



COAST MOUNTAINS BOARD OF EDUCATION SCHOOL DISTRICT 82



2019 CARBON NEUTRAL ACTION REPORT

Declaration Statement

This Carbon Neutral Action 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.

In 2019, Coast Mountains School District 82 (CMSD82) worked to upgrade all interior lights to LED 5-watt bulbs within its schools. The bulbs reduce energy consumption and provide a better student-learning environment by removing the high-frequency flicker from the florescent bulbs with a dimmable LED bulb. Staff performing the work received positive feedback from teaching staff and students.

The boiler plant at the R.E.M. Lee Theatre was replaced and completely rebuilt by school district staff. Using more efficient technology, the number of boilers was reduced from 6 down to 4. This replacement will help provide heat that is more consistent and reduce the energy consumption dramatically.



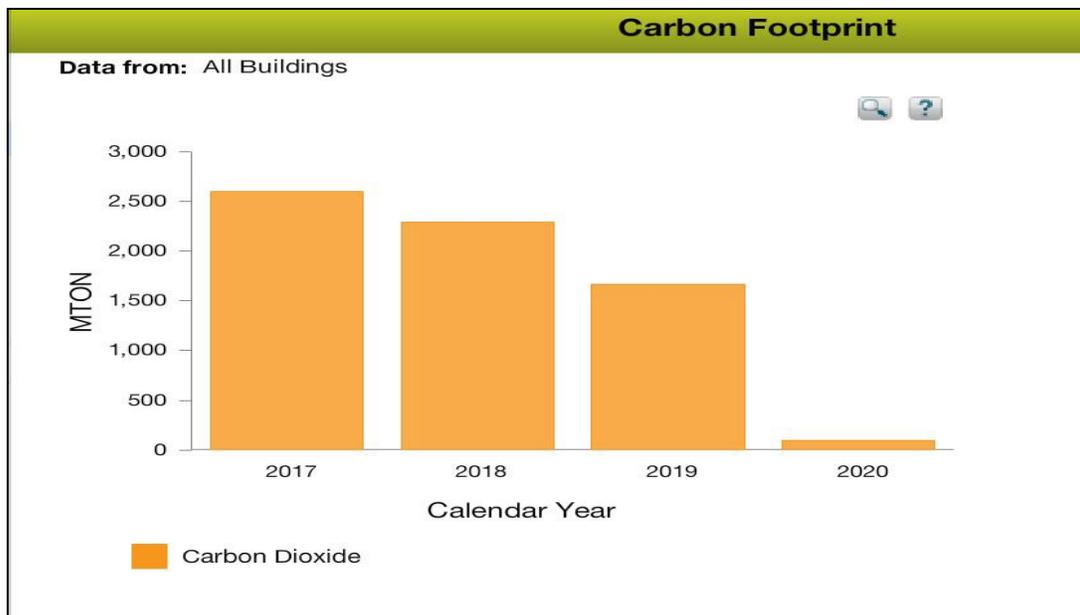
At Kitimat City High School (Cormorant School) the boiler plant and pump systems were replaced by in-house staff. The new boilers are much more efficient and dependable to provide heat throughout the building. New direct-digital controls and recommissioning of the program for the HVAC system also contributes to a lower carbon footprint.



CMSD82 has plans for the next heating upgrade stages at Kitimat City High School (Cormorant School) to replace the fin-tube radiant heaters throughout the building with new unit ventilators. Additionally, we are studying the Suwilaawks Community School building for a possible geo-thermal system that would meet the needs of multiple buildings. Test drilling and conductivity for the site has already been completed showing positive results.



CMSD82 has focused its efforts towards the replacements of systems that will reduce energy consumption and improve the comfort of the occupants. These changes have had a very positive effect on the overall carbon footprint generated from buildings.



Coast Mountains Board of Education School District 82, GHG Emissions and Offsets for 2019

As per the [Directive](#) issued March 31, 2020, each PSO will use their 2018 GHG Emissions as a placeholder for the purposes of their 2019 CNAR.

Total Emissions (tCO ₂ e)	2777.69
Total BioCO ₂	1.69
Total Offsets (tCO ₂ e)	2772
Offset Investment (\$25 per tCO ₂ e)	\$69,300

Retirement of Offsets:

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, Coast Mountains Board of Education School District 82 (**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.



June 24, 2020

Signature

Date

Janet Meyer

Superintendent of Schools

Name

Title



Confirmation number: 00C4839F

Submitted date: 2020-06-22 10:21:10 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 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">The final, signed version of the CNAR (or Small Emitters Form) must be submitted by email to: Carbon.Neutral@gov.bc.ca
June 30, 2020*	<ul style="list-style-type: none">Ministry of Environment and Climate Change Strategy must post a final CNAR for each organization on the BC Government's CNG website and each PSO is encouraged to post the report on their website.The CNAR Survey (optional for Small Emitters) must be completed and submitted online. *Deadline extended from May 29, 2020.<u>All offset invoice payments must be submitted to CAS.</u>
Sept 30, 2020*	<ul style="list-style-type: none">Clean Government Reporting Tool (CGRT) Data Entry must be completed for the 2019 reporting year.

	*Deadline extended from April 30, 2020.
Oct 15, 2020*	<ul style="list-style-type: none"> • Self-Certification checklist must be completed, signed and submitted by email to: Carbon.Neutral@gov.bc.ca. *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](#).

Contact Name:	<i>travis elwood</i>
Contact Email:	<i>travis.elwood@cmsd.bc.ca</i>
Organization Name:	<i>Coast Mountains Board Of Education #82</i>
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:	<i>Facilities/Operations Manager/Coordinator</i>
Please select your sector:	<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

Do you have a strategy to reduce emissions from stationary sources?	<i>Yes</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:

Over the medium-term term (1-5 years)	<i>automated controls for the heating system renewed and reviewed to ensure proper operation. As systems come to the end of their life cycle finding better systems to replace them with that uses alternate energy sources.</i>
Over the long term (6-10 years)	<i>Building envelope and heating system replacements for buildings that are going to be used for the long term</i>
Please describe your strategy's goals (if any) related to energy audits.	<i>Constantly monitor for unexplained increases in consumption and bills. - yearly each sites consumption is reviewed for anomalies</i>

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

25% by in house staff

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

Focused on systems that have the best business case for overall cost reductions and reduced energy use. Buildings that are part of the long range facilities plan for district use are given priority.

What % on average of your building portfolio is retrofitted each year in the following categories (if any) - click here for further information:

50

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

LED bulb changes in all classrooms, weather stripping replaced for exterior doors,

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

20% - exterior window replacement and exterior door replacement, boiler replacement

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.)

5 - roof replacement with added insulation

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

replacing systems when he life cycle is ending with more energy efficient models

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

10-20. DDC controls and system operations is done by in house staff along with the boiler service each summer.

Do you keep records of Refrigerant gases¹ 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.

na

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

0

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.

na

Other actions? Please describe briefly:

na

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?

No

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)

car pooling when possible. fleet replacement with more efficient models

Over the long term (6-10 years)

na

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

3

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

cost and fuel availabilitiy

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.)

na

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

1

Gas/diesel

3

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

43

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

10

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)

control the use of copy machines using staff codes that makes each person accountable for their usage.

Over the long term (6-10 years)

source suitable recycled products

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

No

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

No

Other 2019 actions, please specify

na