

School District 79 (Cowichan Valley) 2016 Carbon Neutral Action Report



Declaration statement

This is the 2016 Carbon Neutral Action Report for School District 79 Cowichan Valley. This report is for the period January 1st to December 31st, 2016 summarizing our emissions profile, the actions we have taken in 2016 to reduce our GHG emissions, the amount of offsets purchased to reach net zero emissions and our plan to continue reducing emissions in 2017 and beyond.

By June 30, 2017 School District 79 Cowichan Valley's final CNAR will be posted to our website at www.sd79.bc.ca.

Executive Summary

The Cowichan Valley School District is continuing to work towards reducing 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 9 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 2016 the district continued with its window and building envelope projects. The district also made major upgrades to one of its largest boiler systems. 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.

2016 Greenhouse Gas Emissions

School District 79 Cowichan Valley GHG Emissions and Offset for 2016 (tCO₂e)	
GHG Emissions created in Calendar Year 2016:	
Total Emissions (tCO ₂ e)	2,129
Total Offsets (tCO ₂ e)	1,409
Adjustments to GHG Emissions Reported in Prior Years:	
Total Emissions (tCO ₂ e)	86
Total Offsets (tCO ₂ e)	85
Grand Total Offsets for the 2016 Reporting Year:	
Grand Total Offsets (tCO ₂ e)	1,494

Distribution of Emissions

The total Greenhouse Gas Emissions for 2016 were 2,129 tonnes CO₂e. 56.14% of this came from stationary fuel combustion, 37.71% came from mobile fuel combustion, 2.07% came from indirect emissions and 4.08% came from travel and supplies.

Offsets Applied to Become Carbon Neutral in 2016

Of the total Greenhouse Gas Emissions 720 tonnes CO₂e 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 2016 was 1,409 tonnes CO₂e. This resulted in a charge of \$35,225.00 plus GST.

Changes to Greenhouse Gas Emissions and Offsets Reporting from Previous Years

Following the public release of School District 79 Cowichan Valley's 2015 Carbon Neutral Action Report it was determined that the total emissions for the 2015 calendar year were under reported by 86 tonne CO₂e. Of the total Greenhouse Gas Emissions 1 tonne CO₂e resulted from Carbon Neutral or Offset Exempt sources leaving 85 tonnes CO₂e which require the purchase of offsets. This gives an overall total of 1,494 tonnes CO₂e which require the purchase of offsets. Therefore, the total payment to the Ministry of Environment is \$37,350.00 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 2016 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 2016

The Transportation Department has continued to work on bus routes. Due to an overall increase of ridership the actual distance travelled has increased but through efficient routing this increase has been minimized. The district has also replaced 2 buses with new more fuel efficient buses.

New high efficiency boilers were installed at one of the district's largest secondary schools in 2016. This has resulted in a large reduction in natural gas consumption giving a reduction in greenhouse gas emissions. Window reduction and replacement as well as building envelope projects were started or continued at 6 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 the continuation of exterior LED lighting at two of the district's secondary schools and the installation of interior LED lighting in one of the districts 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 2017 – 2018

The district will continue to implement projects in an effort to reduce energy consumption and Greenhouse Gas emissions. The district will continue with lighting projects, including the continuation of the installation of interior LED light fixtures at one of the district's largest secondary schools and installing lighting controls where appropriate.

The district is also continuing 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



