



SCHOOL DISTRICT 46 - SUNSHINE COAST

Excellence in all we do!

2019 Carbon Neutral Action Report

Organization: Board of Education School District #46 (Sunshine Coast)

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.

Overview:

- Replaced 3 mid efficiency furnaces with high efficiency condensing units
- Reviewed all BMS's to ensure HVAC systems continue to run efficiently

Plans for 2020 and onward:

- In 2020, adding 100 Kw PV solar array at Gibsons Elementary
- In 2020, replacing 19 gas fired roof top units with heat pumps and PV solar array and upgrading BMS
- Install air source heat pumps as primary heat source for hydronic heating systems, thereby moving boilers to back up heat source
- Replacing fleet vehicles with higher efficiency and EV when possible
- Continue to review BMS operations for optimal efficiency
- Continue to explore ways to "electrify" HVAC systems where possible to reduce CO2 emissions

Additional information:

- School District No. 46 (Sunshine Coast) is very proud to have avoided 1723 tCO₂e emissions since 2011 and be a leader in the installation of PV solar arrays

Emissions and Offset Summary Table:

Board of Education School District #46 (Sunshine Coast)	
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)	702.96
Total BioCO ₂	2.96
Total Offsets (tCO ₂ e)	700
Offset Investment (\$25 per tCO ₂ e)	17,574
<i>[Total Offsets x \$25/tCO₂e]</i>	

- 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, Board of Education School District #46 (Sunshine Coast) (**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:

DocuSigned by:	
	6/4/2020 10:48 AM PDT
<small>1528F469D9BF4A6...</small>	
Signature	Date
Patrick Bocking	Superintendent of Schools
Name (please print)	Title

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

Confirmation number: 00C09157

Submitted date: 2020-05-25 15:37:36 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>Rob Collison</i>
Contact Email:
<i>rcollison@sd46.bc.ca</i>
Organization Name:
<i>School District No. 46 (Sunshine Coast)</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>

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>We plan to continue to invest in heat pumps as the primary source of heat for hydronic heating systems, instead of using boilers. To offset the electrical cost of heat pumps, continue to install PV solar. Lighting upgrades to LED technology as well.</i>
Over the long term (6-10 years)
<i>Same as medium term.</i>
Please describe your strategy's goals (if any) related to energy audits.
<i>We closely monitor our energy consumption, and try to reduce that consumption by 5% annually.</i>

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

100

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

Energy efficiency is an important consideration when we do any retrofitting.

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

2%

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

2%

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

2%

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%

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

We use fault detection software to ensure our building HVAC systems continue to run as designed.

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 at this time.

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

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)

When replacing vehicles, we look at the option to increase fuel efficiency and downsize when possible.

Over the long term (6-10 years)

Electrifying our fleet as technology increases.

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

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

1

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?

3

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

1

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?

2

Level 3?

0

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

As defined in the previous section

1

How many level 3 stations (if any) were installed specifically for your fleet vehicles?
As defined in the previous section

0

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)

1

Light duty trucks (LDTs)

Heavy duty vehicles (HDV)

Gas/diesel

26

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)

Buy paper with more recycled content. Moving away from printing paperwork and using Docu-sign.

Over the long term (6-10 years)

Same as above.

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

No

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

No