

# 2019 CARBON NEUTRAL ACTION REPORT



# Table of Contents

<b>Executive Summary</b> .....	<b>Pg. 3</b>
<b>Greenhouse Gas Emissions</b> .....	<b>Pg. 4</b>
<b>Declaration Statement</b> .....	<b>Pg. 5</b>
<b>Offsets Applied to Become Carbon Neutral</b> .....	<b>Pg. 6</b>
<b>Changes to Greenhouse Gas Emissions and Offsets</b> .....	<b>Pg. 6</b>
<b>Emissions Reduction Activities</b> .....	<b>Pg. 7</b>
<b>Retirement of Offsets</b> .....	<b>Pg. 8</b>

# Executive Summary

On behalf of the Board of Education No. 61 (Greater Victoria) I am pleased to submit our Carbon Neutral Action Plan for 2019. Our 2019 report clearly demonstrates our District's ongoing commitment to the reduction of our greenhouse gas emissions. Our Board, as in previous years, continues to work diligently, to improve the learning environment for students and staff through it's demonstrated support and leadership in the reduction of our carbon footprint.

The integration of environmentally sustainable considerations continues to influence all of our business decisions supported by our Board approved Environmental Change Policy.

Recognizing the importance of reducing our carbon footprint, a focus on energy savings and greenhouse gas emission reductions continue to be a priority in our ongoing commitment towards carbon neutrality. Projects that include the installation of high efficiency condensing boilers, heating control upgrades, and the installation of energy efficient windows. We continue to demonstrate to students, staff and community the importance of environmental sustainability fully supported by our Board of Trustees' ongoing commitment towards carbon neutrality.

As part of our 2019 energy savings program we have replaced more of our older inefficient heating systems, installed new heating controls, and replaced windows to ensure energy efficiency and were part of an energy program through BC Hydro. In the coming year, we have plans to hire an Energy Manager who will be invaluable and will work on auditing our buildings while we continue to complete these very successful energy savings initiatives. These initiatives will allow us to move forward in our efforts to further reduce our carbon footprint while providing opportunities to modernize our schools and fleet.

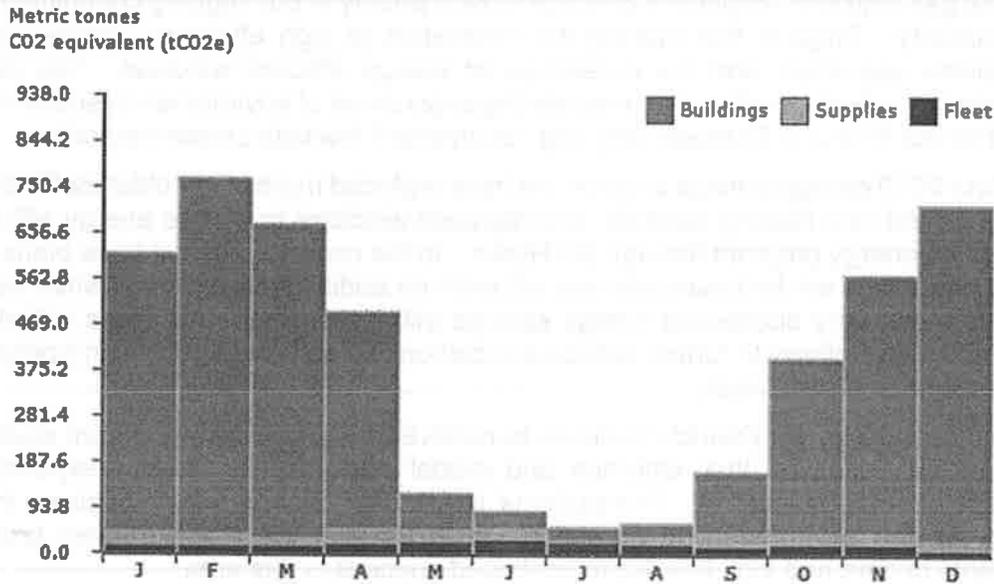
As reported previously, our District continues to receive tremendous support from students, staff and parents for initiatives that embrace and model sustainability, social responsibility and reductions to our carbon footprint. The students' passion for change and enthusiasm in reducing our impact on the environment is an inspiration to us all. We are extremely proud of our achievements to date and look forward to continued success in this area.

