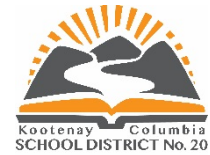


Declaration Statement

This is the 2018 Carbon Neutral Action Report for School District No. 20 Kootenay Columbia. This Carbon Neutral Action Report summarizes our emissions profile, the amount of offsets purchased to reach net zero emissions and the actions we have taken to reduce our greenhouse gas emissions. As well, it contains a list of potential future options that may help us reduce Greenhouse gas emissions in the future.

OVERVIEW



Emission Reduction Activities

The following is a list of actions taken toward carbon neutrality in 2018:

- Continued to install occupancy sensors in several rooms throughout the District.
- Continued to replace current bulbs with fluorescent and LED bulbs as they burn out.
- Continued to utilize power management software which shuts down computers outside of regular business hours.
- Continued to use server virtualization.
- Continued to use auto-sleep settings on computer monitors and CPUs.
- Continued to remove stand-alone printers, copiers, and/or fax machines and install multi-function devices.
- Continued to utilize auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices.
- Continued to replace computers with ENERGY STAR models during regular computer upgrades.
- Continued to replace appliances with ENERGY STAR models whenever new appliances are purchased.
- Continued to replace vehicles in fleet with more efficient vehicles.
- Continued the implementation of computer lab replacement with laptops rather than desktops.
- Window replacement in Webster Elementary
- Implementation of Paper Cut program (monitors paper usage)



Future Plans for the continual reduction of Greenhouse Gas Emissions

In 2018, we received capital funding to upgrade the windows in the classroom wing at JL Webster Elementary from single pane windows to Energy Star certified double pane.

The replacement of these windows is our greatest success story for 2018. Also, because we upgraded three mechanical systems in the summer of 2017, 2018 was our first full winter to reap the benefits and energy savings in those buildings. Our numbers show a reduction in our total emissions from buildings so this is very promising.

We are looking forward to the energy savings of a complete winter with the window replacement at Webster Elementary and that will surely be the success story of 2019.

We have a documented increase in paper usage for 2018 and this is something the District is looking at addressing with the monitoring and education of usage through a program called Paper Cut. (Our paper amount in this report only shows how much has been ordered rather than how much is being used so it's not the most accurate account. Using Papercut, we will be able to track year over year usage trends.

Although we have an increase in mobile combustion, this is likely directly related to the increase in charter bus trips. Unless the District decides to formally change this, we will continue to have these increases.

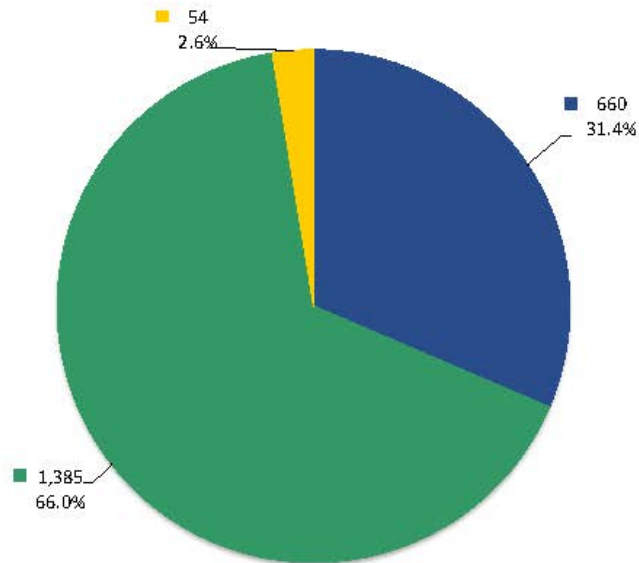
Other potential projects that continue to be considered within the buildings in our District include further window replacements, re-commissioning and rebalancing of newer mechanical systems, upgrades to DDC controls and the addition of CO2 sensors as well as lighting upgrades. We have roof top units that

will need to be replaced in the near future as well and that will continue to help the District reduce its energy usage for the buildings.

We will continue with all the smaller upgrades and changes that we have been working on in an effort to move our District closer to carbon neutrality in these challenging financial times.

We haven't received money from the CNCP grant program since 2014 so we are looking forward to hopefully receiving some grant money in the near future to help with energy savings projects.

**School District 20 - Kootenay-Columbia
Greenhouse Gas Emissions by Source
for the 2018 Calendar Year (tCO₂e*)**



Total Emissions: 2,099

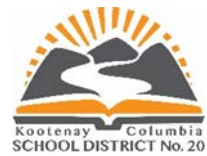
- Mobile Fuel Combustion (Fleet and other mobile equipment)
- Stationary Fuel Combustion (Building Heating and Generators) and Electricity
- Supplies (Paper)

Offsets Applied to Become Carbon Neutral in 2018 (Generated May 02, 2019 9:53 AM)

Total offsets required: **1,556**. Total offset investment: **\$38,900**. Emissions which do not require offsets: **543** **

*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.




Emissions and Offsets Summary Table

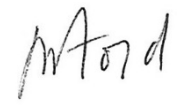
School District No. 20 (Kootenay Columbia) Greenhouse Gas Emissions and Offsets for 2018 (TCO2E)	
Greenhouse Gas Emissions in calendar year 2018:	
Total Emissions	2099
Total BioCO2	23.26
Total Offsets	1556
Adjustments to GHG Emissions Reported in Previous Years:	
Total Emissions	245
Total Offsets	135
Grand Total Offsets for the 2018 Reporting Year:	
Total Offsets	1691
Total Offset Investment	\$42,275

Retirement of Offsets:

In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, School District No. 20 (Kootenay-Columbia) 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 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.



2018 CNAR prepared by Director of Operations, Heather Simm



2018 CNAR approved by Superintendent, Bill Ford

Part 1: CNAR Survey

1. General Information

Name: Heather Simm

Contact Email: hsimm@sd20.bc.ca

Organization Name: School District No. 20 (Kootenay Columbia)

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?

No

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)

- Continued to install occupancy sensors in several rooms throughout the District.
- Continued to replace current bulbs with fluorescent and LED bulbs as they burn out.
- Continued to utilize power management software which shuts down computers outside of regular business hours.
- Continued to use server virtualization.
- Continued to use auto-sleep settings on computer monitors and CPUs.
- Continued to remove stand-alone printers, copiers, and/or fax machines and install multi-function devices.
- Continued to utilize auto-sleep settings on printers, copiers, fax machines, and/or multi-function devices.
- Continued to replace computers with ENERGY STAR models during regular computer upgrades.
- Continued to replace appliances with ENERGY STAR models whenever new appliances are purchased.
- Continued the implementation of computer lab replacement with laptops rather than desktops.

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

N/A

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

N/A

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.

No strategy.

Any of the retrofits we do are based on a maintenance need/capital replacement need rather than trying to meet a strategy for energy reduction.

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.) (%): 10

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.) (%): 5

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

No strategy

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

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.

No new buildings

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?

No

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)

- Continued to replace vehicles in fleet with more efficient vehicles.

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

Unknown. No strategy

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: 4

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

Large cargo vans and heavy duty dump trucks not available. Smaller cargo vans not available with other option through provincial options.

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

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: 2

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: 13

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: 4

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

How much do you budget per LDV?: 20000

How many LDVs do you plan to procure annually over the next 5 years?: 2

How much do you budget per LDT?: 30000

How many LDTs do you plan to replace annually over the next 5 years?: 3

How much do you plan to spend per HDV?: 50000

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?

No

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)

Introducing Papercut to help raise awareness of amount of paper usage

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

Use papercut to help with reduction of paper usage

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

Yes

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

No