2017 CARBON REPORT

May 2018

SCHOOL DISTRICT NO. 85

Vancouver Island North

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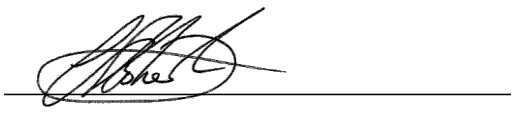
EXECUTIVE SUMMARY

On behalf of the Vancouver Island North School District, I am pleased to submit the 2017 Carbon Neutral Action Report. This report provides an over view of the steps that Vancouver Island North School District has taken to reduce its greenhouse gas emissions as well as other environmental sustaining actions that have been undertaken in the 2017 calendar year.

Environmental sustainability is deeply important to the Vancouver Island North School District. Our Energy Management Committee is now celebrating its sixth 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 2017 continued to be focused primarily on reducing emissions from buildings, which is our largest source. Three new high efficiency hydronic heated condensing boiler units were installed to replace seven propane rooftop units at Port Hardy Secondary School and two boilers were replaced with new condensing propane units at Sea View Elementary/Jr. Secondary School. Ongoing work is being done to synchronize the heat pump system at North Island Secondary School, which is a shared partnership between the Regional District of Mount Waddington and School District No. 85, to make it more efficient and reduce propane-operating costs.

We continue to engage both our students and our employees, leveraging their knowledge and enthusiasm as we strive for lower GHG emissions. Doing so has benefits beyond the environment as it generates both financial savings and 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.



Ms. Carol Robertson
Superintendent of Schools/CEO

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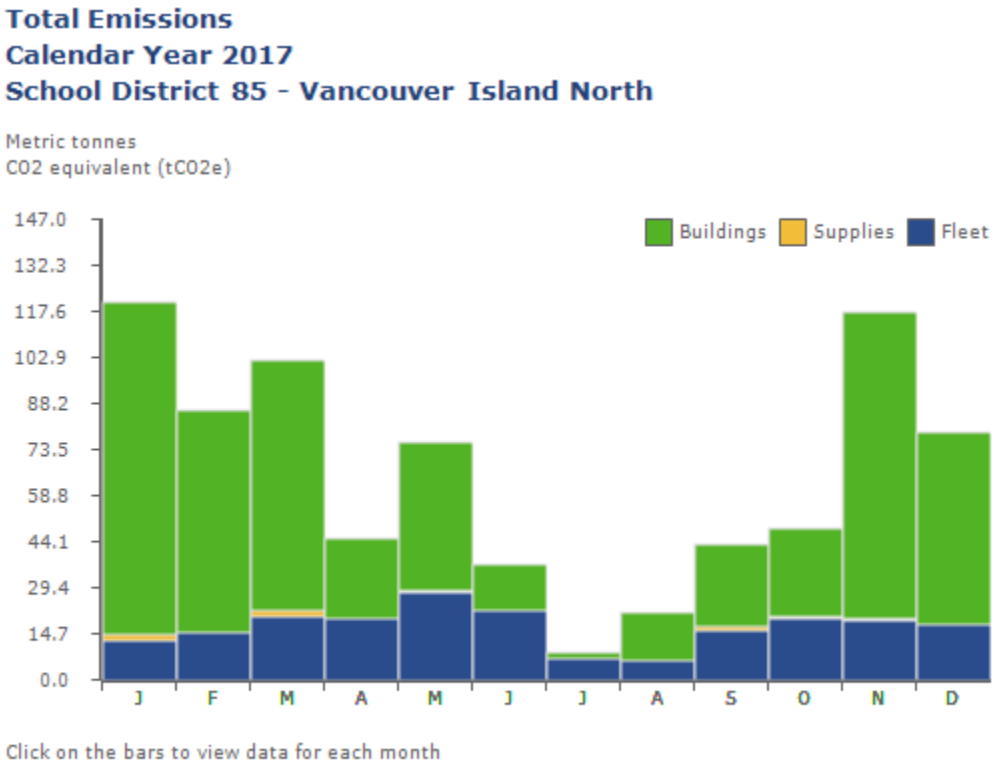
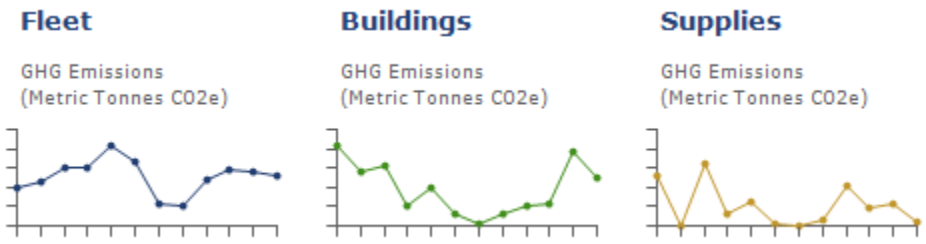
GREENHOUSE GAS EMISSIONS

