

2015

CARBON NEUTRAL ACTION REPORT



“Working Together for Student Success”



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Executive Summary

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

This is the 2015 Carbon Neutral Action Report (CNAR) for School District No. 67. This report contains our 2015 emissions profile, offsets purchased, the actions we have taken in 2015 to reduce our GHG emissions, and our plans to continue reducing emissions in 2015 and beyond.

By June 30, 2015, School District No. 67's final CNAR will be posted to our website at www.sd67.bc.ca.

2015 Greenhouse Gas Emissions

In 2015, operations in School District No. 67 (Okanagan Skaha) produced a total of 1570 carbon dioxide equivalent tonnes (CO₂e) of emissions. The school bus fleet produced 79 tonnes of CO₂e; however, those emissions do not require offset, leaving a total of 1491 tonnes of CO₂e requiring purchase of offsets. The majority, 1284 tonnes of CO₂e, were derived from heating and lights for school buildings. The remaining balance was derived from vehicle fleet fuel and paper supplies.

Through a recent internal audit process completed by School District No. 67 (Okanagan Skaha), an additional 93 tonnes of CO₂e was added to our offsets for the 2010 calendar year. This internal audit was designed to catch any errors in prior year's data to ensure compliance with the Provincial Governments Carbon Neutral Mandate.

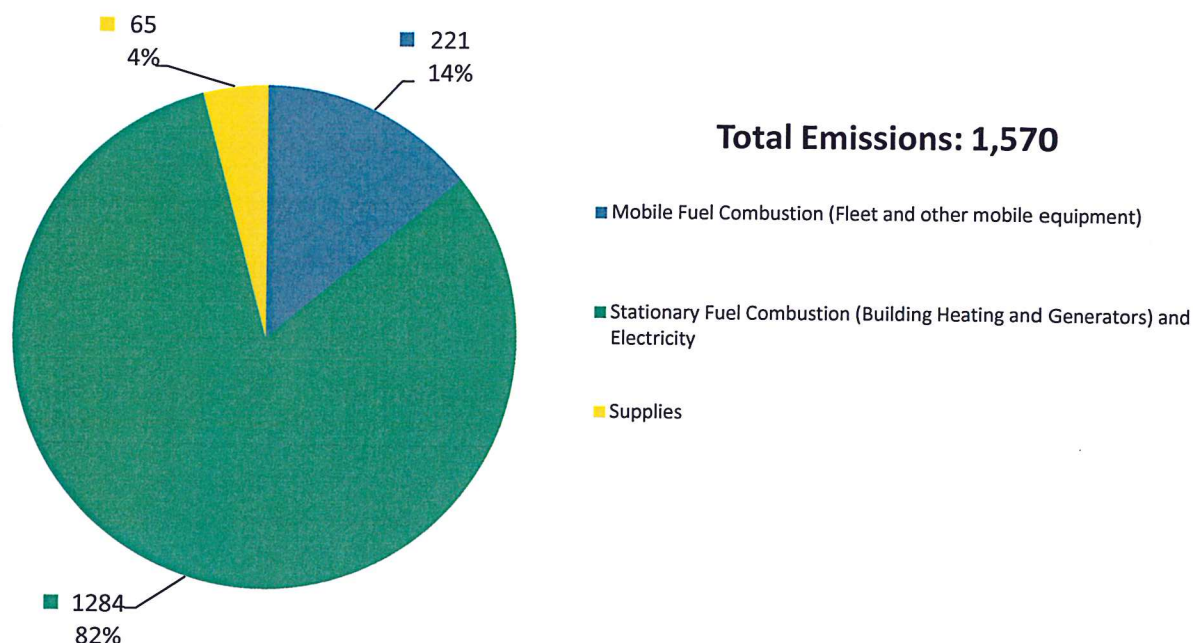
It was estimated that fugitive emissions from stationary cooling comprise less than 0.01% of School District No. 67 (Okanagan Skaha) total emissions. The ongoing effort to collect or estimate emissions from this source annually is disproportionately onerous, thus, for this reason, emissions from this 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 2015

In order to become carbon neutral in 2015, School District No. 67 (Okanagan Skaha) was required to purchase a total of 1491 tonnes of CO₂e at a cost of \$25 per tonne of CO₂e. Total cost for purchase of these carbon offsets for 2015 was \$37,275.00 for School District No. 67 (Okanagan Skaha). In addition, the 2010 adjustment of 93 tonnes of CO₂e at a cost of \$25 per tonne increased the 2015 total by \$2,325.00. This brings the 2015 total to \$39,600.00.

As required by section 5 of the Carbon Neutral Government Regulation, 79 tonnes of CO₂e emissions resulted from the operation of school buses and were reported as part of our greenhouse gas emissions profile in 2015. 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.

2015 Emissions Source Report (tCO₂e)



Offsets Applied to Become Carbon Neutral in 2015

Total offsets required: **1,491**. Total offset investment: **\$37,275**. Emissions which do not require offsets: **79****

*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.