Date

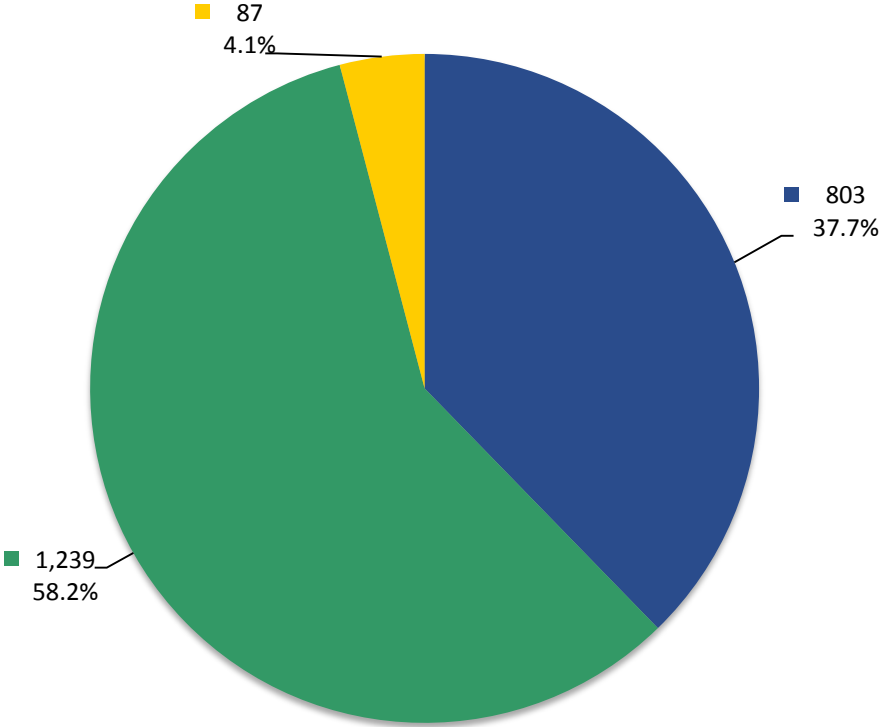


Name (please print)



Title

**School District 79 - Cowichan Valley
Greenhouse Gas Emissions by Source
for the 2016 Calendar Year (tCO₂e*)**



Total Emissions: 2,129

- 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 2016 (Generated June 12, 2017 9:41 AM)

Total offsets required: **1,409**. Total offset investment: **\$35,225**. Emissions which do not require offsets: **720** **

*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.

2016 Carbon Neutral Action Report Survey

Part One (external)

Contact Name(s):

Brian Branting

Organization Name:

School District 79 Cowichan Valley

Please select your sector:

- School District

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

During 2016, did your organization take any of the following actions to support emissions reductions from buildings?

Select all that apply

- Performed energy retrofits of the organization's buildings.: 7 buildings.

Briefly describe your organization's plans to continue reducing emissions from its stationary sources in future years.

Although the consumption is relatively low we still have one active site that is still using heating fuel as a primary heat source. We are planning to convert this to a cleaner source in the near future.

During 2016, did your organization participate in utility-sponsored energy demand management program(s) (e.g. BC Hydro's Energy Management (Manager))?

No

If yes, please describe briefly:

(No response)

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

During 2016, did your organization take any of the following actions to support emission reductions from its mobile sources?

Select all that apply

- Replaced existing vehicles with more fuel efficient vehicles (gas/diesel).: 2 Buses
- Other actions? Please describe briefly.: We continue to work on our bus routes to make them more efficient and reduce travel distances.

Briefly describe your organization's plans to continue reducing emissions from its mobile sources in future years.

We will continue to try and make our bus routes more efficient.

3) Supplies (Paper):

During 2016, did your organization take any of the following actions to support emissions reductions from paper supplies?

Select all that apply

-
- Other actions? Please describe briefly.: We continue to use paper with a minimum of 30% recycled content when ever possible. We also have implimented a system so that copy jobs do not print until the person is ready to recieve them. This reduces the number of lost print jobs.
-

Briefly describe your organization's plans to continue reducing emissions associated with its office paper use in future years.

We will continue to promote the use of recycled paper where ever possible.

4) Other Sustainability Actions:

Business Travel:

During 2016, did your organization take any of the following actions to support emissions reductions from business travel?

Select all that apply

- Encouraged alternative travel for business (e.g. bicycles, public transit, walking)
-

Education Awareness:

During 2016, did your organization have any of the following programs or initiatives to support sustainability education and awareness?

Select all that apply

- Green, Sustainability or Climate Action Team
 - Support for professional development on sustainability (e.g. workshops, conferences, training)
-

Other Sustainability Actions:

During 2016, did your organization have any of the following programs or initiatives to support sustainability?

Select all that apply

- An operations policy or program to facilitate the reduction and diversion of building occupant waste (e.g., composting, collection of plastics, batteries) from landfills or incineration facilities
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