



## **School District No. 6 (Rocky Mountain)**

### **2019 Carbon Neutral Action Report**

#### **Executive Summary**

Rocky Mountain School District continues to focus on greenhouse gas emission reduction. The main source of the energy and greenhouse gas savings throughout the School District is the result of implementing building energy retrofit projects, and changes to the operation of buildings and vehicles. The School District's focus on environmental stewardship has been a key driver for success in reducing greenhouse gas emissions. This focus has led to the prioritization of staffing resources, and capital projects, as well as education programs focussing on energy reduction and environmental stewardship.

On-going benchmarking of energy performance of buildings, vehicles, and other energy consumption continues. Our Operations Department continually monitors energy consumption and focuses on energy reduction initiatives which ultimately reduce carbon emissions.

Paul Carriere  
Superintendent of Schools



## **2019 Greenhouse Gas Emissions**

This Carbon Neutral report for the period January 1, 2019 to December 31, 2019 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.

<b>School District No. 6 (Rocky Mountain)</b>	
<b>GHG Emissions and Offsets for 2019 (TCO2E)</b>	
<b>GHG Emissions created in calendar year 2019</b>	
Total Emissions	2022
Total BioCO <sub>2</sub>	24.7
Total Emissions for Offsets	1506
<b>Adjustments to GHG Emissions Reported in Previous Years</b>	
Total Emissions	0
Total Emissions for Offsets	0
<b>Credit owing from PCT at end of 2018 reporting year:</b>	
Credit Owing	0
Total Emissions for Offsets for the 2019 Reporting Year (from Offset Invoice):	1506
Offset Investment (\$25 per tCO <sub>2</sub> e)	\$37,650.00



## **Emissions Reduction Activities**

### **Actions Taken by the Rocky Mountain School District to Reduce Greenhouse Gas Emissions in 2019**

Projects to reduce energy consumption and greenhouse gas emissions implemented in 2019 included:

- Golden Secondary School lighting upgraded with LED high efficiency light fixtures complete with dimming controls.
- David Thompson Secondary School upgraded with LED high efficiency light fixtures complete with dimming controls.
- Edgewater Elementary School received a building envelope upgrade which included installation of new high efficiency windows, new exterior doors, new continuous exterior thermal insulation, new air barrier and siding.
- A surplus learning center building demolished, eliminating the need to heat the building and the site was reclaimed back as sports field.

### **Plans to Continue Reducing Greenhouse Gas Emissions 2020 – 2025**

Reducing energy consumption and greenhouse gas emissions will continue to be an important focus for the Rocky Mountain School District. Projects planned for the next five years show the potential for the School District to save energy costs, while significantly reducing greenhouse gas emissions and contributing to becoming carbon neutral. Some projects planned for the five years include:

- A new electric school bus has been ordered, delivery is expected in December of 2020.
- Summer 2020 upgrade interior lighting at one Elementary school with LED high efficiency light fixtures complete with dimming and occupancy controls.
- Summer/Fall 2020 replace building envelope and upgrade thermal exterior insulation at an Elementary School
- Summer 2020 installation of new heat pump and high efficiency furnace at an Alternate Education School.
- Summer 2020 installation of new high efficiency boilers at an Elementary School.
- Summer 2020 HVAC Controls Upgrades (DDC) at two Elementary Schools.
- Design at 2 schools for additional building envelope upgrades to improve thermal efficiency.
- Designs for boiler replacements at an Elementary School.
- DDC control upgrades and installations on various buildings.
- Gymnasium occupancy control of ventilation systems.



- Increased roofing insulation and wall insulation with cladding and roof upgrades at a number of buildings.
- Investigation into the viability of fuel switching from propane fired heating plants to electricity.
- Student and employee behavioural change education projects.

### **Retirement of Offsets**

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, School District No. 6 (Rocky Mountain) **(the Organization)** 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 (if applicable). The Organization hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy **(the Ministry)** 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.

**Confirmation number:** 00C4F161

**Submitted date:** 2020-06-25 12:44:49 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>Steve Jackson</i>
<b>Contact Email:</b>	<i>steve.jackson@sd6.bc.ca</i>
<b>Organization Name:</b>	<i>School District No. 6 (Rocky Mountain)</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>	Other - Please Specify: <i>Director of Operations</i>
<b>Please select your sector:</b>	School District (SD)

## 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>Yes</i>

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>Currently throughout our school district we are focusing on upgrading thermal performance of our building envelopes, upgrading our lighting systems to LED, improving DDC control of our HVAC systems and upgrading heating plants to high efficient condensing boilers.</i>
<b>Over the long term (6-10 years)</b>
<i>Continue with the our current strategy and continue to seek funding for our planned upgrade projects.</i>

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

*We have performed a variety of energy audits which have supported capital requests and provided direction on facility improvements. Currently we are focusing projects and actions identified in previous energy audits. Once that work is complete we will again perform further energy audits to guide our future efforts.*

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

*We have conducted many energy audits in the past and are not conducting annual audits.*

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

*Our goal is to continually renew buildings and building systems to enhance the learning environment by keeping our buildings safe, clean and in good condition. These retrofits include energy efficiency upgrades whenever reasonably possible.*

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

*Approximately 10% of our building portfolio is upgraded annually with LED light fixtures.*

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

*Approximately 10% of our building portfolio is upgraded annually with new boilers and or building envelopes.*

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.)

*Approximately 3-5% of our building portfolio annually receives roofing upgrades.*

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

*We maintain our HVAC systems continually, monitoring their performance and tracking consumption. Excess energy consumption is noted and addressed as appropriate.*

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

*None*

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.

*Most of our buildings do not have air conditioning.*

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

N/A

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

N/A

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

*No new buildings.*

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)

*We utilize video conferencing and collaborative software tools to reduce the need to travel for meetings. This year we have ordered an electric school bus and hope to continue to electrify our bus fleet over the coming years.*

Over the long term (6-10 years)

*Continue to electrify our bus fleet and consider electric service vehicles when replacing our white fleet 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

5

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

*We purchased one school bus. We did not have funding required to purchase an electric school bus in 2019. We purchased 4 service vans for our white fleet, we have not found a alternate fuel vehicle that will meet our requirements.*

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?

0

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.)

*We ordered an electric school bus compete with a level two charger. Delivery is expected in December 2020.*

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

2

#### 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

0

Gas/diesel

50

#### 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

0

Gas/diesel

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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)

*We have removed most printers and promote electronic document storage throughout the organization. Utilizing shared drives, shared asset management software, shared project management software and collaboration software.*

Over the long term (6-10 years)

*Continue to promote electronic document storage.*

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

No

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

No