Emissions and Offsets Summary

School District 67 GHG Emissions and Offsets for 2015 (tCO₂e)	
GHG Emissions created in calendar year	
Total Emissions	1570
Total Emissions for Offsets	1491
Adjustments to GHG Emissions Reported in Previous Years	
Total Emissions	93
Total Emissions for Offsets	93
Credit owing from PCT at end of 2014 reporting year (if applicable – from May 15 Invoice):	
Credit Owing	\$0.00
Total Emissions for Offsets for the 2015 Reporting Year:	\$39,600.00

Actions Taken to Reduce Greenhouse Gas Emissions in 2015

The School District continued with their progressive stance in 2015. The District completed a two year project to upgrade one of our largest elementary schools to a new high efficiency Geo-Exchange heating system. In 2015 the Geo-Exchange field was tied into the new mechanical systems within the building allowing for full operation of the new systems. In addition, we updated the control strategy in the direct digital control system to take advantage of new control strategies.



New direct digital control systems were installed at Uplands Elementary and the upgrade was continued at KVR Middle School to help operate the facility more efficiently. These systems replaced older ones that had reached the end of their 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.

On a smaller scale, the District maintenance crews continued a program to replace existing outside lighting with higher efficiency LED technologies and examined several of our schools to find areas where they could increase 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.

Moving forward into the 2016 year, we are looking at upgrading several of our boiler plants, moving to LED lighting in some classrooms, installing a photo voltaic solar system to generate electricity for one of our facilities, and continuing to reduce our overall carbon footprint.



Bonnie Roller-Routley
Secretary-Treasurer



Wendy Hyer
Superintendent of Schools

2015 Carbon Neutral Action Report Survey

Organization Name:

School District No. 67

Please select your sector:

- School District

1) Stationary Sources (Buildings, Power Generators, Ext. Lighting) Fuel Combustion, Electricity use, Fugitive Emissions:

Please indicate which actions your PSO took in 2015:

Have developed an overall strategy/plan to reduce energy use in your organization's buildings inventory:

Yes

If Yes, please describe:

As existing mechanical systems require replacement, they are being replaced with new low carbon options. We are also reducing our building foot print to increase our overall efficiency.

Undertook evaluations of building energy use:

Yes

Performed energy retrofits on existing buildings:

Yes

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

No

Please list any other actions, programs or initiatives that your organization has introduced that support emissions reductions from buildings:

None

2) Mobile Sources (Fleet, Off-road/Portable Equipment) Fuel Combustion:

Indicate which actions your PSO took in 2015:

Have put in place an operations policy/program to support systematic reductions in fleet related emissions:

(e.g., program to convert fleet to renewable fuels)

Yes

If Yes, please describe:

We are using the right sizing principle, replacing older vehicles with smaller more efficient models.

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

Yes

Replaced existing vehicles with hybrid or electric vehicles:

No

Took steps to drive less than previous years:

No

Please list any other actions, programs or initiatives that your organization has introduced that support emissions reductions from fleet combustion:

None

3) Supplies (Paper):

Indicate which actions your PSO took in 2015:

Have put in place an operations policy/program to facilitate a systematic reduction in paper-related emissions:

(e.g., policy to purchase 100% Recycled Content; default to double-sided printing)

No

If yes, please describe:

none

Have put in place an operations policy/program to facilitate behavioural changes from paper use:

(e.g. awareness campaign to reduce paper use):

No

If yes, please describe:

none

Used only 100% recycled paper:

No

Used some recycled paper:

Yes

Used alternate source paper:

(e.g., bamboo, hemp, wheat etc.)

No

Please list any other actions, programs or initiatives that your organization has introduced that support emissions reductions from paper supplies:

none

4) Other Sustainability Actions:

Please note that this section is optional

Business Travel

Created a low-carbon travel policy or travel reduction goal:

(low-carbon = lowest emission of greenhouse gas per kilometer per passenger)

No

Encouraged alternative travel for business:

(e.g. bicycles, public transit, walking)

No

Encouraged or allow telework/working from home:

No

Other:

None

Education Awareness

Have a Green/Sustainability/Climate Action Team:

No

Supported green professional development:

(e.g. workshops, conferences, training)

Yes

Supported or provided education to staff about the science of climate change, conservation of water, energy and/or raw materials:

No

Other:

none

Adaptation Planning for Climate Risks

Have assessed whether increased frequency of extreme weather events and/or long term changes in climate will affect your organization's infrastructure, its employees and/or its clients:

No

Have incorporated these anticipated changes in climate into your organization's planning and decision making:

No

Other:

none

Other Sustainability Actions

Established a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models:

Yes

Have put in place an operations policy/program to facilitate the reduction and diversion of building occupant waste stream from landfills or incineration facilities:

(e.g., composting, collection of plastics, batteries)

No

Established green standards for goods that are replaced infrequently and/or may require capital funds to purchase:

(e.g., office furniture, carpeting, etc.)

No

Incorporated lifecycle costing into new construction or renovations:

No

Please list any other sustainability actions your organization has taken not listed above:

none