School District 5

Southeast Kootenay

Carbon Neutral Action for 2016

Emissions Reduction Report

Declaration statement

This is the 2016 Carbon Neutral Action Report (CNAR) for School District No. 5. This report contains our 2016 emissions profile, offsets purchased, the actions we have taken in 2016 to reduce our GHG emissions and our plans to continue reducing emissions in 2016 and beyond.

By June 30, 2017, School District No. 5 final CNAR will be posted to our website at www.sd5.bc.ca
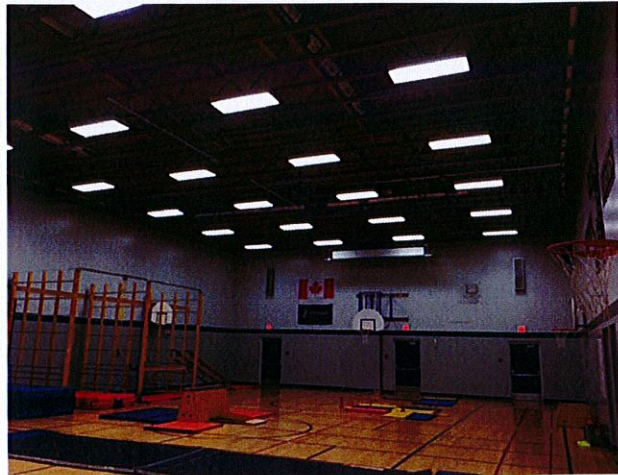
Overview

School District No. 5 has continued to work towards reducing emissions this year in technology, electrical and HVAC. As you will read, we have been working towards our goal of carbon neutrality. All of our departments continue to be in the mind set of reducing unnecessary emissions where they can; this is from removing inefficient printers to purchasing energy saving appliances. I believe our goal of working with staff and students to become more energy wise has paid off and will continue to pay off in the years to come. School District No.5 was one of 5 districts working with the Government and BC Hydro to hire an Energy Manger who will be helping us to reduce our Carbon Footprint. I have included a number of our successes below.
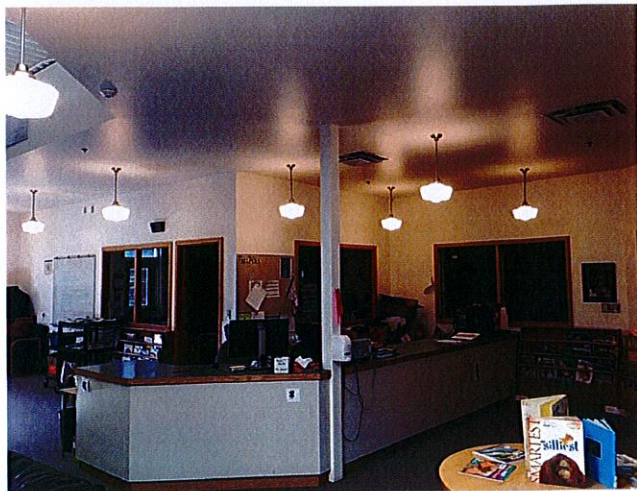
Technology: Our Tech Plan is now being revised and we have started to move forward with it this year. With this new plan we will be reducing the amount of hard drive space and servers in our data center. In the future we will be moving most of our data to the cloud to further help in reducing our carbon footprint. The first process of this plan has begun with all staff and students now moving to Office 365. We are also in the process of planning to move SRB (Our District accounting/HR system) to the Cloud and should have this completed by late this year.

Electrical: Our district has been replacing older light fixtures with LED retro fits where possible. This reduces the use of KWH by an average of 40 %.

Highlands Elementary Schools have had their gym retro fitted this past year with LED tubes allowing us to remove a ¼ of the bulbs while still maintaining the light levels.

Kootenay Orchards also had their classrooms, gym and library retro fitted with LED kits.

The Capital Plan for 2017/18 approved LED lighting upgrade for Elkford Secondary School.

HVAC: The Amy Woodland, Steeples, Pinewood Elementary and Mount Baker Secondary School projects that were scheduled last summer are all complete.

Mount Baker is one of our success stories: The project consisted of removing 8 older boilers and replaced them with 2 high efficient Viessman Boilers.

Our 5-year plan will include more Energy efficient boilers for School with older system and applications for these will be apply for.

In Conclusion: School District No.5 is working to reduce our use of energy and save resources where possible. We are hoping in the future to become more energy efficient and reduce our consumption even more.

