

CNAR OVERVIEW

Title: 2019 Carbon Neutral Action Report

Organization: School District #28 (Quesnel)

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.

By June 30, 2020 School District #28 (Quesnel) final *Carbon Neutral Action Report* will be posted to our website at www.sd28.bc.ca.

Overview:

In 2019, projects included:

- Completed an entire roof replacement at Correlieu Secondary and installed an additional R14 of insulation which increase the R-value at our largest site. This will save drastically on heating loads in the winter and cooling loads in the summer.
- At our District administration office we replaced an old low efficient non condensing boiler with 3 high efficiency condensing boilers. This project included DDC controls to help utilize all features of the new boilers and allow integration for AC, night setbacks and overall energy consumption.
- At the bus shop we replaced the low efficient heaters in the bus bays with two stage higher efficient radiant heaters. This project included DDC controls to help utilize all features of the new units and allow integration of controls, night setbacks, auto shut off if bay doors open and overall energy consumption.
- LED lighting projects at two of our schools – Red Bluff Elementary (our largest elementary school) and Correlieu Secondary (our largest secondary site). Lighting installed throughout the entire school including the exterior. Installed controls which turn off lighting when unoccupied.
- The District received 4 buses for the year which will release fewer emissions than the current buses.
- The District purchased two replacement vehicles replacing the older vehicles with newer and more efficient vehicles.

For 2020, anticipated projects include:

- Our largest unoccupied site will have the demolition completed on it. This site was built in the late 1950s and represented a large footprint with old components as well as hazardous materials. This school will be replaced by Sept 2022. The demolition is also a green demolition and much of the material is being recycled or reused.
- The District will be received 4 buses for the year which will release fewer emissions than the current buses.

Emissions and Offset Summary Table:

NOTE: this section separates BioCO₂ from total emissions.

Please see Appendix for instructions on populating the table.]

School District #28 (Quesnel) 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)	1,762
Total BioCO ₂	26.09
Total Offsets (tCO ₂ e)	1156
Offset Investment (\$25 per tCO ₂ e) <i>[Total Offsets x \$25/tCO₂e]</i>	\$28,900

- i. [Note, BioCO₂ is reported in Total Emissions but not Total Offsets. For School Districts, Total Offsets will not equal Total Emissions minus Total BioCO₂ because offset exempt emissions for school buses are included within Total Emissions.]*
- ii. Prior Year Adjustments (PYAs) are not applicable as emissions and offsets are based on 2018 alone.*
- iii. Total emissions and offset invoice amounts will be validated by CAS prior to distributing invoices.*
- iv. Due to a variety of influences including historical data corrections and conversion factors, there may be minor discrepancies between data existing in CGRT vs SMARTTool.]*

Retirement of Offsets:

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, School district #28 (Quesnel) **(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.

Executive sign-off:



J Woollends
Signature

June 5, 2020
Date

Jennifer Woollends
Name (please print)

Secretary-Treasurer
Title

Please scan and email the completed form to Carbon.Neutral@gov.bc.ca

Confirmation number: 00BB15B6

Submitted date: 2020-07-08 14:03:12 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>Jennifer Woollends</i>
Contact Email:
<i>Jenniferwoollends@sd28.bc.ca</i>
Organization Name:
<i>School District No. 28 (Quesnel)</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:
Administrative Assistant Facilities/Operations Manager/Coordinator Treasurer/Accounting
Please select your sector:
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

Do you have a strategy to reduce emissions from stationary sources?
Yes

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>Replace to LED lighting in minimum 1 school year, replace old gas appliances with high efficiency condensing boilers, furnaces and hot water heaters in one site a year. As well as upgraded electrical motors to more efficient ones with VFD drives. Also improve roof R value when a roof membrane is completed.</i>
<i>The District is constructing a school replacement for a new middle school. The middle school will be constructed with the new BC Building Code with energy modeling. With this project, 2 existing sites which have a large footprint will be demolished. These sites were built in 1954 and 1974 respectively and produce a lot of emissions as their systems are not efficient.</i>

Over the long term (6-10 years)

In 10 years have all schools with LED lights, no heating equipment under 90% efficient.

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

None

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

None

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

Apply every year for grants that are targets at reducing our Carbon footprint. Apply for new buildings to replace high energy consumption buildings.

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

12%

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

5%

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

5%

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.)

2%

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

The District is capped to what the Ministry of Education provides in terms of capital funding for major and deep retro-fits. Each year, the District puts in for significant capital projects, some of which reduce our carbon footprint. Each year, we make a request for CNCP projects such as lighting upgrades at all sites.

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

5%

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.

None

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.

We had no new buildings.

Other actions? Please describe briefly:

None

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)

Replace 1 old maintenance vehicle per year. Replace buses that are high in KM and age as per Ministry of Education guidelines for replacement.

Over the long term (6-10 years)

In 10 years we hope to not have a maintenance fleet vehicle that is older than 10 years. Continue to replace aging buses with those that have better technology which are more energy efficient.

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?

It is the only option for a service vehicle to haul what we need. The district does not yet have charging stations.

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.)

none

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

4

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

5

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)

Introduce a "paper cut" which is a device which tracks and monitors paper use. It does not prevent people from using it once a quota is reached but simply allows administrators to track the use of paper for purposes of education of the school community.

Over the long term (6-10 years)

The District, like many others, is investigating a bring your own device strategy for students. Students could follow along on their device reducing the need for paper print outs for student material. Students can save their work digitally rather than printing out their work for submission.

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

Yes

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

No

Other 2019 actions, please specify

none