

# School District 79 (Cowichan Valley) 2015 Carbon Neutral Action Report



## Declaration statement

This is the 2015 Carbon Neutral Action Report for School District 79 Cowichan Valley. This report is for the period January 1st to December 31st, 2015 summarizing our emissions profile, the actions we have taken in 2015 to reduce our GHG emissions, the amount of offsets purchased to reach net zero emissions and our plan to continue reducing emissions in 2016 and beyond.

By June 30, 2016 School District 79 Cowichan Valley's final CNAR will be posted to our website at [www.sd79.bc.ca](http://www.sd79.bc.ca).

## Executive Summary

The Cowichan Valley School District is continuing to reduce their Greenhouse Gas emissions. The actions of the school district have a tremendous impact on the community it serves. In 2009 the district adopted a policy on Resource Management and Sustainability and formed a Sustainability Committee whose mandate was to deal with issues that contribute to the district's carbon footprint. Long term reduction goals were adopted which fall in line with the BC Energy Plan and Bill 44-2007: Greenhouse Gas Reduction Targets Act.

Due to reduced energy consumption over the past 8 years Cowichan Valley School District currently pays less for energy utilities than it did in the 2007/2008 school year. As well Cowichan Valley School District has been making an effort to switch to cleaner energy sources which has resulted in a large reduction in Greenhouse Gas emissions. These efforts are noticeable all across the district influencing students and staff to become more aware of environmental issues. Cowichan Valley School District continues to upgrade and optimize mechanical systems which have significantly reduced the district's carbon footprint. In 2015 the district initiated window and building envelope projects. These projects have a large impact on occupant comfort and heating energy consumption. The district has adjusted bus routing to reduce bus runs and driving distances. The district is also working with BC Hydro on a Workplace Conservation Awareness program to encourage energy efficient practices across the district.

## 2015 Greenhouse Gas Emissions

<b>School District 79 Cowichan Valley GHG Emissions and Offset for 2015 (tCO<sub>2</sub>e)</b>	
<b>GHG Emissions created in Calendar Year 2015:</b>	
Total Emissions (tCO <sub>2</sub> e)	1,870
Total Offsets (tCO <sub>2</sub> e)	1,370
<b>Adjustments to GHG Emissions Reported in Prior Years:</b>	
Total Emissions (tCO <sub>2</sub> e)	1
Total Offsets (tCO <sub>2</sub> e)	1
<b>Grand Total Offsets for the 2015 Reporting Year:</b>	
Grand Total Offsets (tCO <sub>2</sub> e)	1,370

### Distribution of Emissions

The total Greenhouse Gas Emissions for 2015 were 1,870 tonnes CO<sub>2</sub>e. 58.86% of this came from stationary fuel combustion, 33.06% came from mobile fuel combustion, 2.43% came from indirect emissions and 5.65% came from travel and supplies.

### Offsets Applied to Become Carbon Neutral in 2015

Of the total Greenhouse Gas Emissions 500 tonnes CO<sub>2</sub>e resulted from Carbon Neutral or Offset Exempt sources. As a result of this the total GHG Emissions required to be offset to become Carbon Neutral for 2015 was 1,370 tonnes CO<sub>2</sub>e. This resulted in a charge of \$34,250.00 plus GST.

### Changes to Greenhouse Gas Emissions and Offsets Reporting from Previous Years

Following the public release of School District 79 Cowichan Valley's 2014 Carbon Neutral Action Report it was determined that the total emissions for the 2014 calendar year were under reported by 1 tonne CO<sub>2</sub>e. Due to the effect of rounding the total Greenhouse Gas Emissions is still 1,870 tonnes CO<sub>2</sub>e, of that 1,370 tonnes CO<sub>2</sub>e require the purchase of offsets. Therefore the total payment to the Ministry of Environment is still \$34,250.00 plus GST.

### Retirement of Offsets

In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, School District 79 Cowichan Valley is responsible for arranging for the retirement of the offsets obligation reported above for the 2015 calendar year, together with any adjustments reported for past calendar years. The district hereby agrees that, in exchange for the Ministry of Environment ensuring that these offsets are retired on the district's behalf, the district will pay the associated invoice issued by the Ministry in an amount equal to \$25 per tonne of offsets retired on its behalf plus GST.

## Emissions Reduction Activities

### Actions Taken to Reduce Greenhouse Gas Emissions in 2015

The Transportation Department has continued to work on bus routes. This has resulted in a further reduction in the annual distance travelled by the bus fleet. The district has also replaced 3 buses with new more fuel efficient buses.

