



Langley
Schools

School District #35
(Langley)

Carbon Neutral Report 2014

Published: June 30, 2015

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Declaration Statement

This Carbon Neutral Action Report (CNAR) for the period from January 1 to December 31, 2014 summarizes our emissions profile, the amount of offsets purchased to achieve net zero emissions, the action we have taken in 2014 to reduce our greenhouse gas (GHG) emissions and our plans to continue reducing emissions in 2015 and into the future.

By June 30, 2015 the CNAR for District #35 (Langley) will be posted on our website at www.sd35.bc.ca.

Overview

On behalf of School District #35 (Langley), we are pleased to submit our CNAR for 2014. This year's report, again demonstrates our District's ongoing commitment to the reduction of our greenhouse gas emissions. Our Board continues to work diligently, as we have for many years now, to improve the learning environment for students and staff by demonstrating leadership in the reduction of our carbon footprint.

Energy savings and subsequent GHG emission reductions continue to be a priority in our ongoing commitment towards carbon neutrality. This is shown through the revision to our sustainability policy which assigns accountability and emphasizes energy and resource conservation.

In 2014 we opened our new middle school, Yorkson Creek Middle on the Willoughby Slope, built to LEED gold standards. These standards ensure the building has been designed and constructed to be sustainable and use less energy than a conventional building. This includes using heat pumps to warm the building before the boilers are required which reduces our carbon emissions.

In addition our ongoing upgrades of both our mechanical and electrical systems reduce our carbon footprint by providing increased efficiency and greater operational control. With the support of the Ministry of Education's Carbon Neutral Capital Program (CNCP) we have upgraded to a high efficiency boiler plant at one of our secondary schools. With the support of BC Hydro we have completed four lighting upgrades.

In 2015, with the support of CNCP, we are performing a boiler upgrade at one of our secondary schools. We will be completing lighting upgrades at least at two elementary schools and re-lamping to lower wattage at one middle school. In addition we will be undertaking continuous optimization programs at two of our secondary schools to find low cost efficiencies within the existing mechanical and electrical systems. Several sites will have their lighting system audited to determine projects that can be performed for the next 2 years.

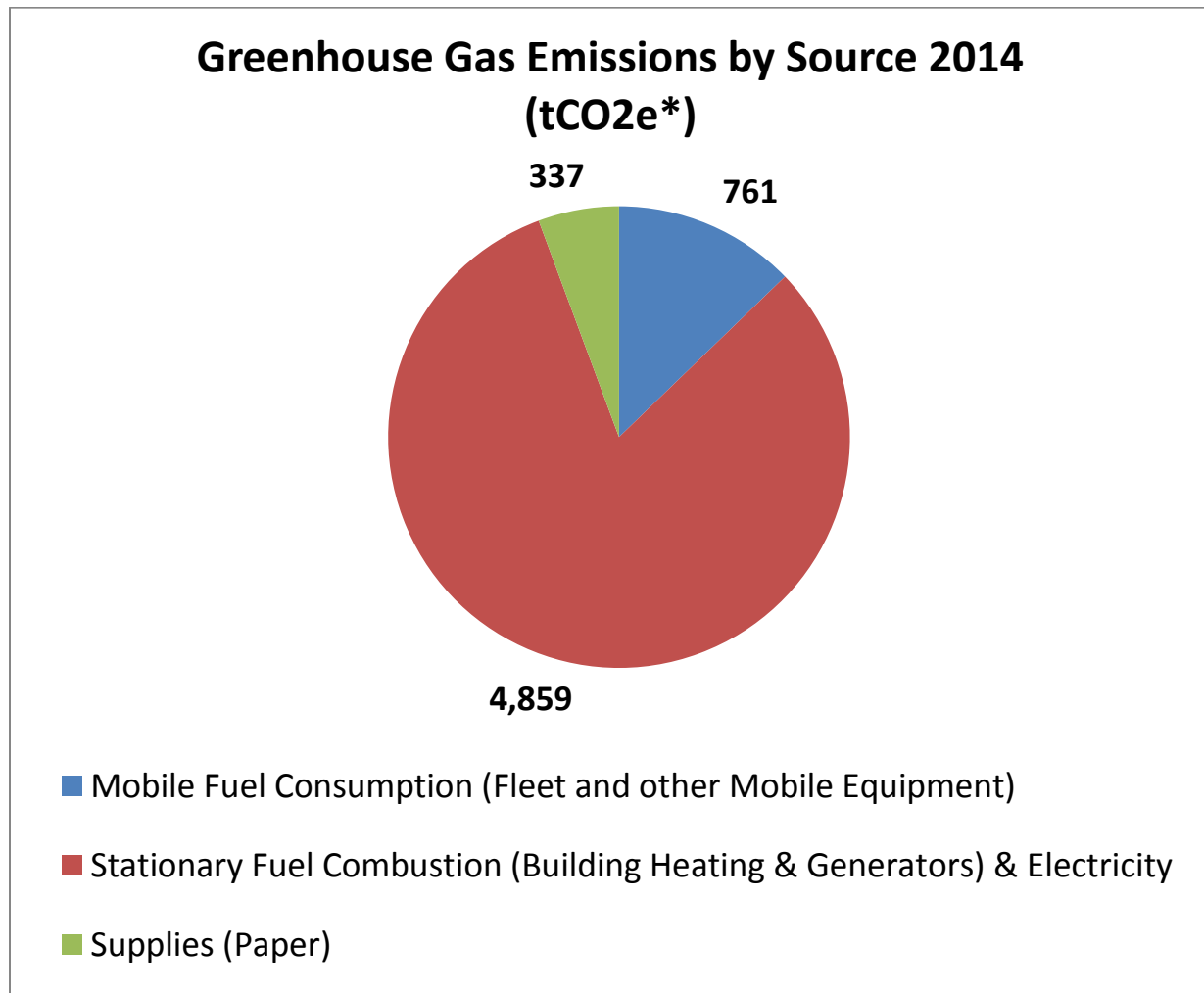
Our District is committed to GHG emission reduction and carbon neutrality through energy efficiencies. This is reflected in our Sustainable Energy Management Plan which shows a 3 year rolling investment in these efficiencies. We invest what we can and with the support of our external stakeholders are able to accomplish our goals.