For the 2019 reporting period the Greater Victoria school district has used the 2018 total offsets of 4,849 tons. With an adjustment of 19 tons, for a net offset of 4868. There was an adjustment to the GHG emissions for previous year totaling -258 tons. The total investment for these offsets is \$120,566.25.

The Board of Education No. 61 (Greater Victoria) clearly recognizes its role as a leader in environmental stewardship and will continue to support initiatives that will reduce energy consumption and reduce our impact on the environment.

## School District 61 - Greater Victoria Greenhouse Gas Emissions by Source for the 2018 Calendar Year (tCO<sub>2</sub>e\*)

### Total Emissions Calendar Year 2018 School District 61 - Greater Victoria



Click on the bars to view data for each month

**Total Emissions: 4,868**

#### Offsets Applied to Become Carbon Neutral in 2018

Total offsets required: **4,868**. Total offset investment: **\$120,566.25**. Emissions which do not require offsets: **19**

\*\*

\*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.

**Declaration statement:** This Carbon Neutral Action Report for the period January 1<sup>st</sup>, 2019 to December 31<sup>st</sup>, 2019 has utilized the 2018 results and summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2019 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2020 and beyond.

By June 30, 2020 the Greater Victoria's School District's final *Carbon Neutral Action Report* will be posted to our website at <https://healthyschools.sd61.bc.ca>

## Offsets Applied to Become Carbon Neutral in 2019

**Greater Victoria School District #61 offsets applied to become Carbon Neutral in 2019  
(using 2018 data)**

Total Emissions: 4,868 tonnes

Total Offsets: 19 tons

Total Adjustments: 256

Total emissions that require an offset investment: **\$120,566.25 for 2018**

*\*\*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.*

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

Year	Totals	Emissions	Offsets Purchased
2010	6082	6096	\$152,050
2011	6950	6974	\$173,750
2012	6362 + 22	6387	\$159,050
2013	5545 - 172	5373	\$134,325
2014	5041-20	5021	\$125,525
2015	4823-19	4804	\$120,100
2016	4,449+228	4,677	\$116,925
2017	5290+16	5,306	\$132,250
2018	4849 + 19	4,868	\$120,566
2019	TBD	TBD	TBD

# Emissions Reduction Activities

## Actions Taken to Reduce Greenhouse Gas Emissions in 2019

- Boiler replacement at Richmond Elementary. Replacement of the 2 original 1960 boilers to 2 new energy-efficient condensing boilers.
- Window replacements. Phase 2 of the window replacement program at Mt Doug was completed. Approximately 15% of the existing single-pane windows were replaced with new energy-efficient windows.

## Plans to Continue Reducing Greenhouse Gas Emissions

In 2020 we will work towards reducing our energy consumption and greenhouse gas emissions by focusing on upgrading and replacing the aging heating systems and controls, replacing aging windows, upgrading more of our aging fleet and implementing an energy awareness strategy across the school district.

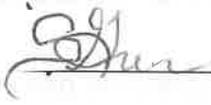
As a public sector organization our ability to continue to reduce greenhouse gas emissions is dependent on government funding. Our Board remains committed to support energy saving initiatives through Ministry of Education funding received for major capital improvements and the Ministry of Education's Annual Facilities Grant (AFG) and the newly introduced Carbon Neutral Capital Plan (CNCP).

- The Greater Victoria School District No. 61 has a link for Green Initiatives on the School District Website: <https://healthyschools.sd61.bc.ca>

**Retirement of Offsets:**

In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, the Greater Victoria School District is responsible for arranging for the retirement of the offsets obligation reported above for the 2019 calendar year, together with any adjustments reported for past calendar years. The Organization hereby agrees that, in exchange for the Ministry of Environment ensuring that these offsets are retired on the Organization's behalf, the Organization will pay within 30 days, the associated invoice to be issued by the Ministry in an amount equal to \$25 per tonne of offsets retired on its behalf plus GST.

