Wiltse Elementary school in 2014. The existing mid efficiency boilers will be replaced with high efficiency units that will be able to work at lower temperatures without compromising the operating parameters of the boilers.

Within the Okanagan we believe that we are in a unique geographical location to take advantage of solar heating and are looking at ways to fund a solar wall or other solar projects. The pilot project would use the energy from the sun to preheat the ventilation air before it reaches the mechanical distribution systems in the building. This will reduce the amount of heat required for the building thus reducing the overall CO<sub>2</sub>e emissions.

The District will continue to request minor capital project funding from the Ministry of Education to upgrade school HVAC systems to modern, efficient, and reliable systems.



Bonnie Roller-Routley  
Secretary-Treasurer



### Carbon Neutral Action Report - 2013

This is the 2013 Carbon Neutral Action Report (CNAR) for *School District No. 67(Okanagan Skaha)*. This report contains our 2013 emissions profile, offsets purchased, the actions we have taken in 2013 to reduce our GHG emissions and our plans to continue reducing emissions in 2014 and beyond.

By June 30, 2014, *School District No. 67(Okanagan Skaha)*'s final CNAR will be posted to our website at [www.sd67.bc.ca](http://www.sd67.bc.ca).

#### Emissions and Offsets Summary:

<b>Organization X GHG Emissions and Offsets for 2013 (TCO2E)</b>	
<b>GHG Emissions created in calendar year 2013 (from SMARTTool Homepage)</b>	
Total Emissions	1797
Total Emissions for Offsets	1701
<b>Adjustments to GHG Emissions Reported in Previous Years (from SMARTTool Homepage)</b>	
Total Emissions	0
Total Emissions for Offsets	0
<b>Credit owing from PCT at end of 2012 reporting year (if applicable – from May 15 Invoice):</b>	
Credit Owing	0
Total Emissions for Offsets for the 2013 Reporting Year (from Offset Invoice):	1701

Signature

Date

Name (please print)

Title

*B. Roller Routley*

*27 MAY 2014*

*B. ROLLER ROUTLEY*

*SECRETARY TREASURER.*



# 2013 Carbon Neutral Action Report (CNAR) - Part 2 ACTIONS

Created Monday, March 10, 2014

Updated Tuesday, April 01, 2014

<https://fluidsurveys.com/surveys/cas-z/2013-cnar-form-bps-actions/84c87abbd82c9a951fabbca5e969a2f6/>

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## Page 1

Please complete the following sections of the 2013 Carbon Neutral Action Report form. Save your work frequently to prevent it from being lost. You can also save a copy for your own use as either a WORD or PDF file using the buttons at the bottom of each page.

This is Part 2 of the Carbon Neutral Action Report form. This section reports on actions taken to reduce emissions during the 2013 calendar year. This information will be included in your final Carbon Neutral Action Report posted on the Ministry of Environment website.

When the form is complete press the submit button on the last page to automatically submit the information to the Climate Action Secretariat (CAS). Do not press submit before you are ready – this may result in a loss of work.

In addition to completing this survey (Part 1 2), you are required to submit your completed Overview (Executive Summary) and Self-Certification Checklist. The 2013 Overview template was included in the email sent and can also be found on the LiveSmart leaders Community.

Please ensure you meet the following reporting deadlines:

A DRAFT 2013 CNAR is due to CAS by March 31, 2014. The draft is comprised of the Overview ONLY (no executive sign-off required).

The FINAL 2013 CNAR is due to CAS by May 30, 2014. The final 2013 CNAR includes Part 1 Part 2 survey form and Overview.

The Self-Certification Checklist is due to CAS by May 15, 2014.

For more information about the Carbon Neutral Government process, please refer to *Becoming Carbon Neutral 2013*, or should you have any questions please contact [climateactionsecretariat@gov.bc.ca](mailto:climateactionsecretariat@gov.bc.ca).

Organization Name

*School District # 67 (Okanagan Skaha)*

**Actions Taken to Reduce Emissions**

1) Stationary Fuel Combustion, Electricity (Buildings):

Indicate which actions were taken in 2013:

Performed energy retrofits on existing buildings

*Yes*

Built or are building new LEED Gold or other "Green" buildings.

*No*

Undertook an evaluation of overall building energy use.

*Yes*

Please list any other actions taken to reduce emissions from Buildings:

*Please refer to our Carbon Neutral Action Report overview document for specifics.*

2) Mobile Fleet Combustion (Fleet and other vehicles):

Indicate which actions were taken in 2013:

Do you have a fleet?

*Yes*

Replaced existing vehicles with more fuel efficient vehicles (gas/diesel)

*Yes*

Replaced existing vehicles with hybrid or electric vehicles



No

Reduced the overall number of fleet vehicles

No

Took steps to drive less than last year

No

Please list any other actions taken to reduce emission from fleet:

*Purchased right size vehicle for all replacements*

3) Supplies (Paper):

Indicate which actions were taken in 2013:

Used less paper than previous year

Yes

Used only 100% recycled paper

No

Used some recycled paper

No

Used alternate source paper (Bamboo, hemp, etc.)

No

Please list any other actions taken to reduce emissions from paper use:

*(none)*

Actions Taken to Reduce Emissions - continued

Explain how you plan to continue minimizing emissions in 2014 and future years:

*Please refer to our Carbon Neutral Action Report overview document for specifics.*

If you wish to list any other "sustainability actions" outside of buildings, fleet, paper and travel check "yes". This reporting is optional.

No