New high efficiency boilers were installed at two of the district's schools in 2015. This has resulted in a large reduction in natural gas consumption resulting in a reduction in greenhouse gas emissions. Window reduction and replacement as well as building envelope projects were started at 8 schools across the district. These projects will enhance occupant comfort and reduce the consumption of heating energy. The Operations Department has undertaken a number of lighting and lighting control projects throughout the district to reduce electrical consumption. These lighting projects include exterior LED lighting at two of the district's secondary schools. Two Continuous Optimization projects are underway at facilities which will result in a significant reduction in electricity, natural gas and fuel oil consumption.

### Plans to Continue Reducing Greenhouse Gas Emissions 2016 – 2017

The district will continue to implement projects in an effort to reduce energy consumption and Greenhouse Gas emissions. Lighting projects, including the installation of LED light fixtures at one of the district's largest secondary schools, will be implemented as well as continuing to install lighting controls where appropriate.

New high efficiency boilers are being installed at one of the district's largest secondary schools. This project will result in a large reduction in natural gas consumption. The district is also continuing the window reduction and replacement as well as building envelope projects at multiple sites. These projects will have a large impact on occupant comfort and the reduction of heating energy and greenhouse gas emissions.

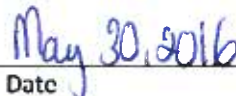
The communication of Energy Efficient and Sustainable practices will continue district wide in an effort to promote the overall awareness of sustainability issues.



Signature



Name (please print)

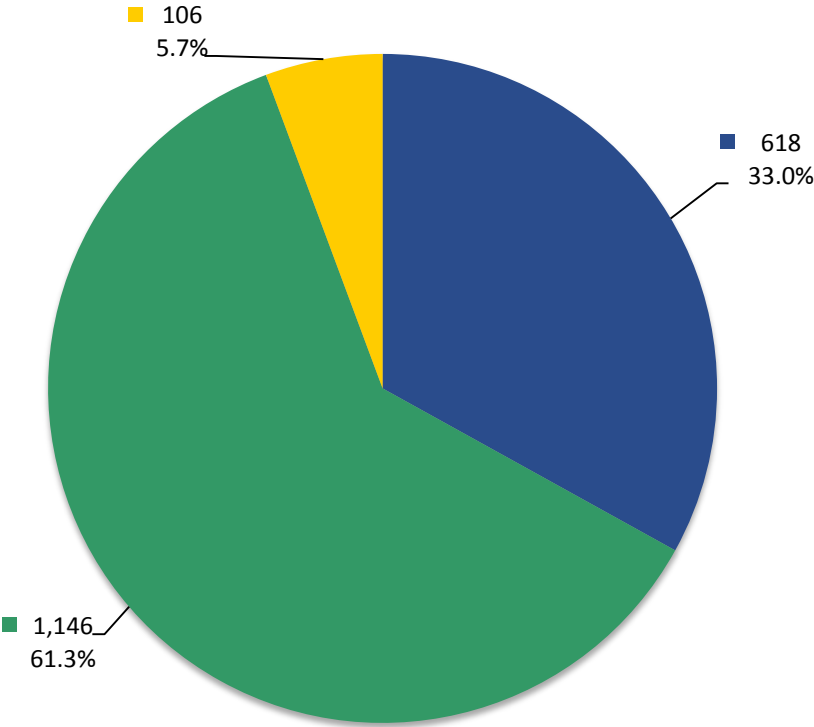


Date



Title

**School District 79 - Cowichan Valley  
Greenhouse Gas Emissions by Source  
for the 2015 Calendar Year (tCO<sub>2</sub>e\*)**



**Total Emissions: 1,870**

- 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 2015 (Generated May 25, 2016 10:25 AM)**  
Total offsets required: **1,370**. Total offset investment: **\$34,250**. Emissions which do not require offsets: **500** \*\*

\*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.

# 2015 Carbon Neutral Action Report Survey

Organization Name:

*School District 79 Cowichan Valley*

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:

*School District 79 originally developed a policy which addresses energy consumption and greenhouse gas emissions in 2009. The district has continued to address these issues through it's Strategic Energy Management Plan annual since that date.*

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:

*Nothing new, just a continuation of existing projects, programs and initiatives.*

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:

*The district has an anti-idling program as well as automatic idle shut-down in it's fleet of busses. All district vehicles have on board computers and/or GPS which monitors vehicle use.*

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:

Yes

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

*The district continues to make changes to bus routing to try to reduce both driving time and distance.*

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:

*(No response)*

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:

*(No response)*

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:

*(No response)*

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)

*Yes*

Encouraged or allow telework/working from home:

*No*

Other:

*(No response)*

Education Awareness

Have a Green/Sustainability/Climate Action Team:

*Yes*

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:

*Yes*

Other:

*(No response)*



## 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:

*Yes*

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

*No*

Other:

*(No response)*

## 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)

*Yes*

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:

*Yes*

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

*(No response)*