#### **DECLARATION STATEMENT:**

This is the 2014 Carbon Neutral Action Report for School District 54 – Bulkley Valley. This report contains our 2014 emission profile, offsets purchased, the actions we have taken in 2014 to reduce our GHG emissions and our plans to continue reducing emissions in 2015 and beyond.

By June 29<sup>th</sup> School District 54's final CNAR will be posted to our website at www.sd54.bc.ca.

#### 1. EXECUTIVE SUMMARY:

In School District 54 (Bulkley Valley), efforts to reduce Greenhouse Gas Emissions (GHG) are guided by the School District Facilities plan and implemented with funds obtained by the Anunual Facilities Grant (AFG). Wherever possible, district funds are used to leverage third party funding to maximize the scope and benefits of projects.



#### Current projects have included:

- increasing recycled paper content purchased by the district,
- ➤ Direct Digital Control System added to control heat during normal operating hours reducing heat during off hours,
- improved insulation for facilitites,
- maintenance shop bay doors retrofitted with remote electronic openers and heat shut down,
- replacement of air compressor with more efficient programmable unit that can be turned off after working hours
- greater use of technology to reduce paper consumption,
- disposal or closure of facilities not being utilized.

In addition, some new initiatives were implemented by the school district:

#### **CARBON NEUTRAL ACTION REPORT 2014**

➤ Due to the success of the thermal imaging studies, heating upgrades and DDC systems in managing energy the SD#54 board will continue on those projects this year.





<sup>\*</sup>photographs of the maintenance building using both standard and thermal imaging cameras

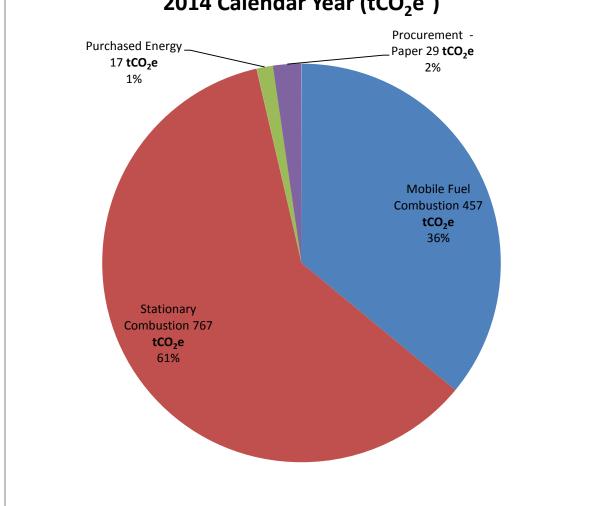
#### 2. 2014 GREENHOUSE GAS EMISSION

The table below provides relevant information on the district's total Greenhouse Gas Emissions by source.

Source*	2014 Emissions (tCO <sub>2</sub> e)	2013 Emissions (tCO2e)
Mobile Combustion (Fleet: in-scope)	457.	475.
Stationary Combustion	767.	762.
Purchased Energy	17.	26.
Procurement - Paper	29.	22.
Total Emissions	1272.	1285.
Less (Fleet: out-of-scope)	346.	375.
Total Offsets	925.	911.

<sup>\*</sup> It was estimated that stationary fugitive emissions from cooling do not comprise more than 0.01% of school District 54 (Bulkley Valley) emissions and an ongoing effort to collect or estimate emissions from this source would be disporportionately eroneous. For this reason, emissions from this source have been deemed out-of-scope and have not been included in school district 54 (Bulkley Valley) total Greenhouse gas emissions profile.

### School District 54 - Bulkley Valley Greenhouse Gas Emissions by Source 2014 Calendar Year (tCO<sub>2</sub>e\*)



#### Offsets Applied to Become Carbon Neutral in 2014

Total Offsets required: 925. Total Offset investment \$23,125. Emissions which do not require offsets: 346\*\*

<sup>\*</sup> Tonnes of Carbon diaoxide equivalent (tCO<sub>2</sub>e) is a standard measure which all types of greenhouse gases are expressed based on their globaal warming potential relative to carbon dioxide.

<sup>\*\*</sup> Under the Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act, All emissions from the sources listed above must be reported. As outlines in the regulation, some emissions do not require offsets.

