



School District No. 47 (Powell River)

Title: 2018 Carbon Neutral Action Report

Organization Name: School District 47 (Powell River)

Declaration Statement:

This Carbon Neutral Action Report for the period January 1st to December 31st, 2018 summarizes our emissions profile, the amount of offsets purchased to reach net zero emissions, the actions we have taken in 2018 to reduce our greenhouse gas emissions, and plans to continue reducing emissions in 2019 and beyond.

Overview:

In 2018, School District 47 continued to work towards its ongoing goal of reducing its carbon footprint. One of the largest contributions to the reduction of greenhouse gases is expected to come from the upgrade of the DDC Mechanical Controls and the replacement of the Lighting Controls at Brooks Secondary School which will bring to conclusion all of the planned mechanical upgrades that have been taking place at that school over the last few years. Also completed in 2018 was an increase to the existing solar capacity in place at the Haywire Bay Outdoor learning Centre. This increase in solar capacity is expected to reduce the facilities reliance on the backup propane generator.

A major electrical upgrade was also completed at Kelly Creek Community School. This upgrade included the replacement of most of the electrical infrastructure in the school. These improvements are expected to assist in the reduction of overall operating costs.

Also in 2018, we removed two older portable classroom spaces from the Brooks Secondary School site, this was made possible by better planning the school timetable, and in removing

the two structures we were able to remove the associated electrical and heating cost of those two buildings.

Planned for the summer of 2019 is a further upgrade to the existing solar capacity in place at the Haywire Bay Outdoor learning Centre. This combined with the one preformed in 2018 will continue to reduce the use of the backup propane generator.

On the school level, School District 47 continues to take pride in educating the next generation to protect our future by continuing to fund various Sustainable School Initiatives. Part of the mandate of the Board of Education is to increase awareness of, and, positive action in regard to reducing our carbon footprint in practical ways. Schools have further incentive to participate, as some of the financial savings have been returned to the schools to fund future projects, such as gardening programs and eco-friendly playground equipment. Other examples, on a smaller scale, are school recycling programs, which allow schools to use monies “earned” from returning beverage containers for classroom supplies. The Outdoor Learning Centre (OLC), completed in 2012, continues to be a contributing factor to the education of students, in both its operation and programs offered. The OLC consists of several cabins and a main lodge, run largely on solar power and maintains other environmentally friendly operating practices. Each year, the OLC offers numerous educational programs to District students, instructing them in practices such as composting, and use of renewable energy sources in a hands-on way.

Evidence of our efforts can be found in the continued maintenance of lower greenhouse gas emissions. Our **Total GHG Emissions for 2018 were 1,019** with **785 in offsets** to make us Carbon Neutral.

We believe in the benefits of our continued efforts and look forward to seeing a further reduction in offsets over the next few years. Financially, we aim to put some of the savings directly back into our schools, funding materials that continue to educate and provide awareness of how to reduce our carbon footprint. Environmentally, we aim to make our small actions have a big impact, both in the present and in the future, as our students take what they’ve learned into their adult lives, into our community and far beyond. Socially, we aim to provide awareness and collaboration that our students would take what they’ve learned and share it with others. We are proud of our District, and continue to be amazed at the significant efforts from both staff and students in making positive changes that will better our world for years to come.

Emissions and Offsets Summary Table:

School District 47 (Powell River) GHG Emissions and Offsets for 2018

GHG Emissions created in Calendar Year 2018

| | |
|-------------------------|-------|
| Total Emissions (TCO2E) | 1,019 |
| Total Offsets (TCO2E) | 785 |

Adjustments to GHG Emissions Reported in Prior Years

| | |
|-------------------------|---|
| Total Emissions (TCO2E) | 4 |
| Total Offsets (TCO2E) | 4 |

Grand Total Offsets for the 2018 Reporting Year

| | |
|---------------------|-----|
| Grand Total Offsets | 789 |
|---------------------|-----|

Sincerely,



Steve Hopkins
Secretary Treasurer



Jay Yule
Superintendent

May 31, 2019

Part 1: CNAR Survey

1. General Information

Name: Steve Hopkins

Contact Email: steve.hopkins@sd47.bc.ca

Organization Name: School District 47 (Powell River)

Sector: School District

Role - Please select your role(s) below.