The total Greenhouse Gas Emissions for School District No. 85 Vancouver Island North, for the 2017 calendar year were 803 tonnes CO2e, which is a slight increase from 644 tonnes in 2016. The graph below shows the district emissions by source.





FUGITIVE EMISSIONS

Fugitive emissions are the unintentional emissions from the production, processing, transmission, storage and delivery of fossil fuels and 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 GHG's

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.

OFFSETS APPLIED TO BECOME CARBON NEUTRAL

In order to achieve carbon neutral status for 2017, the Board of Education of School District No. 85 (Vancouver Island North) purchased carbon offsets totaling 652 tonnes of CO2e from Pacific Carbon Trust in May of 2018 at a cost of $17,115.00

ACTIONS TAKEN TO REDUCE GREENHOUSE GAS EMISSIONS IN 2017

In 2017, School District No. 85 continued in its efforts to replace aging heating systems with newer, more energy efficient models. Port Hardy Secondary School had seven aging propane rooftop-heating units replaced with three new high efficiency, hydronic heated, condensing propane units. Sea View Elementary/Jr. Secondary School saw the replacement of two old boilers with new condensing propane units.

Lighting systems are being upgraded on an ongoing basis with LED lights being introduced in place of fluorescent. Motion sensor light switches have been installed in washrooms, offices and some classrooms to reduce hydro consumption and waste.

Meeting packages within the District are being sent out electronically in an effort to reduce paper waste. Documents are being stored on internal servers whenever possible and photocopying is set to double sided. All schools and offices within the District recycle whenever possible and garbage cans have been removed from low use areas in order to reduce the number of bags being wasted.

Two new water bottle refill stations have been installed in school facilities in place of regular fountains in an effort to reduce the number of plastic bottles being used in the schools. Water reducing toilets are being

installed as replacements to older, high consumption models on an ongoing basis and aerator taps have been installed in numerous locations.

2017 saw the replacement of four aging school buses with newer more efficient models.

Hydro is used in the School District for both lighting and heating purposes. The total electricity purchased from BC Hydro went from 3,234,242 kWh in 2016 to 3,550,762 kWh in 2017, an overall increase of 316,520 kWh. This increase is likely due in part to colder seasonal temperatures in 2017 than in the previous year.

Eight of School District 85's properties are heated by propane. 2017 saw an overall increase of 108,083 liters, from 207,798 liters in 2016 to 315,881liters in 2017. This increase is also likely due in part to colder seasonal temperatures in 2017 than in the previous year.

PLANS TO CONTINUE REDUCING GREENHOUSE GAS EMISSIONS IN 2018

In 2018, the plan is to continue upgrading heating and hot water systems with more energy efficient models. Sunset Elementary School and North Island Secondary School will both be receiving upgrades to their building envelopes. North Island Secondary School will also see the replacement of one aging heat pump with a newer more efficient unit as the current unit is beyond it useful life expectancy.

