

SCHOOL DISTRICT NO. 85



3/23/2016

2015 CARBON NEUTRAL ACTION REPORT

School District No. 85

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Executive Summary

On behalf of the Vancouver Island North School District, I am pleased to submit the 2015 Carbon Neutral Action Report. This report provides an over view of the steps that the Vancouver Island North School District has taken to reduce its greenhouse gas emissions as well as other environmental sustainable actions that have been undertaken in the 2015 calendar year.

Environmental sustainability is deeply important to the Vancouver Island North School District. Our Energy Management Committee is now celebrating its fourth year in existence. Our Board of Education continues to support effective practice in the Environmental Sustainability focus areas such as Curriculum, Energy Conservation, Community Gardening, Sustainable Purchasing, Sustainable Transportation, Water Conservation and Waste Management.

The Greenhouse Gas reduction initiatives in 2015 continued to be focused primarily on reducing emissions from buildings, which is our largest source. Lighting upgrades have been completed in three schools and new boilers and air handling units installed in four buildings have made these locations more energy efficient.

We engage both our students and our employees, leveraging their knowledge and enthusiasm as we strive to lower GHG emissions and continue to generate financial savings and improve social benefits. Our employees are more engaged in working towards sustainability, and the students who create our future are becoming more passionate about caring for their communities and the world that surrounds them.



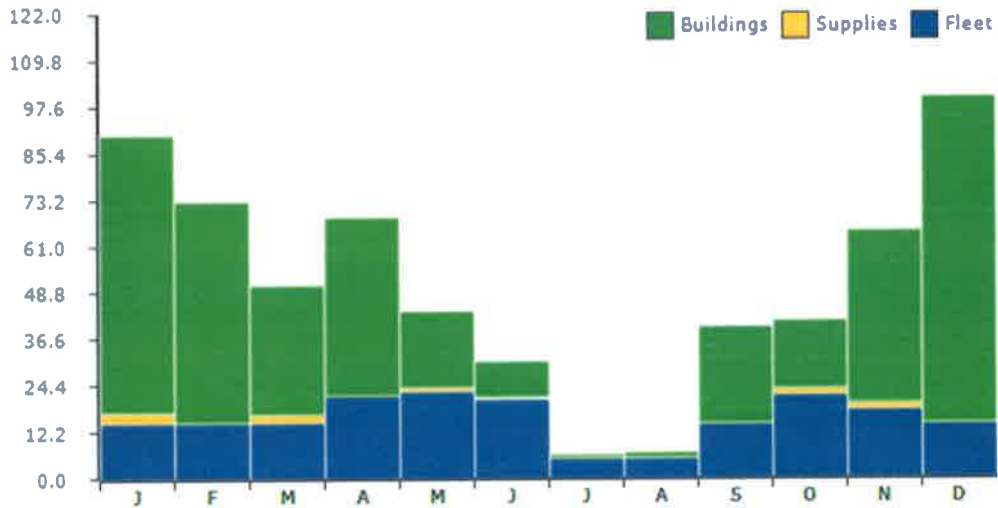
Dr. Scott Benwell
Superintendent of Schools

Greenhouse Gas Emissions

The total Greenhouse Gas Emissions for School District No. 85, Vancouver Island North for the 2015 calendar year were 631 tonnes CO₂e, which is down from 680 tonnes in 2014. The graph below shows the district emissions by source.

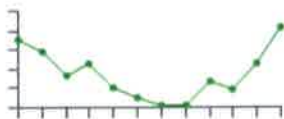
Total Emissions Calendar Year 2015 School District 85 - Vancouver Island North

Metric tonnes
CO₂ equivalent (tCO₂e)



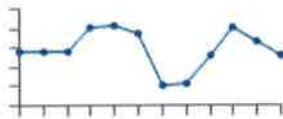
Buildings

GHG Emissions
(Metric Tonnes CO₂e)



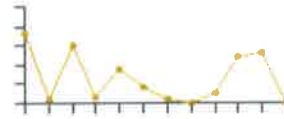
Fleet

GHG Emissions
(Metric Tonnes CO₂e)



Supplies

GHG Emissions
(Metric Tonnes CO₂e)



**School District No. 85
Vancouver Island North**

Buildings

The Greenhouse Gas emissions from buildings are the result of the burning of fossil fuels which are used to provide heating, cooling, ventilation and electricity. These account for 62% of total emissions within the district.

Fleet

Fleet emissions are emissions from fossil fuels (gas, diesel and propane), which are used to power the district's maintenance and transportation vehicles. The fleet emissions account for 30.7% of School District No. 85's total emissions.