Emissions and Offset Summary Table

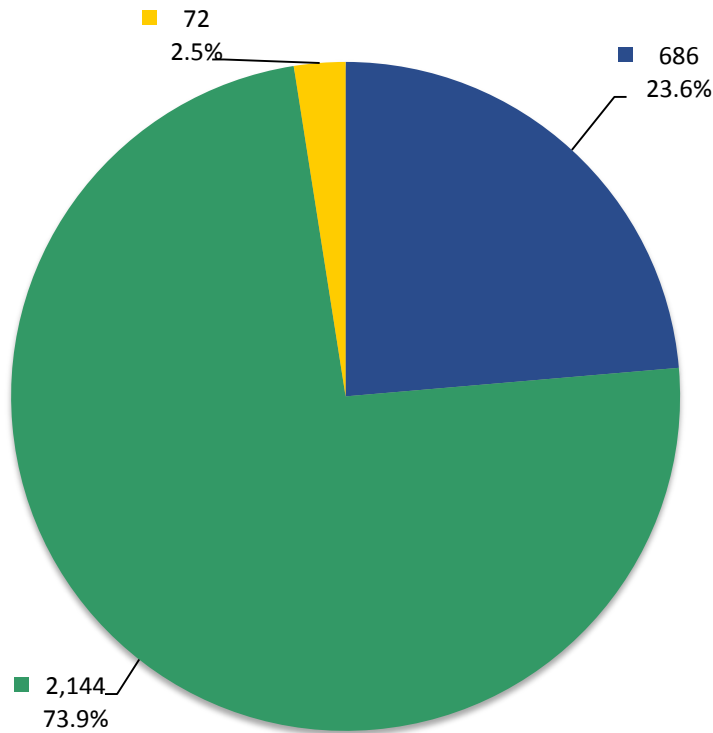| *School District No.5* GHG Emissions and Offset for 2016 (tCO₂e)	
GHG Emissions created in Calendar Year 2016:	
Total Emissions (tCO₂e)	*2901*
Total Offsets (tCO₂e)	*2318*
Adjustments to GHG Emissions Reported in Prior Years:	
Total Emissions (tCO₂e)	*N/A*
Total Offsets (tCO₂e)	*N/A*
Grand Total Offsets for the 2016 Reporting Year:	
Grand Total Offsets (tCO₂e)	2318

Retirement of Offsets

In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, School District No. 5 (Southeast Kootenay) is responsible for arranging for the retirement of the offsets obligation reported above for the 2016 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 _May 29, 2017_____

Name (please print) _Robert G. Norum_____   Title _Secretary Treasurer_____

School District 05 - Southeast Kootenay
Greenhouse Gas Emissions by Source
for the 2016 Calendar Year (tCO$_2$e*)

72
2.5%

686
23.6%

2,144
73.9%

Total Emissions: 2,901

■ 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 2016 (Generated May 15, 2017 4:17 PM)
Total offsets required: **2,318**. Total offset investment: $**57,950**. Emissions which do not require offsets: **583** **

*Tonnes of carbon dioxide equivalent (tCO$_2$e) 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.

2016 Carbon Neutral Action Report Survey

Part One (external)

Organization Name:

School District No.5 (Southeast Kootenay)

Please select your sector:

- School District

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

During 2016, did your organization take any of the following actions to support emissions reductions from buildings?

Select all that apply

- Performed energy retrofits of the organization's buildings.: 5

Briefly describe your organization's plans to continue reducing emissions from its stationary sources in future years.

We are upgrading lighting in buildings with LED technology.
Where possible we are upgrading our HVAC equipment with energy efficient units.
We along with 4 other districts have hired a energy manager.

During 2016, did your organization participate in utility-sponsored energy demand management program(s) (e.g. BC Hydro's Energy Management (Manager))?

No

If yes, please describe briefly:

(No response)

2) Mobile Sources (Vehicles, Off-road/Portable Equipment): Fuel Combustion.

During 2016, did your organization take any of the following actions to support emission reductions from its mobile sources?

Select all that apply

- Took steps to drive less than previous years.
- Other actions? Please describe briefly.: Did more remote work on computers so that tech staff also traveled less.

Briefly describe your organization's plans to continue reducing emissions from its mobile sources in future years.

Purchase vehicles that are energy efficient and still fulfill our needs.
Continue to service our vehicles on a regular schedule to have them running properly and efficiently.

3) Supplies (Paper):

During 2016, did your organization take any of the following actions to support emissions reductions from paper supplies?

Select all that apply

- Awareness campaign focused on reducing office paper use.

Briefly describe your organization's plans to continue reducing emissions associated with its office paper use in future years.

We are reducing our printers and are trying to print less. We are also encouraging to have the printing doubled sided. We encourage staff to use digital documents as opposed to print or hard copy.

4) Other Sustainability Actions:

Business Travel:

During 2016, did your organization take any of the following actions to support emissions reductions from business travel?