Lighting fixtures are continuously being upgraded to LED rather than fluorescent, which should see a long term cost savings.

Two aging school buses will be replaced with new models and a gradual replacement of the white fleet will begin taking place.

Education is an ongoing commitment 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 encouraged and endorsed whenever possible.

All School District properties remain idle free, 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 filter recycling program to minimize their environmental impact and regular maintenance on all fleet vehicles ensures they are running as efficiently as possible.

Part 1: CNAR Survey

1. General Information

Name: Jennifer Cattermole

Contact Email: jcattermole@sd85.bc.ca

Organization Name: School District No. 85

Sector: School District

2. Stationary Sources (eg. Buildings, Power Generators): Fuel Combustion, Electricity use, Fugitive Emissions.

During 2017, did your organization take any of the following actions to support emissions reductions from buildings? (please select all that apply)

Performed energy retrofits of the organization's building(s)

If you selected "*Performed energy retrofits of the organization's building(s)*":

How many buildings were retrofitted?: 3

If you selected "*Built, or are building new LEED Gold or other "Green" buildings*":

How many new "Green" buildings?:

Did your Organization perform any retrofits during 2017? Please describe briefly:

We installed new propane fired condensing boilers at one school. New high efficiency roof top HVAC units were installed in on school, these were engineered to work in conjunction with the condensing hydronic system. A third school saw the installation of an upgraded HVAC system as well as the installation of new LED lighting throughout 20% of the building.

2a. Stationary Sources (eg. Buildings, Power Generators): Fuel Combustion, Electricity use, Fugitive Emissions.

Please briefly describe your organization's plans to continue reducing emmissions from its stationary sources:

a) Over the next 1-5 years

Continued upgrades to heating systems as well as building envelopes.

b) Over the following 6-10 years

Maintain and upgrade buildings and systems with an eye on higher energy efficiency.

3. Mobile Sources (Vehicles, Off-road/portable Equipment): Fuel Combustion:

During 2017, did your organization take any of the following actions to support emission reductions from its mobile sources? (please select all that apply)

Replaced existing vehicles with more fuel efficient vehicles (gas/diesel)

If you selected "*Replaced existing vehicles with more fuel efficient vehicles (gas/diesel)*":

How many vehicles?: 5

If you selected "*Replaced existing vehicles with hybrid or electric vehicles*":

How many vehicles?:

3a. Mobile Sources (Vehicles, Off-road/portable Equipment): Fuel Combustion:

Please briefly describe your organization's plans to continue reducing emissions from its mobile sources:

a) Over the next 1-5 years

Continue upgrading the maintenance and transportation fleet with more efficient vehicles.

b) Over the following 6-10 years

Continue upgrading the maintenance and transportation fleet with more efficient vehicles.

4. Supplies (Paper): Indicate which actions your PSO took in 2017:

During 2017, did your organization take any of the following actions to support emissions reductions from paper supplies? (please select all the apply)

Had an awareness campaign focused on reducing office paper use

If you selected "*Had a policy requiring the purchase of recycled content paper*":

State the required recycled content here (30%, 50%, 100%):

If you selected "*Had a policy requiring the purchase of alternate source paper (bamboo, hemp, wheat, etc)*", which type of alternate source paper did you use?

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

Going paperless whenever possible.

5. Other Sustainability Actions

a) Business Travel

During 2017, did your organization take any of the following actions to support emissions reductions from business travel? (please select all that apply)

None of the above

5) Other Sustainability Actions - Other? Please specify:: Carpooling whenever possible, using mass transportation for large group travel.

b) Education/Awareness

During 2017, did your organization have any of the following programs or initiatives to support sustainability education and awareness? (please select all that apply)

A Green, Sustainability or Climate Action Team

c) Other Sustainability Actions

During 2017, did your organization have any of the following programs or initiatives to support sustainability? (please select all that apply)

A water conservation strategy which may include a plan or policy for replacing water fixtures with efficient models; 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