David Green

Secretary Treasurer

Greenhouse Gas Emissions



*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.

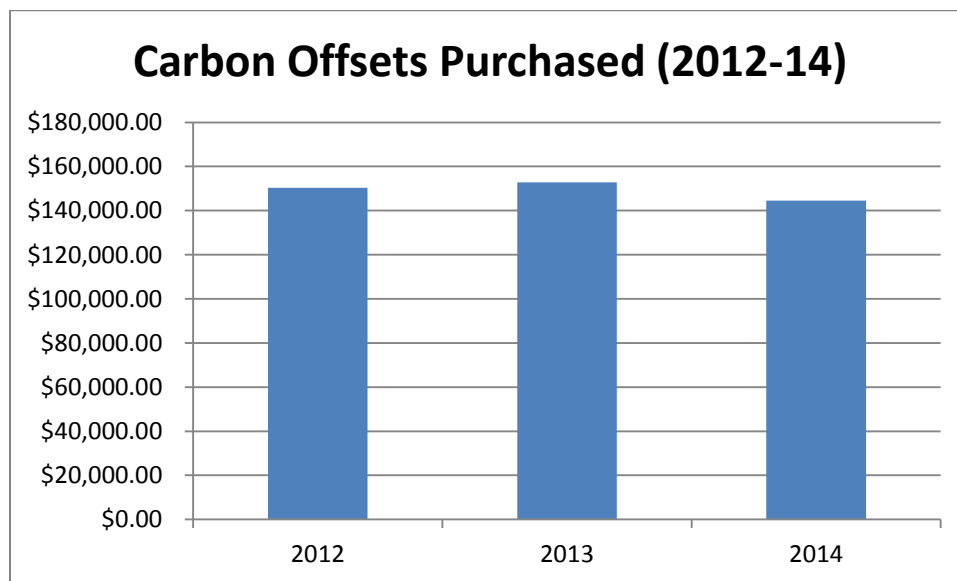
** Under the *Carbon Neutral Government Regulation of the Greenhouse Gas Reduction Targets Act*, all emissions

Emissions and Offsets Summary Table

School District #35 (Langley) GHG Emissions and Offsets for 2014 (TCO2E)	
GHG Emissions created in Calendar Year 2014	
Total Emissions (TCO2E)	5,956
Total Offsets (TCO2E)	5,506
Adjustments to GHG Emissions Reported in Prior Years	
Total Emissions (TCO2E)	-5
Total Offsets (TCO2E)	2
Total Emissions for Offset for the 2014 Reporting	
Total Offsets (TCO2E)	5,508

Greenhouse Gas Emissions and Offsets for Previous Years

Year	Total GHG Emissions (TCO ₂ E)	Exempt GHG Emissions (TCO ₂ E)	Offsets Purchased (\$)
2012	6,222	497	\$150,281.25
2013	6,291	471	\$152,775.00
2014	5,956	451	\$144,585.00



The School District of Langley is proud to that even with the addition a new middle school in 2014 we are still maintaining relatively stable levels of emissions. The 2014 carbon emissions were lower than previous years due to job action experienced in the year.

Actions Taken to Reduce Greenhouse Gas Emissions

- New LEED Gold school built and opened in 2014
- New High Efficiency Boilers installed at Aldergrove Community Secondary School
- Four lighting upgrades completed
 - Wix-Brown Elementary
 - Noel Booth Elementary
 - Fort Langley Elementary
 - School Board Office
- Pilot paperless program at several schools
- Paperless attendance sheets at the maintenance facility
- Maintenance crew zoning and work order grouping which resulted in less driving
- Feasibility study for retrofitting external lighting to LEDs
- Green teams competition to promote sustainability
- Organic waste redirection

Operational Changes in 2014

Yorkson Creek Middle is the newest LEED Gold building to the District and was opened on September 2014. This is the 3rd LEED Gold School we have opened in the last 3 years. There are great opportunities as new technologies to reduce energy consumption and consequently emissions are introduced at the new schools. Some of the technologies include solar walls, heat pumps, high efficiency boilers and electric car stations.

