



2016

CARBON NEUTRAL ACTION REPORT

SCHOOL DISTRICT NO.54 (BULKLEY VALLEY)



2016 CARBON NEUTRAL ACTION REPORT

Declaration Statement:

This Carbon Neutral Action Report for the period of January 1st, 2016 – 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, School District 54 (Bulkley Valley) 2015 Carbon Neutral Action Report will be posted on our District website at www.sd54.bc.ca

Executive Summary:

Nestled in the Bulkley Valley, School District 54 spans 9600 km² of Northwestern BC wilderness. The district has a student population of approximately 2000 students, operates 7 schools as well as maintenance and administrative facilities. The geographic location of the district plays a substantial role in the districts carbon emissions due to unpredictable seasonal factors. Awareness, planning and optimization are all crucial in reducing the districts emissions.

The district remains committed to providing students with tools and learning materials that teach them to reduce their personal carbon footprint. Through active recycling programs, earth day promotion, indoor/outdoor school gardens, paper reduction strategies and implementation of technology students are learning how even small changes can have big impacts on the environment.

Key 2016 projects:

1. Review of heating controls

The district's maintenance department aggressively worked to identify, repair and optimize the districts energy consumption through heating and lightening controls. Programming various systems across the district to only be operational during school times and scheduled functions is estimated to have saved the district approximately \$5000.00 over the past year.

2. BC Hydro Continuous Optimization Program

The district is in its last year of the BC Hydro Continuous Optimization Program for Smithers Secondary School and Houston Secondary School. Annually the district is saving \$1519.65 from the energy adjustments that have been made.

3. Bus routes examined

The transportation supervisor combined bus runs where possible to reduce emissions.

4. Ride share

Maintenance crews began carpooling to Houston whenever possible.



2016 CARBON NEUTRAL ACTION REPORT

5. Twain Sullivan Elementary Boiler Upgrade

The district upgraded the boiler system at Twain Sullivan Elementary in Houston. Two older atmospheric boilers were replaced with 3 smaller energy efficient units.



Boiler upgrade at Twain Sullivan Elementary School

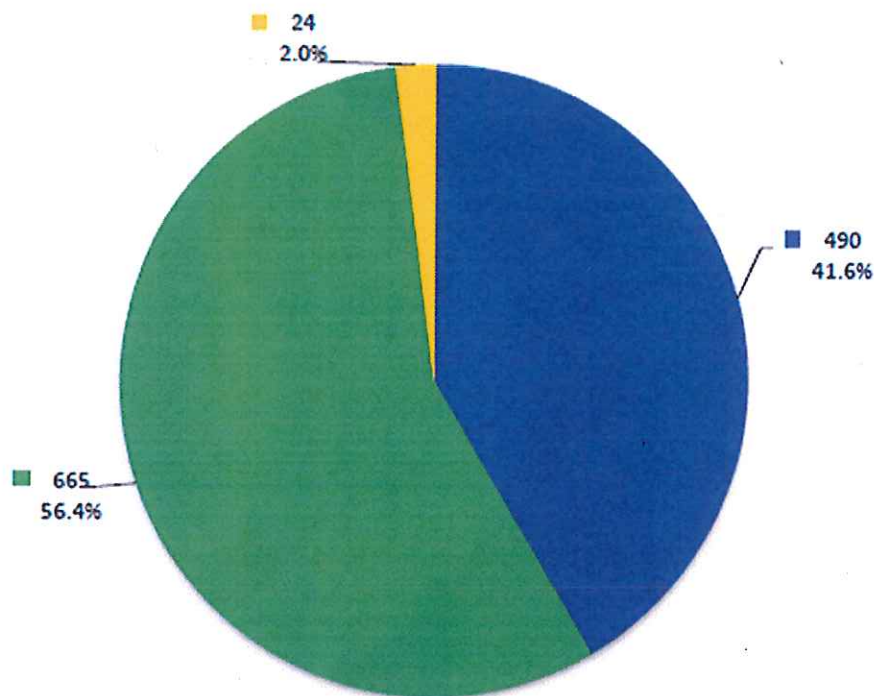
Upcoming projects:

1. Houston Secondary academic wing ventilation upgrade.
2. Use of Edulog software for bus route minimization and improvement.



2016 CARBON NEUTRAL ACTION REPORT

School District 54 - Bulkley Valley Greenhouse Gas Emissions by Source for the 2016 Calendar Year (tCO₂e*)



Total Emissions: 1,179

- 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 April 10, 2017 1:31 PM)

Total offsets required: 796. Total offset investment: \$19,900. Emissions which do not require offsets: 383 **

*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.

