

CNAR OVERVIEW

Title: "2016 Carbon Neutral Action Report"

Organization name: *Cariboo Chilcotin School District #27*

Declaration statement: This Carbon Neutral Action Report for the period January 1st, 2016 to December 31st, 2016 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2016 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2017 and beyond.

By June 30, 2017 *Cariboo Chilcotin School District #27's* final *Carbon Neutral Action Report* will be posted to our website at www.sd27.bc.ca/sustainability.¹

Overview: In 2016, School District 27 took action to reduce GHG emissions through the following initiatives:

Cataline Elementary Biomass Heating Plant: A complete mechanical upgrade has been completed in the summer of 2016. The upgrade replaced all heating and ventilation equipment including the installation of a biomass boiler plant. The project includes providing heat to Thompson Rivers University next door and is expected to offset 4,800 GJ of natural gas or 260 tCO₂e annually.

Mile 108 Geo Exchange Commissioning: A full end-end commissioning of the ground source heat pump loop was performed. Commissioning included flushing out the geo field and optimizing the system set-points. This project is estimated to eliminate 40 tCO₂e annually.

Lake City Secondary – Williams Lake and Columneetza Campus Retro-commissioning through BC Hydro Continuous Optimization Program: these schools underwent an energy study to identify performance optimization opportunities. The work focused on demand based ventilation reducing unnecessary heating loads during unoccupied times alongside boiler parameter optimization.

Ongoing Energy Management Services contract: the school district has an energy management services contract with Rede Energy Solutions Ltd., on-going since May 2013. As an integral member of the school district's facility operations team, Rede collaborates with the director and key personnel to establish energy and GHG emissions reduction targets, identify improvement opportunities, conduct energy studies, obtain grants and incentive funding, and oversee the implementation of improvement projects. Annual evaluation of achievements and targets are key milestones of the strategic energy management plan, which aims to continue reducing emissions in 2017 and beyond.

¹ We are developing a new sustainability and energy management subpage for our SD27.bc.ca website. Exact link to where CNAR reports will be placed is to be determined.


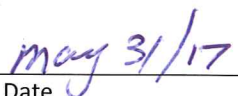

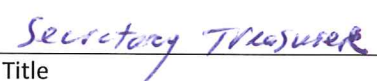
Emissions and Offset Summary Table:

School District 27 GHG Emissions and Offset for 2016 (tCO ₂ e)	
GHG Emissions created in Calendar Year 2016:	
Total Emissions (tCO ₂ e)	3,878
Total Offsets (tCO ₂ e)	2,457
Adjustments to GHG Emissions Reported in Prior 2015:	
Total Emissions (tCO ₂ e)	-843
Total Offsets (tCO ₂ e)	-839
Grand Total Offsets for the 2016 Reporting Year:	
Grand Total Offsets (tCO ₂ e)	1,618

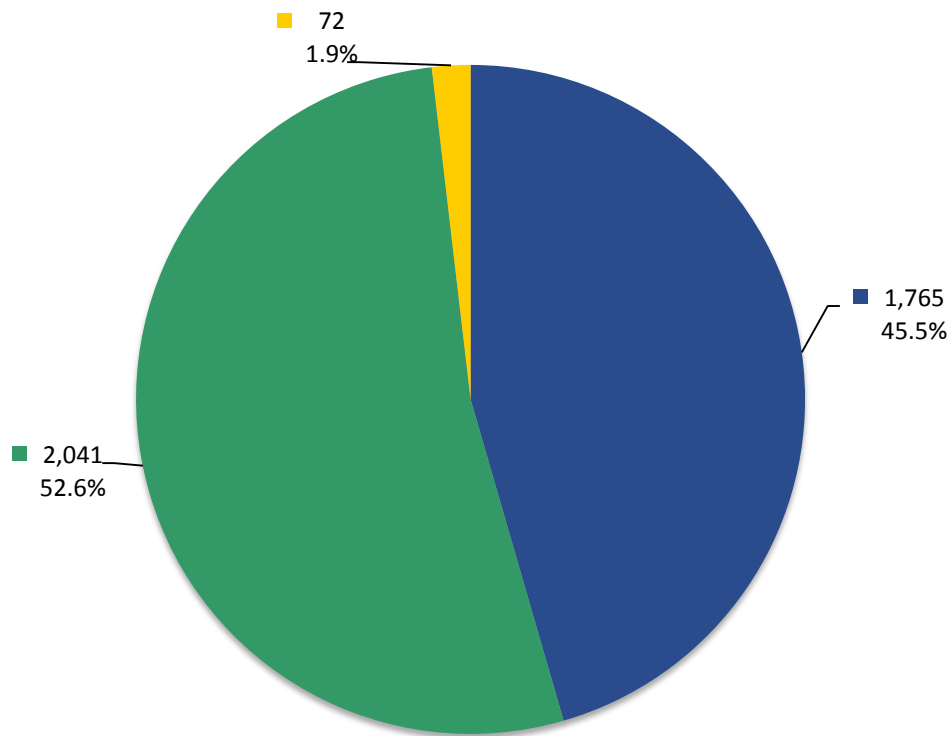
Retirement of Offsets:

In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, *Cariboo Chilcotin School District #27 (the Organization)* 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
 _____ Name (please print)	 _____ Title

**School District 27 - Cariboo-Chilcoltin
Greenhouse Gas Emissions by Source
for the 2016 Calendar Year (tCO₂e*)**



Total Emissions: 3,878

- 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 4:15 PM)

Total offsets required: **2,457**. Total offset investment: **\$61,425**. Emissions which do not require offsets: **1,422** **

*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.

2016 Carbon Neutral Action Report Survey

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Part One (external)

Contact Name(s):

Alex Telford, Nicole Pittman

Organization Name:

School District 27

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

- Conducted an energy audit/study of building(s) in the organization's portfolio
- Performed energy retrofits of the organization's buildings.: If yes, how many buildings?
- Other actions? Please describe briefly.: installed a 400kw pellet boiler that provides heat to one of our sites, we also provide heat to the university next door (TRU)

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

*continue with lighting upgrade projects
complete mechanical upgrades
boiler replacement projects
we are also planning an additional large pellet boiler project*

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

-
- Replaced existing vehicles with more fuel efficient vehicles (gas/diesel).: 1 bus and 6 white fleet
-

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

*we plan to continue monitoring our anti-idling program
we are constantly looking at our bus routes for efficiencies
all district vehicles are purchased with fuel efficiency in mind*

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

-
- Policy requiring the purchase of recycled content paper.: 30%
-
- Other actions? Please describe briefly.: by default all district copies are set to print double sided

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

(No response)

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

-
- Created a low-carbon travel policy or travel reduction goal (low-carbon = lowest emission of greenhouse gas per kilometre per passenger)
-
- 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
-
- 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

Other Sustainability Actions:

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

Select all that apply

-
- An operations policy or program to facilitate the reduction and diversion of building occupant waste (e.g., composting, collection of plastics, batteries) from landfills or incineration facilities
-