**Executive sign-off:**

 \_\_\_\_\_  
Signature Date **May 28/2020**

**Shelley Green** \_\_\_\_\_  
Name (please print), CEO, COO or Superintendent Title **Superintendent**

**Confirmation number:** 00C5D4F5

**Submitted date:** 2020-06-30 12:26:52 Pacific Daylight Time

# Carbon Neutral Action Report Survey - 2019

Public sector organizations (PSOs) are required to complete this survey, in addition to a Carbon Neutral Action Report (CNAR) as mandated by BC's [Climate Change Accountability Act](#) and the [Carbon Neutral Government Regulation](#).

Due to the COVID-19 pandemic, the following [Directive](#) was issued on March 31, 2020. Certain deadlines were also extended for the 2019 reporting year (see below).

## **March 31, 2020 Directive:**

*Under my authority as the Director for the purposes of the Act, and under the authority delegated to me in Section 6 of the Carbon Neutral Government Regulation, I hereby direct that all ministries and Public Sector Organizations covered by the Carbon Neutral Government requirement shall use their 2018 GHG emissions as a temporary estimate for their actual 2019 GHG emissions, for the purposes of the 2019 Carbon Neutral Action Reports and 2019 Carbon Neutral Government reporting required under the Climate Change Accountability Act.*

Neil Dobson, Executive Director, Clean BC Implementation  
Climate Action Secretariat

Although 2018 emissions data will be used as a placeholder for 2019, **all other (qualitative) components of the CNAR and CNAR Survey are to be completed with information from 2019 (e.g., actions taken or planned to reduce emissions)**. The only change to the survey is that the deadline was extended by one month to June 30, 2020.

This survey is divided into two parts:

**Part 1** - Will be made public on the Climate Action Secretariat (CAS) [website](#) after June 30, 2020; however, it will not be appended directly to each individual PSO CNAR as was done in previous years. This section collects details about actions taken or planned to reduce emissions and is intended to supplement the legislative requirements in your CNAR.

**Part 2** - Will NOT be made public. Information you provide in this section is important and will be used internally to help CAS staff with planning for emissions reduction and climate change adaptation initiatives. Although not required, PSOs are highly encouraged to complete Part 2.

**Note:** Survey progress can be saved at any time by clicking the "Save and continue later" button at the bottom of each page. A new window will open and you will be asked to provide your name and email. An email will be sent to you from [Carbon.Neutral@gov.bc.ca](mailto:Carbon.Neutral@gov.bc.ca) with the subject line: "Questionnaire Link", which will include a hyperlink for the "Project: Carbon Neutral Action Report Survey – Broader Public Sector 2019". You can then continue responding at another time or email the hyperlink to a colleague to complete remaining section(s).

May 29, 2020	<ul style="list-style-type: none"><li>The final, signed version of the <b>CNAR</b> (or Small Emitters Form) must be submitted by email to: <a href="mailto:Carbon.Neutral@gov.bc.ca">Carbon.Neutral@gov.bc.ca</a></li></ul>
June 30, 2020*	<ul style="list-style-type: none"><li>Ministry of Environment and Climate Change Strategy must post a final CNAR for each organization on the BC Government's CNG <a href="#">website</a> and each PSO is encouraged to post the report on their website.</li><li>The <b>CNAR Survey</b> (optional for Small Emitters) must be completed and submitted online. *Deadline extended from May 29, 2020.</li><li><u>All offset invoice payments must be submitted to CAS.</u></li></ul>
Sept 30, 2020*	<ul style="list-style-type: none"><li><b>Clean Government Reporting Tool (CGRT) Data Entry</b> must be completed for the 2019 reporting year.</li></ul>

	*Deadline extended from April 30, 2020.
Oct 15, 2020*	<ul style="list-style-type: none"> <li>• <b>Self-Certification checklist</b> must be completed, signed and submitted by email to: <a href="mailto:Carbon.Neutral@gov.bc.ca">Carbon.Neutral@gov.bc.ca</a>.</li> </ul> *Deadline extended from May 15, 2020.

\*See the [Carbon Neutral Government – Program Requirements website](#) for more information on program requirements, timelines and templates.

## PART 1 - Included as part of your public CNAR report.

Reminder that Part 1 will be made public on the CAS [website](#).

