

2018 Carbon Neutral *Action Report*



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Executive Summary

On behalf of the Board of Education No. 61 (Greater Victoria) I am pleased to submit our Carbon Neutral Action Plan for 2018. Our 2018 report clearly demonstrates our District's ongoing commitment to the reduction of our greenhouse gas emissions. Our Board, as in previous years, continues to work diligently, to improve the learning environment for students and staff through its demonstrated support and leadership in the reduction of our carbon footprint.

The integration of environmentally sustainable considerations continues to influence all of our business decisions supported by our Board approved Environmental Change Policy.

Recognizing the importance of reducing our carbon footprint, a focus on energy savings and greenhouse gas emission reductions continue to be a priority in our ongoing commitment towards carbon neutrality. Projects that include the installation of high efficiency condensing boilers, heating control upgrades, and installation of energy efficient windows. We continue to demonstrate to students, staff and community the importance of environmental sustainability fully supported by our Board of Trustees' ongoing commitment towards carbon neutrality.

As part of our 2018 energy savings program we have replaced more of our older inefficient heating systems, installed new heating controls, and replaced windows to ensure energy efficiency.

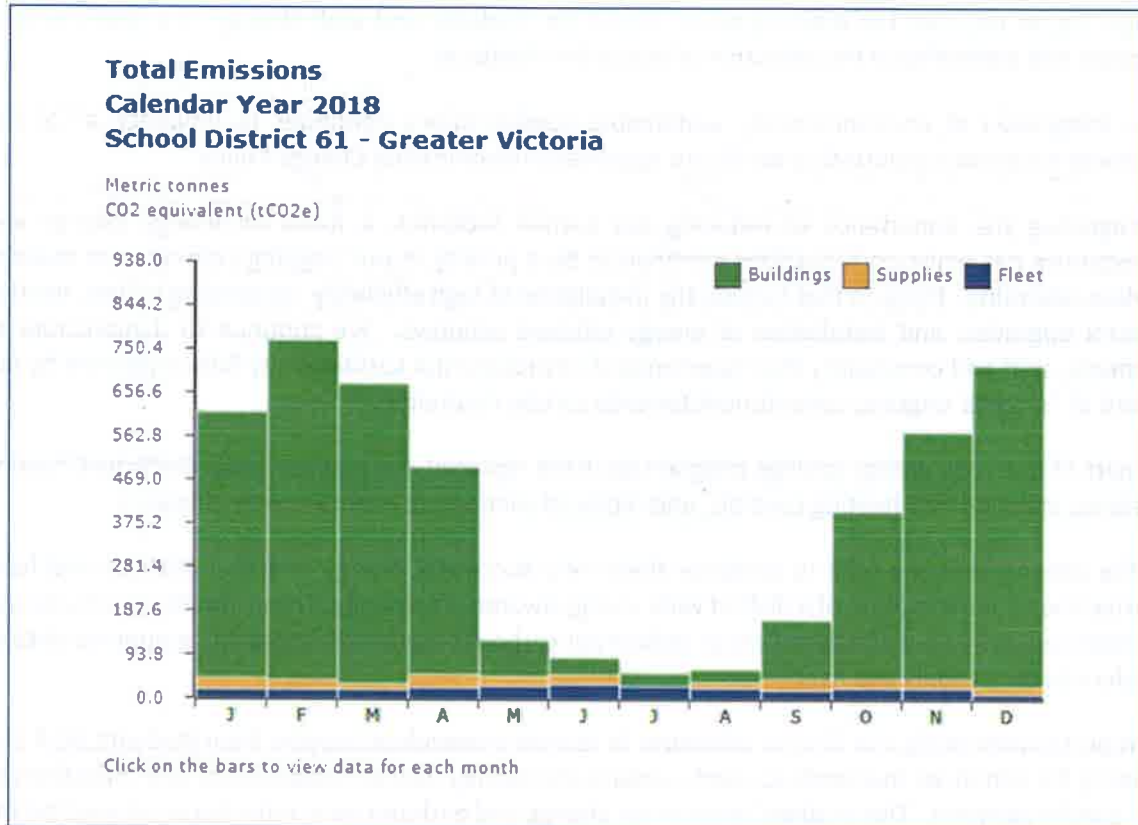
In the coming year, we plan to continue these very successful energy savings initiatives and have started the implementation of a district wide energy awareness strategy. These initiatives will allow us to move forward in our efforts to further reduce our carbon footprint while providing opportunities to modernize our schools and fleet.

As reported previously, our District continues to receive tremendous support from students, staff and parents for initiatives that embrace and model sustainability, social responsibility and reductions to our carbon footprint. The students' passion for change and enthusiasm in reducing our impact on the environment is an inspiration to us all. We are extremely proud of our achievements to date and look forward to continued success in this area.

