

# School District 79 (Cowichan Valley)

## 2014 Carbon Neutral Action Report



### **Declaration statement**

This is the 2014 Carbon Neutral Action Report for School District 79 Cowichan Valley. This report contains our 2014 emissions profile, the actions we have taken in 2014 to reduce our GHG emissions and our plans to continue reducing emissions in 2015 and beyond.

By June 30, 2015 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 is to deal with issues that contribute to the district's carbon footprint. Long term reduction goals have been 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 6 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 on 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 is continuing to upgrade and optimize mechanical systems which have significantly reduced the district's carbon footprint. The district has worked on bus routing to reduce bus runs and driving distances and has made modifications to buses to reduce emissions. The district is also working with BC Hydro on a Workplace Conservation Awareness program to encourage energy efficient practices across the district.

### **2014 Greenhouse Gas Emissions**

The total Greenhouse Gas Emissions for 2014 were 2,217 tonnes CO<sub>2</sub>e. 66.04% of this came from stationary fuel combustion and electricity, 29.58% came from mobile fuel combustion and 4.38% came from supplies.

### **Offsets Applied to Become Carbon Neutral in 2014**

Of the total Greenhouse Gas Emissions 516 tonnes CO<sub>2</sub>e resulted from the operation of school buses. As a result of this the total GHG Emissions required to be offset to become Carbon Neutral for 2013 was 1,701 tonnes CO<sub>2</sub>e. This resulted in a charge of \$42,525.00 plus GST.

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

Following the public release of School District 79 Cowichan Valley's 2013 Carbon Neutral Action Report, it was determined that the total emissions for the 2013 calendar year were under reported by 2 tonnes CO<sub>2</sub>e. The total Greenhouse Gas Emissions for 2013 were 2,656 tonnes CO<sub>2</sub>e, of that 2,141 tonnes CO<sub>2</sub>e required the purchase of offsets. The difference in offsets have been paid to the Climate Action Secretariat and applied against our 2013 emissions.

This made the total payment to the Climate Action Secretariat \$42,575.00 plus GST.

## Emissions Reduction Activities

### Actions Taken to Reduce Greenhouse Gas Emissions in 2014

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. Buses have also been converted to DEF emissions reduction systems to reduce exhaust emissions.

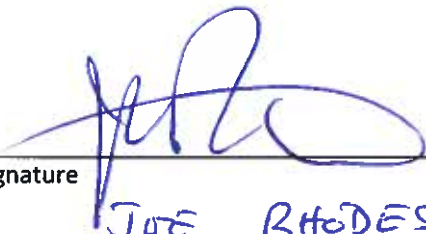
A Biomass boiler was installed at one of the district's secondary schools. This has resulted in a large reduction in GHG emissions. A Heat Pump system was added at an elementary school. This project has resulted in large reduction in electricity consumption. The Operations Department has completed a number of lighting and lighting control projects throughout the district to reduce electrical consumption. Continuous Optimization projects have been completed at three facilities which have resulted in a significant reduction in electricity and natural gas consumption.

### Plans to Continue Reducing Greenhouse Gas Emissions 2015 – 2016

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 will be implemented as well as continuing to install lighting controls where appropriate.

The boiler plant at a secondary school is being upgraded in 2015. This project will result in a large reduction in natural gas consumption. The district is also under-taking building envelope projects at 7 facilities in 2015. These projects will have a large impact on the reduction of electricity and natural gas.

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

Signature		Date	May 28, 2015
Name (please print)	JOE RHODES	Title	Superintendent.

# 2014 Carbon Neutral Action Report (CNAR) - Part 2 ACTIONS

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## Organization Name

School District 79 Cowichan Valley

## Actions Taken to Reduce Emissions

### 1) Stationary Fuel Combustion, Electricity (Buildings): Indicate which actions were taken in 2014:

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:

Continually monitor the energy consumption and emissions of all the buildings across the district.  
All mechanical systems are maintained with energy conservation as a prime focus.  
Continue to upgrade electrical systems to improve energy efficiency.

### 2) Mobile Fleet Combustion (Fleet and other vehicles): Indicate which actions were taken in 2014:

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

Yes

Took steps to drive less than last year

Yes

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

Our buses have been converted to DEF emissions reduction systems to reduce exhaust emissions.  
Have implemented a fleet GPS program on all vehicles.

**3) Supplies (Paper):Indicate which actions were taken in 2014:**

Used less paper than previous year

Yes

Used only 100% recycled paper

No

Used some recycled paper

Yes

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

No

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

Staff are encouraged to reduce printing when ever possible.

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### **Actions Taken to Reduce Emissions - continued**

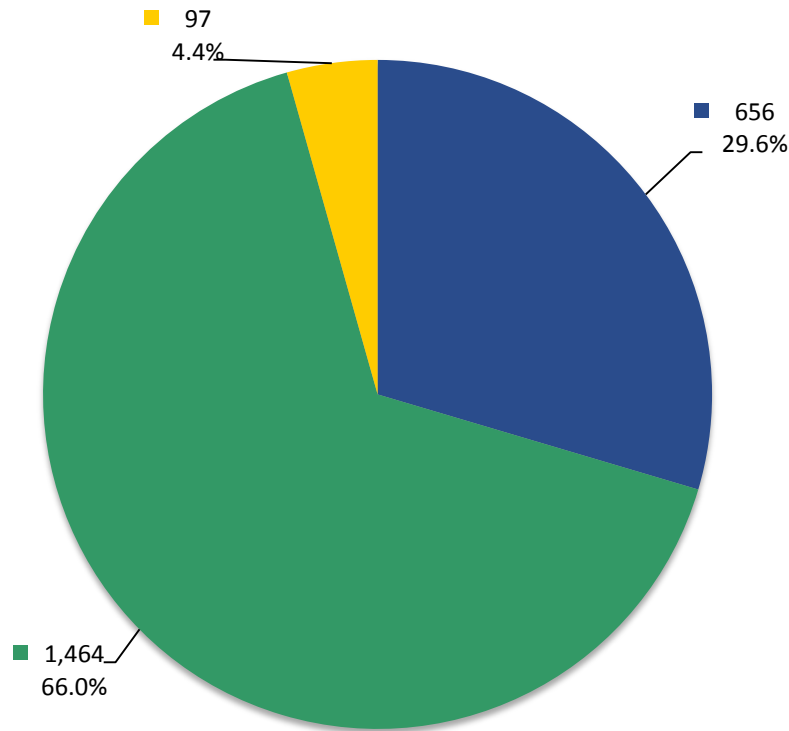
Explain how you plan to continue minimizing emissions in 2015 and future years:

The main focus for our district to minimize emissions is to continue to improve the efficiency of heating systems. We are currently under-taking a major boiler plant upgrade in one of our secondary schools. Another priority is to continue reducing the use of fuel oil for heating where ever possible.

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

No

**School District 79 - Cowichan Valley  
Greenhouse Gas Emissions by Source  
for the 2014 Calendar Year (tCO<sub>2</sub>e\*)**



**Total Emissions: 2,217**

- 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 2014 (Generated June 23, 2015 3:34 PM)**

Total offsets required: **1,701**. Total offset investment: **\$42,525**. Emissions which do not require offsets: **516** \*\*

\*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.