# School District No. 6 (Rocky Mountain) 2017 Carbon Neutral Action Report

#### **Executive Summary**

Rocky Mountain School District continues to focus on greenhouse gas emission reduction. The main source of the energy and greenhouse gas savings throughout the School District is the result of implementing building energy retrofit projects, and changes to the operation of buildings and vehicles. The School District's focus on environmental stewardship has been a key driver for success in reducing greenhouse gas emissions. This focus has led to the prioritization of staffing resources, and capital projects, as well as education programs focussing on energy reduction and environmental stewardship.

On-going benchmarking of energy performance of buildings, vehicles, and other energy consumption continues. Our Operations Department continually monitors energy consumption and focuses on energy reduction initiatives which ultimately reduce carbon emissions.

**Paul Carriere** 

Superintendent of Schools

This Carbon Neutral Action Report for the period January 1st, 2017 to December 31st, 2017 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2017 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2018 and beyond.

### **2017 Greenhouse Gas Emissions**

A total of 1576 tonnes of greenhouse gas emissions were emitted by the School District during the 2017 calendar year, from all sources covered by the Greenhouse Gas Reduction Targets Act.

SD6 GHG Emissions and Offsets for 2016 (TCO2E)	
GHG Emissions created in calendar year 2017 (from SMARTTool Homepage)	
Total Emissions	2124
Total Emissions for Offsets	1576
Adjustments to GHG Emissions Reported in Previous Years (from SMARTTool Homepage)	
Total Emissions	0
Total Emissions for Offsets	0
Credit owing from PCT at end of 2015 reporting year:	
Credit Owing	0
Total Emissions for Offsets for the 2017 Reporting Year (from Offset Invoice):	1576

#### **Emissions Reduction Activities**

#### Actions Taken by the Rocky Mountain School District to Reduce Greenhouse Gas Emissions in 2017

Projects to reduce energy consumption and greenhouse gas emissions implemented in 2017 included:

- Golden Secondary, David Thompson Secondary and Selkirk Secondary schools all exterior lights were upgraded to LED high efficient lighting.
- Two new energy reduction projects were investigated and included in the Board of Education's five year capital plan, (building envelope upgrade and boiler upgrade project), and the plan was submitted June of 2017.

#### Plans to Continue Reducing Greenhouse Gas Emissions 2018 – 2023

Reducing energy consumption and greenhouse gas emissions will continue to be an important focus for the Rocky Mountain School District. Projects planned for the next three to five years show the potential for the School District to save energy costs, while significantly reducing greenhouse gas emissions and contributing to becoming carbon neutral. Some projects planned for the next three to five years include:

- Summer 2018 upgrade interior lighting to LED fixtures complete with dimmers and occupancy controls at two Elementary Schools
- Summer/Fall 2018 replace building envelope and upgrade thermal exterior insulation at a Elementary School
- Summer 2018 boiler upgrades at one (1) high school.
- Designs for boiler replacements at (2) Elementary Schools
- DDC control upgrades and installations on various buildings.
- Gymnasium occupancy control of ventilation systems.
- Increased roofing insulation and wall insulation with cladding and roof upgrades at a number of buildings.
- Investigation into the viability of fuel switching from propane fired heating plants to electricity.
- Student and employee behavioural change education projects.

### Part 1: CNAR Survey

### 1. General Information

Name: Steve Jackson

Contact Email: steve.jackson@sd6.bc.ca

Organization Name: School District No. 6 (Rocky Mountain)

Sector: School District

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

During 2017, did your organization take any of the following actions to support emissions reductions from buildings? (please select all that apply)

Performed energy retrofits of the organization's building(s)

If you selected "Performed energy retrofits of the organization's building(s)":

How many buildings were retrofitted?: 4

If you selected "Built, or are building new LEED Gold or other "Green" buildings":

How many new "Green" buildings?:

Did your Organization perform any retrofits during 2017? Please describe briefly:

We upgraded all exterior lighting at 4 schools to LED.

2a. Stationary Sources (eg. Buildings, Power Generators): Fuel Combustion, Electricity use, Fugitive Emissions.

# 2a. Stationary Sources (eg. Buildings, Power Generators): Fuel Combustion, Electricity use, Fugitive Emissions.

Please briefly describe your organization's plans to continue reducing emmissions from its stationary sources:

#### a) Over the next 1-5 years

- 1. We are upgrading a high school heating system this summer. We are removing old low efficient atmospheric boilers and replacing them with high efficient condensing boilers.
- 2. Two elementary schools will have all interior lighting converted to LED.
- 3. One elementary school is undergoing a building envelope upgrade. New thermally efficient windows, new exterior insulation c/w new exterior finish.
- 4. A building will have its old propane furnace replaced with a heat pump.

#### b) Over the following 6-10 years

We will continue to upgrade schools with LED lighting as well continue to upgrade old inefficient boilers with new high efficient condensing boilers. Further building envelope projects are also planned.

# 3. Mobile Sources (Vehicles, Off-road/portable Equipment): Fuel Combustion:

During 2017, did your organization take any of the following actions to support emission reductions from its mobile sources? (please select all that apply)

None of the above

If you selected "Replaced existing vehicles with more fuel efficient vehicles (gas/diesel)":

How many vehicles?:

If you selected "Replaced existing vehicles with hybrid or electric vehicles":

How many vehicles?:

## 3a. Mobile Sources (Vehicles, Off-road/portable Equipment): Fuel Combustion:

Please briefly describe your organization's plans to continue reducing emissions from its mobile sources:

#### a) Over the next 1-5 years

We continue to support video conference and telephone conference meetings to reduce the need for travel. We plan to move to Skype for business to improve quality of video conferences.

#### b) Over the following 6-10 years

Continue to enhance the quality of distance meetings via video conference which will greatly reduce the need for travel. Interactive SMART boards are being considered for meetings over distance to reduce the need to travel to sites.

## 4. Supplies (Paper): Indicate which actions your PSO took in 2017:

During 2017, did your organization take any of the following actions to support emissions reductions from paper supplies? (please select all the apply)

4) Supplies (Paper): Indicate which actions your PSO took in 2017: - Other? Please describe briefly:: Continue to support electronic record keeping and 2 sided printing when necessary.

If you selected "Had a policy requiring the purchase of recycled content paper":

State the required recycled content here (30%, 50%, 100%):

If you selected "Had a policy requiring the purchase of alternate source paper (bamboo, hemp, wheat, etc)", which type of alternate source paper did you use?

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

We are implementing SharePoint and other electronic data bases to support electronic storage of records.

### 5. Other Sustainability Actions

#### a) Business Travel

During 2017, did your organization take any of the following actions to support emissions reductions from business travel? (please select all that apply)

5) Other Sustainability Actions - Other? Please specify:: We continue to support video conference and telephone conference meetings to reduce the need for travel.

#### b) Education/Awareness

During 2017, did your organization have any of the following programs or initiatives to support sustainability education and awareness? (please select all that apply)

A Green, Sustainability or Climate Action Team; Support for professional development on sustainability (e.g. workshops, conferences, training); Supported or provided education to staff about the science of climate change, conservation of water, energy and/or raw materials

#### c) Other Sustainability Actions

During 2017, did your organization have any of the following programs or initiatives to support sustainability? (please select all that apply)

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

5b) Other Sustainability Actions - Other? Please specify:: All facilities have low flow toilets to manage water consumption.