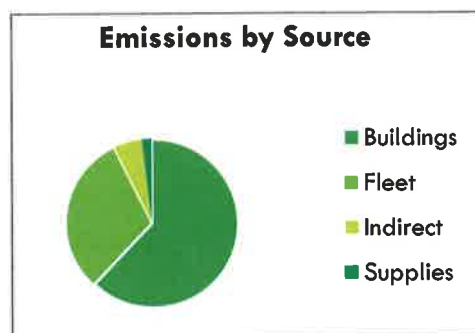
As required by section 5 of the Carbon Neutral Government Regulation, emissions resulting from the operation of school buses were reported as part of the greenhouse gas emissions profile in 2015. These emissions account for the majority of our fleet emissions and are not offset as they are out-of-scope under section 4(2) (c) of the Carbon Neutral Government Regulation.

Indirect Emissions

Indirect emissions is the data which refers to the consumption of purchased electricity, heat or steam that has been directly billed to the organization and which constitutes 5.4% of the overall emissions.

Supplies

Office paper purchased for use in the district is categorized as direct emissions and accounts for 1.9 % of the total emissions in School District No. 85



Fugitive Emissions

Fugitive emissions are the unintentional emissions from the production, processing, transmission, storage and delivery of fossil fuels; as well as the intentional combustion of fossil fuels not used to generate useful heat or electricity.

The following fugitive emissions are deemed by the British Columbia Provincial Government Carbon Neutral Government Regulation as out-of-scope for reporting:

- ✚ Gases used for research purposes (e.g.: science labs)
- ✚ Type R-22 coolant from stationary air conditioning and refrigeration units in schools
- ✚ Any emission sources that comprise less than 1% of the district's total GHGs

In-scope fugitive emissions (HFCs released to the environment as a result of leaks in cooling equipment) for School District 85 are well below the 1% threshold for reporting and are therefore not included.

Travel Related Emissions

Under the Carbon Neutral Public Sector commitment, only core government organizations that report through the Consolidated Revenue Fund (government ministries, tribunal employees, Crown Corporations) are required to track and report emissions from business travel of public officials. Vancouver Island North School District does not fall within 'core government' and therefore does not track travel related emissions.

Carbon Neutral in 2016

Offsets Applied to Become Carbon Neutral

In order to achieve carbon neutral status for 2015, the Board of Education of School District No. 85 (Vancouver Island North) purchased carbon offsets totaling 496 tonnes of CO₂e from the Pacific Carbon Trust in May of 2016 at a cost of \$13,020.00

Actions Taken to Reduce Greenhouse Gas Emissions in 2015

In 2015 School District No. 85 remained focused on replacing aging equipment and fixtures with newer, more energy efficient models.

The lighting systems at three school buildings were upgraded to more energy efficient T-8 fixtures which should provide a cost savings of approximately \$2000 per year.

Aging rooftop air handling units were replaced at both North Island Secondary School and Port Hardy Secondary School. These condensing units should bring reduced energy costs due to higher efficiency. Eagle View Elementary saw the replacement of one aging propane boiler with two smaller propane condensing units and A.J. Elliott Elementary saw two aging propane fired boilers replaced with two new condensing units.

Hydro is used in the School District for both lighting and heating purposes. The total electricity purchased from BC Hydro went from 3,361,546.01kwh in 2014 to 3,272,850.05 kwh in 2015, an overall decrease of 88,695.96 kwh.

Eight of the School District 85's properties are heated by propane. 2015 saw an overall decrease of 18,705.3 litres, from 280,648 litres in 2014 to 261,942.7 in 2015.

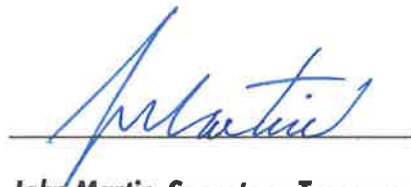
Plans to Continue Reducing Greenhouse Gas Emissions in 2015-2016

In 2016 the plan is to continue upgrading heating and hot water systems with more energy efficient models. Nine aging boilers are being replaced at Port Hardy Secondary with seven new higher efficiency condensing units. North Island Secondary will have the Shop and Gymnasium Air Handling Units and Exhaust systems replaced as they are currently beyond their expected useful service life. These projects are expected to reduce fossil fuel consumption, energy use as well as improve comfort and safety for occupants. We are also hoping to replace some of the 20 year old heat pumps within the district with hot water heated air handling units.

Education is ongoing amongst staff and students in the district as to how we can all do our part to reduce our environmental footprint. Purchasing recycled content products is endorsed and encouraged.

All school district properties are idle free and this is enforced through signage and verbal communications. Buses and maintenance vehicles are turned off when not being immediately used and ride sharing is encouraged whenever possible.

Our transportation department participates in an oil and filter recycling program to minimize their environmental impact and regular maintenance on all fleet vehicles ensures that they are running as efficiently as possible. 2016 will see the replacement of four of the busses in our fleet with newer more efficient models.



John Martin, Secretary-Treasurer