Select all that apply

- Encouraged alternative travel for business (e.g. bicycles, public transit, walking)

Education Awareness:

During 2016, did your organization have any of the following programs or initiatives to support sustainability education and awareness?

Select all that apply

- Green, Sustainability or Climate Action Team
- Other, please describe briefly: we had a water study done for irragiting our school grounds in order to minimize our use of water.

Other Sustainability Actions:

During 2016, did your organization have any of the following programs or initiatives to support sustainability?

Select all that apply

- A water conservation strategy which may include a plan or policy for replacing water fixtures with efficient models

Page 5

Part Two (internal)

This section will not be included in your public report

Out of all the projects your organization has undertaken in 2016, please select the one action that resulted in, or is expected to result in, the greatest emissions reductions (this may be considered your "success story"):

Replaced 8 older boilers with 2 energy condensing boilers.

What are the barriers your organization faces when trying to implement emissions reduction initiatives? It is expected that funding is a major issue. If there are other barriers as well please briefly describe those below:

(No response)

What projects ("opportunities") does your organization see as being most effective in leading to substantive:

a) Reductions of emissions, increased energy efficiency; and

b) Adaptation/strengthened resilience to climate change?

Please describe briefly

a) HVAC renewal, Lighting upgrades to LED and heat loss prevention; Insulation.
B) Less use of vehicles to and from work. Use skype for business and down off electronics when not in use. Reduce idling of vehicles, Use DDC in all of our buildings for better control.

Does your organization have an emission reduction target?

No

If Yes, please describe briefly:

(No response)

Does your organization have a strategic emission reduction plan to reduce the organization's emissions?

(e.g. a long term plan)

No

If Yes, please describe briefly:

(No response)

Does your organization use an energy management system?

No

If Yes, please describe briefly:

No plan however we look for opportunities to reduce emissions where and whenever possible.

Does your organization use building energy management tools?

Select all that apply

- FAME
- Utility Manager

Does your organization use an environmental management system to track and manage the organization's environmental impacts (e.g., beyond energy to include water, waste, contaminated sites, etc.)?

Yes

If Yes, please describe briefly:

Fame

Page 6

Part Two continued

Does your organization have a strategic adaptation plan to improve the resilience of the organization's infrastructure and services to the effects of climate change (e.g. Conduct a climate risk assessment for your facilities and services; prioritize risks to prepare for/respond to)?

Yes

If Yes, please describe briefly:

We have conducted energy reports and use these to prioritize projects in order of greater reductions.

Has your organization consulted any of the following resources on climate change adaptation?

Select all that apply

- I'm not familiar with any of these

Has your organization considered or assessed whether increased frequency of extreme weather events and/or long term changes in climate will affect your organization's infrastructure, its employees and/or its clients?

Yes

Has your organization taken actions/projects to respond to any impacts cause by the above?

Yes

If Yes, please describe briefly:

We assess the weather/road conditions during extreme weather conditions and decide weather schools will be opened or not.

Has your organization incorporated anticipated changes in climate into your organization's planning and decision making?

No

If Yes, please describe briefly:

(No response)

Other Adaptation Planning related activities/programs (please describe briefly):

(No response)

Part Two continued

Stationary Sources Data:

What is the total amount of floorspace in your organization (including occupied and unoccupied space)?

(Please report in square meters)

783,433 sq feet

Full Time Employee Equivalent Data (Except Health Authorities and affiliates):
How many full time equivalent employees (FTEs) do you have within your organization?

600

Mobile Sources Data:

Please indicate the number of the vehicles in the following vehicle classes that are in your fleet:

Mobile Sources Data: Please indicate the number of the vehicles in the following vehicle classes that are in your fleet: | Light duty vehicles (e.g. cars)	4
Mobile Sources Data: Please indicate the number of the vehicles in the following vehicle classes that are in your fleet: | Light duty trucks (e.g. trucks, SUVs, MiniVans)	24
Mobile Sources Data: Please indicate the number of the vehicles in the following vehicle classes that are in your fleet: | Heavy duty vehicles (e.g. transport trucks)	3
Mobile Sources Data: Please indicate the number of the vehicles in the following vehicle classes that are in your fleet: | Off road vehicles (e.g. forklifts, front end loaders, snowmobiles)	10
Mobile Sources Data: Please indicate the number of the vehicles in the following vehicle classes that are in your fleet: | School/transit buses: School Districts, Post-Secondary and BC Transit ONLY	35

Thank you for completing the Carbon Neutral Action Report Survey. If this form is now complete please click on the 'submit' button below to send it to the Climate Action Secretariat, otherwise you can click 'Save' to continue at a later time.