If more than one individual completed the survey, multiple categories may be selected:

Energy Manager: No

Sustainability Coordinator: No

Administrative Assistant: No

Facilities/Operations Manager/Coordinator: No

CEO/President/Exec Director: No

Treasurer/Accounting: Yes

Superintendent: No

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

1. Actions taken by your organization in 2018 to support emissions reductions from buildings.

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

Yes

If yes above, what are the main goals?: Reduce where possible energy consumption

b) Whether you have a strategy or not (1.a), briefly describe your organization's plans to continue reducing emissions from stationary sources:

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

Over the last few years we have been renovating our buildings with a focus on new high efficiency boiler systems and new thermal windows, we have completed this work in all of our high priority spaces with a few smaller non school buildings left to complete.

II. Over the long term (6-10 years)

We did lighting upgrades in all facilities a number of years ago but expect to explore LED upgrades to continue to improve upon our consumption initiatives

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

We do not have an Energy Manager nor even a Facility manager, the Director of facility position was eliminated because of cost pressures within our system but we hope to add that back in the next year or two. We expect that a new qualified individual will have best practice strategies with respect to energy management, those strategies may include the use of energy audits.

I. What % on average of your building portfolio has an energy audit completed each year (if any)?: 0

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

Retrofit strategies were addressed in the questions above

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

Minor retrofits (e.g., low cost, easy to implement measures including caulking, lighting, adding roof insulation, etc.) (%): 0

Major retrofits (e.g., replacing windows and doors, equipment replacement such as boilers, etc.) (%): 15

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

I. What % on average of your building portfolio do you recommission each year?: 0

f) Do you keep records of Refrigerant gases category and refilling volumes?

No

g) How many newly constructed buildings received at least LEED Gold certification in 2018 : 0

I. How many newly constructed buildings did not receive LEED Gold certification?: 0

II. Please explain why LEED Gold certification was not obtained.

We have had only one newly constructed building over the last 20 plus years, that building was an elementary school that was brought into service about five years ago and is a LEED Gold building, the first of its kind in our community.

B. Mobile Sources (Vehicles, Off-road/portable Equipment): Fuel Combustion:**3. Actions taken by your organization in 2018 to support emissions reductions from mobile sources.****a) Do you have a strategy to reduce emissions from mobile sources?**

Yes

I. If yes, what are its goals?

To reduce emissions by becoming more efficient with our major bus fleet, most of our organizations goals and vehicle emissions are associated with school buses. We have undertaken strategies in recent years to improve our routing thus reducing the total kilometers driven.

b) Whether you have a strategy or not (3.a), briefly describe your organization's plans to continue reducing emissions from mobile sources:

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

We are exploring a pilot project where our next new bus would be electric

c) 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: 0

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

We haven't purchased any new vehicles in the last year

d) 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: 0

How many level 3 stations (if any) are specifically for your fleet vehicles: 0

e) How many EV charging station(s) did you install in 2018 in each category:

level 2: 0

level 3: 0

How many level 2 stations (if any) were installed specifically for your fleet vehicles: 0

How many level 3 stations (if any) were installed specifically for your fleet vehicles: 0

4. Please indicate the number of the vehicles in the following vehicle classes that are in your current fleet (including any purchased in 2018):

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)

a) 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

b) 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: 7

c) 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: 1

5. Please indicate the number of the vehicles you plan to replace in your fleet:

How much do you budget per LDV?: 0

How many LDVs do you plan to procure annually over the next 5 years?: 0

How much do you budget per LDT?: 0

How many LDTs do you plan to replace annually over the next 5 years?: 1

How much do you plan to spend per HDV?: 25000

How many HDVs do you plan to replace annually over the next 5 years?: 0

C. Office Paper: Indicate which actions your PSO took in 2018:

6. Actions taken by your organization in 2018 to support emissions reductions from paper supplies.

a) Do you have an Office Paper strategy?

Yes

I. If yes, what are its goals?

Ongoing use of paper with recycled content, use of high end multi function devices with scanning capacity to reduce printing

b) Whether you have a strategy or not (6.a), briefly describe your organization's plans to continue reducing emissions from paper use:

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

Ongoing use of the equipment referenced above

II. Over the long term (6-10 years)

Continue to explore new technologies

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

Yes