#### 3. Offsets applied to become carbon neutral in 2014

As required by section 5 of the Carbon Neutral Government Regulation, 346 tonnes  $CO_2e$  of emissions resulting from the operation of school buses were reported as part of our greenhouse gas emissions profile in 2014. However, they were not offset as they are out-of-scope under section 4(2)(c) of the Carbon Neutral Government Regulation.

To achieve carbon neutrality in 2014, School District 54 (Bulkley Valley) purchased offset credits from the Pacific Carbon for a total of 925 tonnes of  $CO_2e$  emissions. The cost of those credits at \$25.00 per tonne was \$23,125.00. The purchase of the offsets is subject to the GST bringing the total cost to \$24,281.25.

#### **EMISSION AND OFFSETS SUMMARY:**

School District 54 GHG Emissions and Offsets for 2013 (TCO₂E)		
GHG Emissions created in calendar year 2013 :		
Total Emissions	1272	
Total Emissions for Offsets	925	
Adjustments to GHG Emissions Reported in Previous Years :		
Total Emissions	0	
Total Emissions for Offsets	0	
Credit Owing from PCT at end of 2013 reporting year :		
Credit Owing	0	
Total Emissions for Offsets for the 2014 Reporting Year	925	

#### **CARBON NEUTRAL ACTION REPORT 2014**

#### 4. Emissions Reduction Activities

#### **Actions Taken to Reduce Greenhouse Gas Emissions**

One of the successful inititatives this year was our work on air leakage at the maintenance building. Improved insulation for facilitities, specifically the maintenance office; maintenance shop bay doors retrofitted with remote electronic openers and heat shut down in order that when bay doors open, the heating system lowers output; greater use of technology to reduce paper consumption, for instance smart boards or overhead projectors; and the disposal or closure of facilities not being utilized. Other ongoing examples are paperless meetings, network controlled 'sleep' programs for computers, or electronic controls for thermostats. Boiler upgrade in the school board office was completed.

The SD54 School Board is in partnership with Town of Telkwa in a bio-fuel agreement. Town of Telkwa is providing heat to Telkwa Elementary School from their bio-fuel plant at a cheaper rate than natural gas.

#### Plans to Continue Reducing Greenhouse Gas Emissions

Plans to continue reducing Greenhouse Gas Emissions focus on air leakage repair at five schools, review and fine tuning of ventilation and heating systems. Mechanical and lighting upgrades will be done as funding permits. District is also planning on facility closure and movement of staff to school board office in order to reduce costs and therefore GHG emissions from heating and lighting.

On behalf of School District 54 (Bulkley Valley) Board of Education

Dated: May 31, 2014

Chairperson

Les Kearns

Secretary Treasurer

**Dave Margerm** 

# 2014 Carbon Neutral Action Report (CNAR) - Part 2 ACTIONS

#### **Organization Name**

School District #54 (Bulkley Valley)

#### **Actions Taken to Reduce Emissions**

### 1) Stationary Fuel Combustion, Electricity (Buildings):Indicate which actions were taken in 2014:

Performed energy retrofits on existing buildings

Yes

Built or are building new LEED Gold or other "Green" buildings.

No

Undertook an evaluation of overall building energy use.

Yes

Please list any other actions taken to reduce emissions from Buildings:

Installed Direct Digital Control Systems for reducing heat usage, and electric door openers in maintenance shop bays with auto off heat controls.

### 2) Mobile Fleet Combustion (Fleet and other vehicles):Indicate which actions were taken in 2014:

Do you have a fleet?

Yes

Replaced existing vehicles with more fuel efficent vehicles (gas/diesel) Yes
Replaced existing vehicles with hybrid or electric vehicles  No
Reduced the overall number of fleet vehicles No
Took steps to drive less than last year Yes
Please list any other actions taken to reduce emission from fleet:  District staff coordinate on site visits to allow for carpooling, regular maintenance to reduce consumption of fuel in fleet vehicles.
3) Supplies (Paper):Indicate which actions were taken in 2014: Used less paper than previous year Yes
Used only 100% recycled paper No
Used some recycled paper Yes

Used alternate source paper (Bamboo, hemp, etc.)

No

Please list any other actions taken to reduce emissions from paper use:

Continuing to make more meetings paper free using technology.

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#### **Actions Taken to Reduce Emissions - continued**

Explain how you plan to continue minimizing emissions in 2015 and future years:

Due to the success of the thermal imaging studies, heating upgrades and DDC systems in managing energy the SD#54 board will continue on those projects in the coming years.