For the 2018 reporting period the total offsets are 4,849 tons. With an adjustment of 19 tons, for a net offset of 4868. There was an adjustment to the GHG emissions for previous year totaling -258 tons. The total investment for these offsets is \$120,566.25. This is down from the previous year.

The Board of Education No. 61 (Greater Victoria) clearly recognizes its role as a leader in environmental stewardship and will continue to support initiatives that will reduce energy consumption and reduce our impact on the environment.

Greater Victoria School District 61 Greenhouse Gas Emissions by Source for the 2018 Calendar Year (tCO₂e*)



Total Emissions: 4,868

Offsets Applied to Become Carbon Neutral in 2018

Total offsets required: **4,868**. Total offset investment: **\$120,566.25**. Emissions which do not require offsets: **19** **

*Tonnes of carbon dioxide equivalent (tCO₂e) is a standard unit of measure in which all types of greenhouse gases are expressed based on their global warming potential relative to carbon dioxide.

** Under the Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act, all emissions from the sources listed above must be reported. As outlined in the regulation, some emissions do not require offsets.

Declaration statement:

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

By June 30, 2019 the Greater Victoria's School District's final *Carbon Neutral Action Report* will be posted to our website at <https://healthyschools.sd61.bc.ca>

Offsets Applied to Become Carbon Neutral in 2018

Greater Victoria School District #61 offsets applied to become Carbon Neutral in 2018

Total Emissions: 4,868 tonnes

Total Offsets: 19 tons

Total Adjustments: 256

Total emissions that require an offset investment: **\$120,566.25 for 2018**

***Under the Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act, all emissions from the sources listed above must be reported. As outlined in the regulation, some emissions do not require offsets.*

Changes to Greenhouse Gas Emissions and Offsets Reporting from Previous Years

Year	Totals	Emissions	Offsets Purchased
2010	6082	6096	\$152,050
2011	6950	6974	\$173,750
2012	6362 + 22	6387	\$159,050
2013	5545 - 172	5373	\$134,325
2014	5041-20	5021	\$125,525
2015	4823-19	4804	\$120,100
2016	4,449+228	4,677	\$116,925
2017	5290+16	5,306	\$132,250
2018	4849 + 19	4,868	\$120,566

Emissions Reduction Activities

Actions Taken to Reduce Greenhouse Gas Emissions in 2018

- Boiler replacement at Mt Douglas Secondary. Replacement of the 2 original 1960 boilers to 2 new energy-efficient condensing boilers.
- Boiler replacement at Willows Elementary. Replacement of 2 1967 boilers to 4 energy-efficient condensing boilers
- DDC Building Control system installations. The HVAC control systems at Colquitz, Glanford, Northridge, Oaklands, Torquay and View Royal schools were upgraded to new Reliable DDC systems.
- Window replacements. All the existing single-pane windows at Frank Hobbs were replaced with new energy-efficient windows. Phase 1 of the window replacement program at Mt Doug was completed. Approximately 15% of the existing single-pane windows were replaced with new energy-efficient windows.

Plans to Continue Reducing Greenhouse Gas Emissions

In 2018 we will work towards reducing our energy consumption and greenhouse gas emissions by focusing on upgrading and replacing the aging heating systems and controls, replacing aging windows, upgrading more of our aging fleet and implementing an energy awareness strategy across the school district.


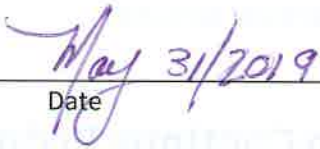
As a public sector organization our ability to continue to reduce greenhouse gas emissions is dependent on government funding. Our Board remains committed to support energy saving initiatives through Ministry of Education funding received for major capital improvements and the Ministry of Education's Annual Facilities Grant (AFG) and the newly introduced Carbon Neutral Capital Plan (CNCP).

- The Greater Victoria School District No. 61 has a link for Green Initiatives on the School District Website: <https://healthyschools.sd61.bc.ca>

Retirement of Offsets:

In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, the Greater Victoria School District is responsible for arranging for the retirement of the offsets obligation reported above for the 2018 calendar year, together with any adjustments reported for past calendar years. The Organization hereby agrees that, in exchange for the Ministry of Environment 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:

Signature		Date	
Name (please print), CEO, COO or Superintendent	Shirley Green	Title	Superintendent

Part 1: CNAR Survey

1. General Information

Name: Marni Vistisen-Harwood

Contact Email: mvistisen@sd61.bc.ca

Organization Name: Greater Victoria SD 61

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: Yes

CEO/President/Exec Director: No

Treasurer/Accounting: No

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?: The Greater Victoria has an Energy, Environment and Climate Change Policy that was approved in 2008. The guiding principals of the policy are:

To integrate environmentally sustainable considerations into all our business decisions.

To ensure staff, students, and parents are fully aware of our policy, actions and results.

To make suppliers and clients aware of our policy and encourage them to adopt sound sustainable environmental management practices.

