

# School District 79 (Cowichan Valley)

## 2018 Carbon Neutral Action Report



### Declaration statement

This is the 2018 Carbon Neutral Action Report for School District 79 Cowichan Valley. This report is for the period January 1st to December 31st, 2018 summarizing our emissions profile, the actions we have taken in 2018 to reduce our GHG emissions, the amount of offsets purchased to reach net zero emissions and our plan to continue reducing emissions in 2019 and beyond.

By June 30, 2019 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 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 10 years Cowichan Valley School District's electrical consumption was down by over 40% and natural gas consumption was down by over 30% for the 2017/18 school year compared to the 2007/08 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 2018 the district continued with its window and building envelope projects. Another major project was the installation of heat pumps for all of the district's portables. 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 has also continued to do exterior lighting upgrade projects.

## 2018 Greenhouse Gas Emissions

<b>School District 79 Cowichan Valley GHG Emissions and Offset for 2018 (tCO<sub>2</sub>e)</b>	
<b>GHG Emissions created in Calendar Year 2018:</b>	
Total Emissions (tCO <sub>2</sub> e)	2,167
Total Offsets (tCO <sub>2</sub> e)	1,783
<b>Adjustments to GHG Emissions Reported in Prior Years:</b>	
Total Emissions (tCO <sub>2</sub> e)	81
Total Offsets (tCO <sub>2</sub> e)	81
<b>Grand Total Offsets for the 2016 Reporting Year:</b>	
Grand Total Offsets (tCO <sub>2</sub> e)	1,864

### Distribution of Emissions

The total Greenhouse Gas Emissions for 2018 were 2,167 tonnes CO<sub>2</sub>e. 57.07% of this came from stationary fuel combustion, 35.66% came from mobile fuel combustion, 2.26% came from indirect emissions and 5.01% came from travel and supplies.

### Offsets Applied to Become Carbon Neutral in 2018

Of the total Greenhouse Gas Emissions 384 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 2018 was 1,783 tonnes CO<sub>2</sub>e. This resulted in a charge of \$44,575.00 plus GST.

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

Following the public release of School District 79 Cowichan Valley's 2017 Carbon Neutral Action Report it was determined that the total emissions for the 2017 calendar year were under reported by 81 tonne CO<sub>2</sub>e. This resulted in an additional 81 tonnes CO<sub>2</sub>e which require the purchase of offsets. This gives an overall total of 1,864 tonnes CO<sub>2</sub>e which require the purchase of offsets. Therefore, the total payment to the Ministry of Environment is \$46,600.00 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 2018 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 2018

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 1 bus with a new more fuel efficient bus.

A Building Envelope project was started at a school that reopened in 2018. This project will continue through 2019. This projects will enhance occupant comfort and reduce the consumption of heating energy. The Operations Department has undertaken a number of lighting projects throughout the district to reduce electrical consumption. These lighting projects include a small interior LED lighting project at one of the district's schools as well as exterior and parking lot LED lighting at 2 other elementary schools. Continuous Optimization projects are coming to completion at 2 facilities which will result in a significant reduction in electricity, natural gas and fuel oil consumption. The district has also started doing annual end-to-end reviews of DDC systems at an additional 4 schools. Now all of the schools in the district have end-to-end reviews of their DDC systems annually. This identifies and corrects issues that occur throughout the year which cause inefficiencies in the heating systems.

## Plans to Continue Reducing Greenhouse Gas Emissions 2019 – 2020

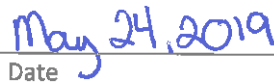
The district will continue to implement projects in an effort to reduce energy consumption and Greenhouse Gas emissions. The district will continue with lighting projects, including the continuation of the installation of exterior and parking lot LED light fixtures at schools across the district.

The district will be starting major heating plant upgrades at 2 elementary schools. The district is also continuing a building envelope project at one site. 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