If you wish to list any other "sustainability actions" outside of buildings, fleet, paper and travel check "yes". This reporting is optional.

Yes

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Actions to Promote Sustainability and Conservation - OptionalThe following are actions that fall outside the scope of the Carbon Neutral Government Regulation, but which many organizations still undertake and may wish to report on. This section is optional for reporting.

Business TravelCreated a low-carbon travel policy or travel reduction goal (Low-carbon: Lowest emission of greenhouse gases per kilometre per passenger)

No

Virtual Meeting TechnologyInstalled web-conferencing software (e.g., Live Meeting, Elluminate, etc.) Yes
Made desktop web-cameras available to staff Yes
Encourage alternative travel to meetings (e.g., bicycles, public transit, walking) No
Encourage carpooling to meetings Yes
Education and AwarenessHave created Green, Sustainability, Energy Conservation, or Climate Action Teams. Yes
Provided resources and/or dedicated staff to support these teams Yes
Provided behaviour change education/training for these teams (e.g., community-based social marketing) No
Established a sustainability/green awards or recognition program Yes
Support green professional development (e.g., workshops, conferences, training) Yes

Planning for Cimate ChangeHave assessed whether extreme weather events and/or long term changes in climate will affect our organization's business areas No
Long term changes in climate have been incorporated into our organization's decision making.
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Actions to Promote Sustainability and Conservation - Optional (continued)
Staff Awareness and EducationProvided education to staff about the science of climate change Yes
Provided education to staff about the conservation of water, energy, and raw materials Yes
Provided green tips on staff website or in newsletters No
Alternate Work/Commuting OptionsAllow for telework/working from home No
Staff have the option of a compressed work week No

Commuting by foot, bicycle, carpool or public transit is encouraged

Yes

Shower or locker facilities are provided for staff/students who commute by foot or by bicycle

No

Secure bicycle storage is provided

Yes

Other Sustainability Actions Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models No

Put in place a potable water management strategy to reduce potable water demand of building-level uses such as cooling tower equipment, toilet fixtures, etc. and landscape features

No

Have put in place an operations policy to facilitate the reduction and diversion of building occupant waste from landfills or incineration facilities

No

Have implemented a hazardous waste reduction and disposal strategy (Hazardous Waste: E.g., electronics including computer parts and monitors, batteries, paints, fluorescent bulbs)

Yes

Have incorporated minimum recycled content standards into procurement policy for consumable, non-paper supplies (e.g., writing instruments, binders, toner cartridges, etc.)

No

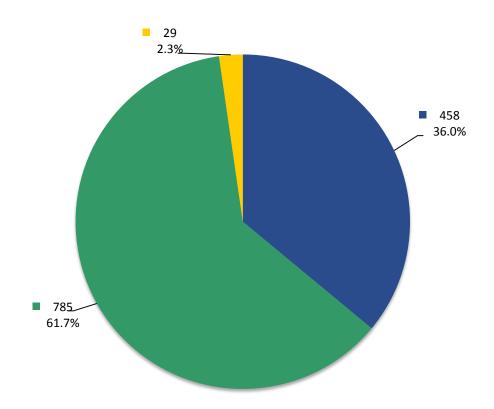
Established green standards for goods that are replaced infrequently and/or may require capital funds to purchase (e.g., office furniture, carpeting, etc.)
No

### Incorporated lifecycle costing into new construction or renovations No

## Please list and other sustainability actions you wish to report not included in the previous list.

The Green Team at Smithers Secondary School completed a bio dome greenhouse project on site that is heated by compost in the winter and provides herbs and vegetables to the school Foods and Nutrition classes, the breakfast program and the remaining produce is available for purchase by staff and students.

## School District 54 - Bulkley Valley Greenhouse Gas Emissions by Source for the 2014 Calendar Year (tCO<sub>2</sub>e\*)



#### **Total Emissions: 1,272**

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 2014 (Generated June 23, 2015 2:55 PM)

Total offsets required: 925. Total offset investment: \$23,125. Emissions which do not require offsets: 346 \*\*

<sup>\*</sup>Tonnes of carbon dioxide equivalent (tCO<sub>2</sub>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.

<sup>\*\*</sup> 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.