To review, report and continually strive to improve our environmental sustainability performance.

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)

The Greater Victoria School District 61 will continue to complete energy efficient retrofits including but not inclusive of, boiler upgrades, window and door replacements, DDC upgrades, and building envelop upgrades. All upgrades will contribute to reducing the school district's emissions. The Greater Victoria School District 61 will also continue to work with staff and students on a reduction strategy and communication around this strategy.

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

The Greater Victoria School District 61 will continue to complete energy efficient retrofits including but not inclusive of, boiler upgrades, window and door replacements, DDC upgrades, and building envelop upgrades. All upgrades will contribute to reducing the school district's emissions.

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

The Greater Victoria School District 61 utilizes our energy data to determine the location of the best retrofit and what buildings are our largest GHG users and tries to target these buildings first.

I. What % on average of your building portfolio has an energy audit completed each year (if any)? : 5

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

The Greater Victoria School District 61, like all SD has limited resources.

The Greater Victoria School District 61 tries to replace a number of boilers each year - choosing our oldest boilers or any problematic ones first.

The Greater Victoria School District 61 has many older buildings that require window replacements and each year we strive to complete window replacements at necessary sites.

We have over 2 million sq ft of roof, thus we target roof replacements each year.

On top of all those goals we are currently in the beginning stages of lighting upgrades throughout the entire district.

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.) (%): 25

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.) (%): 10

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

This year the Greater Victoria School District 61 will be looking at lighting retrofits at all facilities within the Greater Victoria SD.

We have dedicated employees to ensure the lighting retrofits are a top priority.

As well we are slowly retrofitting our original boilers with energy efficient condensing units.

I. What % on average of your building portfolio do you recommission each year?: 10

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

No

I. If yes, have you included the associated emissions in your reporting?

No

II. What, if any, mitigation approaches have been considered? Please describe.

n/a

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.

There was no newly constructed buildings in 2018

h) Other actions? Please describe briefly.

n/a

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?

We have implemented a strategy to track gas consumption and have implemented a service schedule for all fleet vehicles.

The employees are now required to complete a vehicle trip inspection that will assist with ensuring the vehicles are sufficiently serviced.

The Greater Victoria School District 61 does have a non-idling policy on all fleet vehicles.

Lastly we are in the process of decreasing our fleet travel and ensuring there are no unnecessary trips thus saving in time, gas and vehicle wear and tear and GHG emissions.

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)

Over the medium term the following will be implemented or continued,

1. Track gas consumption and strategy to decrease
2. Vehicle trip inspections - ensure vehicles are sufficiently serviced.
3. Non-idling policy
4. Decrease fleet travel to reduce GHG emissions.

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

Over the medium term the following will be implemented or continued,

1. Track gas consumption and strategy to decrease
2. Vehicle trip inspections - ensure vehicles are in sufficiently serviced.
3. Non-idling policy
4. Decrease fleet travel to decrease GHG emissions.
5. Continue to replace our aging fleet

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?

There were no new purchases this past year.

All vehicles purchased in previous years were gas vehicles and were purchased based on need (no electric vehicles in that category).

The Greater Victoria SD will continue to look at purchasing electric or hybrid vehicles as long as economically feasible.

d) How many existing EV charging stations does your organization have in each category:

level 2: 7

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

f) Other actions, please describe briefly (e.g. charging station feasibility studies, electrical panel upgrades, etc.)

n/a

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: 57

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: 13

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?: 0

How much do you plan to spend per HDV?: 0

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?

The Greater Victoria School District 61 has an environment policy that touches on paper supplies.

The Environment policy states the following;

1. Purchasing

a. Where feasible, products shall be purchased that are manufactured from recycled materials.

b. Where products are similar in function, the one that is the least harmful to the environment shall be purchased.

2. Waste Management

a. The district shall substantially reduce paper waste.

b. The district shall foster environmental practices based on the concepts: reduce, reuse, recycle.

c. Where feasible, waste products shall be recycled.

d. The district shall encourage the participation of staff, students and parents in the recycling program.

3. Facilities Management

a. The district shall practice energy conservation in the operation of all facilities and equipment.

b. The district shall use, where feasible, environmentally friendly products for all facilities, equipment and grounds.

The Greater Victoria school district has implemented a number of paperless work order systems to ensure we are heading in the paperless direction and decreasing our paper consumption

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)

The Greater Victoria school district will continue to encourage schools in our district to purchase recycled paper.
The Greater Victoria school district will continue to implemented and use paperless work order systems.

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

The Greater Victoria school district will continue to encourage schools in our district to purchase recycled paper.
The Greater Victoria school district will continue to implemented and use paperless work order systems.

c) Have an awareness campaign focused on reducing office paper use

No

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

Yes

e) Other actions, please specify.

A memo has been sent out in the past to the schools indicating the benefits of purchasing Hemp products.