A revision to the Sustainability Policy 4010 outlines a stronger focus on energy and resource conservation in order to reduce the District's carbon footprint. By revising the policy it assigns accountability of the use of resources and efficiencies of various energy systems in the schools.

We have now extended our paperless practice to include employee attendance sheets and have begun pilot paperless programs in the classrooms to further reduce the paper demands of the district. Looking into the future the preventative and maintenance work orders may become paperless. This would not only allow for less paper consumption but also reduce driving as work order access is readily available.

Link to Other Publicly-Available Sustainability Information from Your Organization

BC Hydro has worked with Langley School District for many years now in partial funding of our Energy Management position and incenting many of our energy initiatives. They have assisted us in the creation of our Sustainable Energy Management Plan and work closely with us in achievement of our goals. Link to the BC Hydro Power Smart website can be found in our webpage at www.sd35.b.ca look under District and go to the energy & environment webpage.

2014 Carbon Neutral Action Report (CNAR)

- Part 2 ACTIONS

Organization Name

School District #35 (Langley)

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.

Yes

Undertook an evaluation of overall building energy use.

Yes

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

(No response)

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 efficient vehicles (gas/diesel)

No

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:

Car pooling and maintenance fleet zoning

3) Supplies (Paper):Indicate which actions were taken in 2014:

Used less paper than previous year

No

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:

Pilot paperless at schools

Paperless employee attendance sheets

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Actions Taken to Reduce Emissions - continued

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

Continue to build LEED buildings

Boiler Replacements

DDC upgrades for mechanical and electrical systems

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 Technology Installed web-conferencing software (e.g., Live Meeting, Elluminate, etc.)

No

Made desktop web-cameras available to staff

No

Encourage alternative travel to meetings (e.g., bicycles, public transit, walking)

No

Encourage carpooling to meetings

No

Education and Awareness Have 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)

Yes

Established a sustainability/green awards or recognition program

Yes

Support green professional development (e.g., workshops, conferences, training)

Yes

Planning for Climate Change Have assessed whether extreme weather events and/or long term changes in climate will affect our organization's business areas

Yes

Long term changes in climate have been incorporated into our organization's decision making.

No

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Actions to Promote Sustainability and Conservation - Optional (continued)

Staff Awareness and Education Provided education to staff about the science of climate change

No

Provided education to staff about the conservation of water, energy, and raw materials

No

Provided green tips on staff website or in newsletters

Yes

Alternate Work/Commuting Options Allow for telework/working from home

Yes

Staff have the option of a compressed work week

No

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

No

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

No

Secure bicycle storage is provided

No

Other Sustainability Actions Establish a water conservation strategy which includes a plan or policy for replacing water fixtures with efficient models

Yes

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

Yes

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

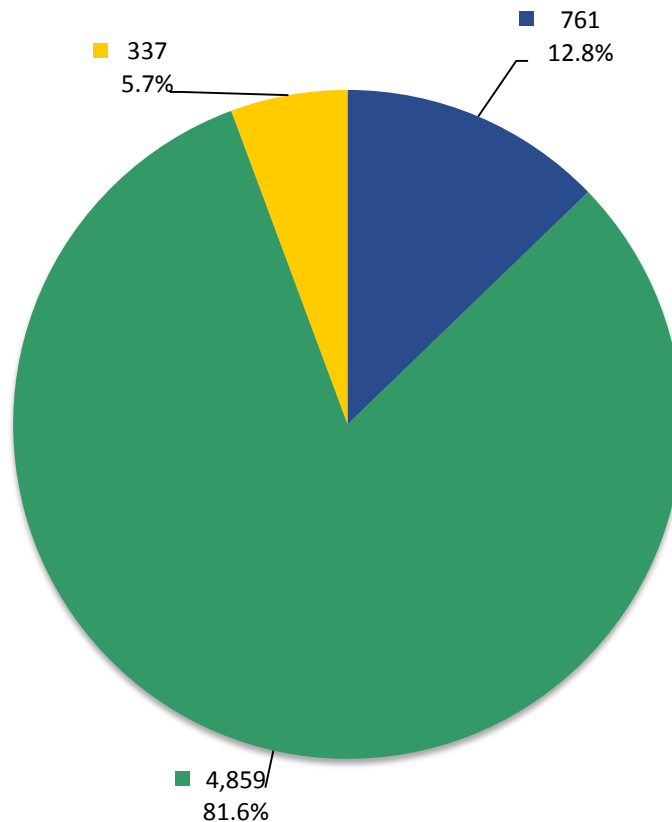
Incorporated lifecycle costing into new construction or renovations

Yes

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

(No response)

**School District 35 - Langley
Greenhouse Gas Emissions by Source
for the 2014 Calendar Year (tCO₂e*)**



Total Emissions: 5,956

- 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 12:17 PM)

Total offsets required: **5,506**. Total offset investment: **\$137,650**. Emissions which do not require offsets: **451** **

*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.