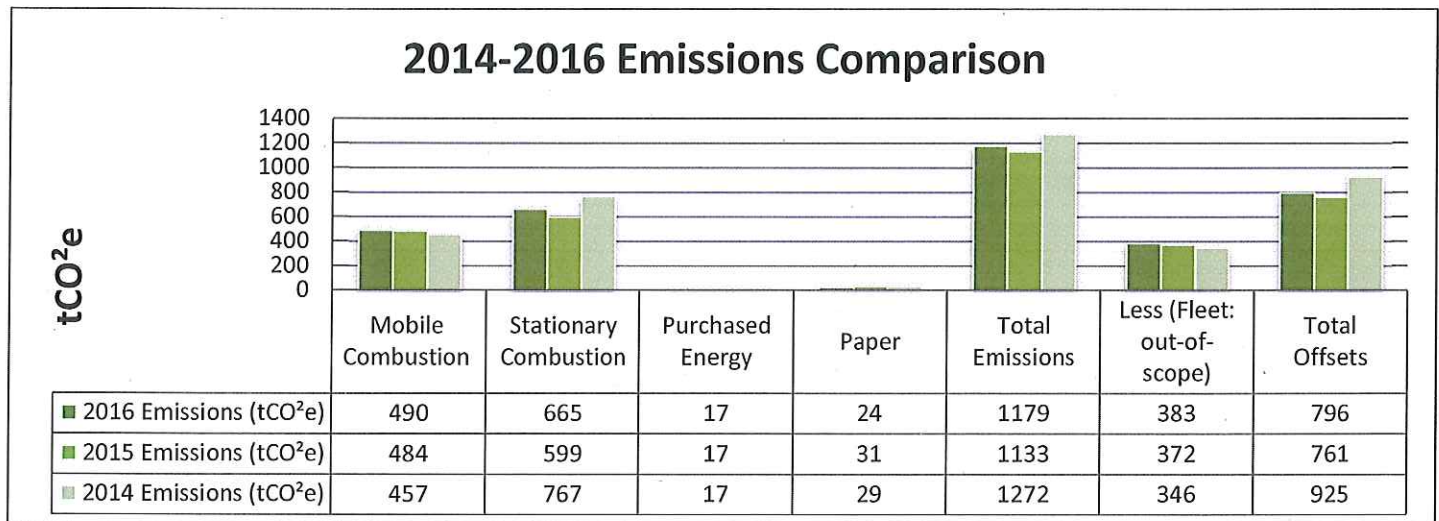
** Under the Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act, all emissions from the sources listed above must be reported. As outlined in the regulation, some emissions do not require offsets.



2016 CARBON NEUTRAL ACTION REPORT

SD54 Greenhouse Gas Emissions Comparison

Scope	2016 Emissions (tCO ₂ e)	2015 Emissions (tCO ₂ e)	2014 Emissions (tCO ₂ e)
Mobile Combustion (Fleet)	490	484	457
Stationary Combustion	665	599	767
Purchased Energy	17	17	17
Procurement – Paper	24	31	29
Total Emissions	1179	1133	1272
Exempt Offsets	383	372	346
Total Offsets	796	761	925



Offsets Applied to become Carbon Neutral in 2016

Total Offsets required: 796 Total Offset Investments \$19900.00 Emissions which do not require offsets: 383

*Tonnes of Carbon dioxide equivalent (tCO₂e) is a standard measure 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 eGreenhouse 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

Emissions and Offset Summary Table

School District 54 (Bulkley Valley) GHG Emissions and Offset for 2016 (TCO ₂ E)	
GHG Emissions created in Calendar Year 2016	
Total Emissions (tCO ₂ e)	1179
Total Offsets (tCO ₂ e)	796
Adjustments to GHG Emissions Reported in Prior Years	
Total Emissions (tCO ₂ e)	0
Total Offsets (tCO ₂ e)	0
Grand Total Offsets for the 2015 Reporting Year	
Grand Total Offsets (tCO ₂ e)	796

Retirement of Offsets:

In accordance with the requirements of the Greenhouse Gas Reduction Targets Act and Carbon Neutral Government Regulation, School District 54 (Bulkley Valley) 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 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.

On behalf of School District 54 (Bulkley Valley)

May 30, 2017

Les Kearns
Chairperson

Dave Margem
Secretary Treasurer

2016 Carbon Neutral Action Report Survey

Page 2

Part One (external)

Contact Name(s):

Darcie Frocklage

Organization Name:

School District No. 54 (Bulkley Valley)

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

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

1. BC Hydro DDC optimization program continuation
2. Monitoring of heating controls on a regular basis

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

Yes

If yes, please describe briefly:

BC Hydro Optimization Program

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.
-

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

Ride share to district locations outside of Smithers.

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

-
- Other actions? Please describe briefly.: Schools and district office use the second side of used paper
-

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

All staff and students are encouraged to only print when absolutely required and only the final document.

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

-
- Other, please describe briefly: Ride share to schools outside of Smithers
-

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

(No response)

Other Sustainability Actions:

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

Select all that apply

(No response)