<b>Contact Name:</b>	<i>Marni Vistisen-Harwood</i>
<b>Contact Email:</b>	<i>mvistisen@sd61.bc.ca</i>
<b>Organization Name:</b>	<i>Greater Victoria School District #61</i>
<b>Role – Please select the best category for your current role with your organization. If more than one individual completed the survey, multiple categories may be selected:</b>	<i>Facilities/Operations Manager/Coordinator</i>
<b>Please select your sector:</b>	<i>School District (SD)</i>

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

Actions taken by your organization in 2019 to support emissions reductions from buildings

<b>Do you have a strategy to reduce emissions from stationary sources?</b>	<i>No</i>
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Whether you have a strategy or not, briefly describe your organization's plans to continue reducing emissions from stationary sources:

<b>Over the medium-term term (1-5 years)</b>	<i>Annual Facilities Grant submissions are reviewed and approved by the Ministry and subject to funding. The projects in the grant assist to reduce GHG emissions. The school district is in the process of LED lighting upgrades and building a climate action plan following best practices.</i>
<b>Over the long term (6-10 years)</b>	<i>The SD will applying for grant funding through the Ministry to continue with window, boiler upgrades and projects to reduce emissions</i>

Please describe your strategy's goals (if any) related to energy audits.

*The SD is working to place all assets into one platform to better understand when items require replacement and how best to get the optimal performance. The SD is working with BC Hydro to hire an energy manager to perform audits on our facilities.*

What % on average of your building portfolio has an energy audit completed each year (if any)?

*The SD is in the process of hiring an Energy Manager who will perform Energy audits on SD facilities.*

Please describe your strategy's goals (if any) related to building retrofits.

*The SD applies for funding through the Ministry of Education for various retrofits/projects. We try and complete up to \$1M of roofing work as well as a building envelope and boiler upgrades yearly. This is budget dependent on Ministry approval and funding and varies year to year.*

Minor retrofits (e.g. low cost, easy to implement measures including caulking, lighting, adding roof insulation, etc.)

*The SD is continually completing minor retrofits with the focus on expanding the volume of energy focused projects.*

Major retrofits (e.g. replacing windows and doors, equipment replacement such as boilers, etc.)

*Approximately 2 major retrofits are funded annually due to budget constraints*

Deep retrofits (e.g. replacing roof, replacing the heating, ventilation and air-conditioning system with a renewable technology like a ground-source heat pump, etc.)

*4% of SD roofs are completed yearly with an annual budget of \$1M. Ministry funds have allowed for one boiler retrofit a year and continual window upgrades.*

Please describe your strategy's re/retro-commissioning goals (if any)?

*The SD is working on developing a Climate Action Plan with re-commissioning as a topic, but this is budget dependant.*

What % on average of your building portfolio do you recommission each year?

*0%*

Do you keep records of Refrigerant gases<sup>1</sup> category and refilling volumes?

[1] Fugitive emissions from stationary cooling equipment are attributed to the leakage and loss of HFC and PFC based coolants from air conditioning and commercial type refrigeration systems. Coolant loss can occur during the manufacturing, operation, and disposal of such equipment. Gases that may be reported via CGRT include HFC R-134, HFC R-134a, HFC R-404a, HFC R-407c, HFC R-410a.

*No*

What, if any, mitigation approaches have been considered? Please describe.

*n/a*

How many newly constructed buildings received at least LEED Gold certification in 2019?

*No new buildings were constructed in 2019.*

How many newly constructed buildings did not receive LEED Gold certification?

*0*

Please explain why LEED Gold certification was not obtained for those new buildings.

*No new buildings were constructed in 2019*

## Mobile Sources (Fleet Vehicles, Off-road/portable Equipment): Fuel Combustion:

Actions taken by your organization in 2019 to support emissions reductions from mobile sources?

Do you have a strategy to reduce emissions from mobile sources?

Yes

Whether you have a strategy or not, briefly describe your organization's plans to continue reducing emissions from mobile sources:

Over the medium-term term (1-5 years)

*The SD will continue to service all vehicles every 8,000 km or every 6 months, and continue to track fuel consumption to ensure emissions are kept to a minimum. The SD will continue to enforce the SD no idling policy.*

Over the long term (6-10 years)

*The SD is working on a plan to update our aging fleet and potentially purchase alternate fuel vehicles, including electric vehicles*

How many fleet vehicles did you purchase from the following categories:

Electric Vehicle – EV - (e.g., Nissan Leaf, Chevy Bolt)

0

“Plug In” Electric Vehicle – PHEV (e.g., plug-in Prius, Chevy Volt)

0

Hybrid vehicle – HEV – non “Plug In”- (e.g., Toyota Highlander Hybrid)

0

Hydrogen fuel cell vehicle

0

Natural gas/propane

0

Gas/diesel vehicle

2

If you purchased new gas/diesel vehicles, can you briefly explain why vehicles from the other categories were not chosen?

*Cost prohibitive and when purchasing buses suppliers limited.*

Actions taken by your organization in 2019 to support emissions reductions from mobile sources? (Continued)

How many existing EV charging stations does your organization have in each category:

Level 2?

7

Level 3?

0

How many level 2 stations (if any) are specifically for your fleet vehicles?

As defined as Level 2 stations only your organization's fleet vehicles may use

0

How many level 3 stations (if any) are specifically for your fleet vehicles?

As defined as Level 3 stations only your organization's fleet vehicles may use

0

How many EV charging station(s) did you install in 2019 in each category:

Level 2?

0

Level 3?

0

How many level 2 stations (if any) were installed specifically for your fleet vehicles?

As defined in the previous section

0

How many level 3 stations (if any) were installed specifically for your fleet vehicles?

As defined in the previous section

0

Please briefly describe any other related actions, (e.g. charging station feasibility studies, electrical panel upgrades, etc.)

*The SD is working on a Climate Action Plan and charging stations will be part of this plan.*

Please indicate the total number of the vehicles in the following vehicle classes that are in your current fleet

**Definitions:**

- Light duty vehicles (LDVs) are designated primarily for transport of passengers <13 and GVWR<3900kg
- Light duty trucks (LDTs) are designated primarily for transport of light-weight cargo or that are equipped with special features such as four-wheel drive for off-road operation (include SUVs, vans, trucks with a GVWR<3,900kg )
- Heavy duty vehicles (HDV) includes vehicles with a GVWR>3,900 kg (e.g. ¾ tonne pick-up truck, transport trucks)

Light duty vehicles (LDVs)

Electric Vehicles – EV - (e.g., Nissan Leaf, Chevy Bolt)

0

"Plug In" Electric Vehicle – PHEV -- (e.g., plug-in Prius, Chevy Volt)

0

Hybrid vehicles – HEV – (e.g., non "Plug In"- older Toyota Prius, Toyota Camry hybrid)

0

Hydrogen fuel cell vehicles

0

Natural gas/propane

0

Gas/diesel

0

#### Light duty trucks (LDTs)

Electric Vehicles – EV

0

"Plug In" Electric Vehicle – PHEV

0

Hybrid vehicles – HEV – (e.g., non "Plug In"- older Ford Escape Hybrid, older Chevrolet Silverado pickup hybrid, etc)

0

Hydrogen fuel cell vehicles

0

Natural Gas/propane

1

Gas/diesel

18

#### Heavy duty vehicles (HDV)

Electric Vehicles – EV

0

"Plug In" Electric Vehicle – PHEV

0

Hybrid vehicles – HEV – (e.g., non "Plug In")

0

Hydrogen fuel cell vehicles

0

Natural Gas/propane

1

Gas/diesel

49

Actions taken by your organization in 2019 to support emissions reductions from paper supplies.

Briefly describe your organization's plans to continue reducing emissions from paper use:

Over the medium-term (1-5 years)

*The SD has implemented a paperless work order system and is working towards a paperless invoicing process. There is a directive to schools to print only essential documents and printers are programmed to print double sided. The SD is currently working to remove all none essential and individual printers.*

Over the long term (6-10 years)

*Work towards a paperless invoicing system and digitizing all documents.*

Do you have an awareness campaign focused on reducing office paper use?

Yes

Purchased alternate source paper (bamboo, hemp, wheat, etc.)

Yes