



ABBOTSFORD
SCHOOL DISTRICT
RESPECT OPPORTUNITY INNOVATION

2019 Carbon Neutral Action Report

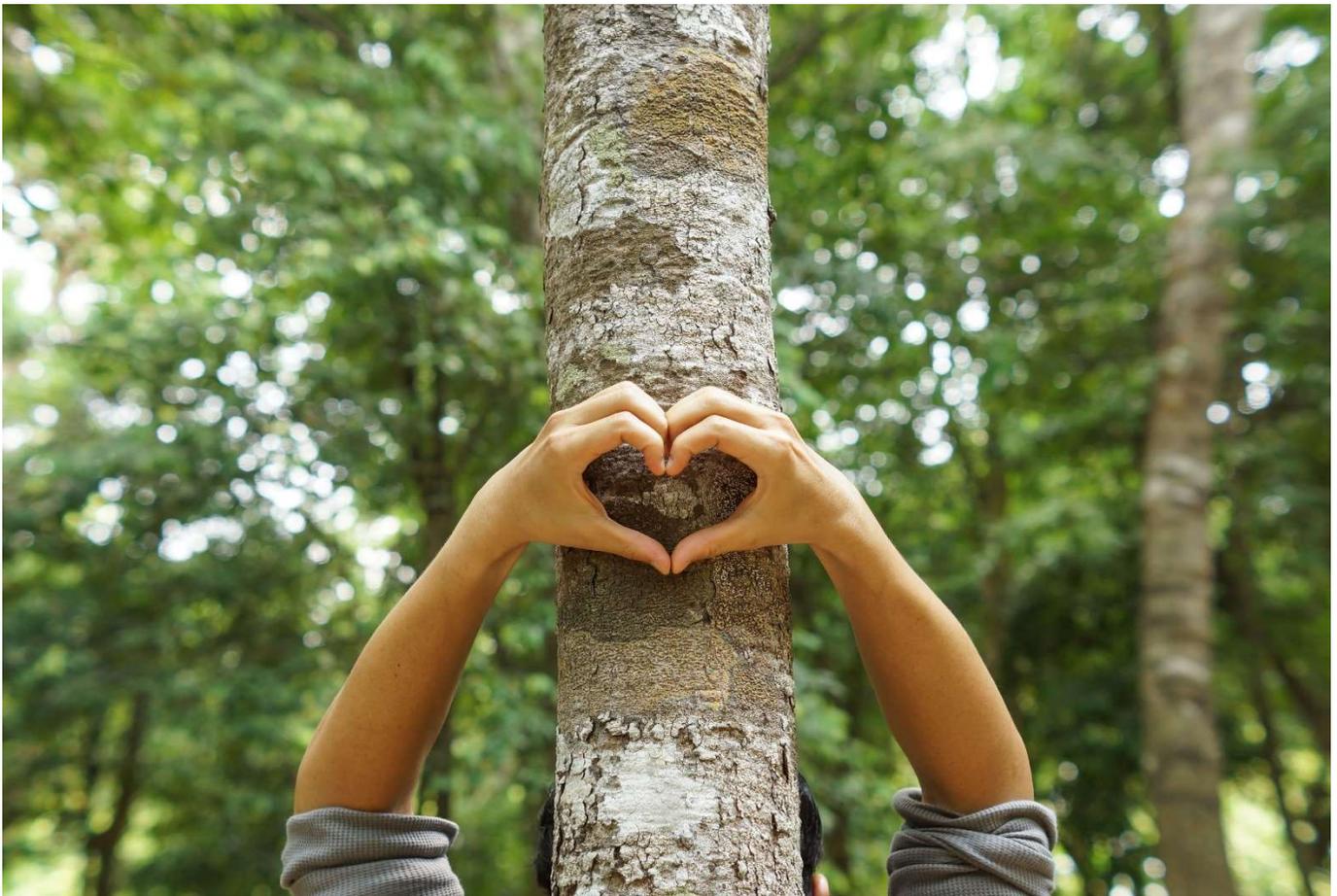


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Declaration statement

This Carbon Neutral Action Report for the period January 1st, 2019 to December 31st, 2019 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2019 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2020 and beyond.

By June 30, 2019 The Abbotsford School District's final *Carbon Neutral Action Report* will be posted to our website at <http://facilities.sd34.bc.ca/departments/sustainability-utilities>

Abbotsford School District 2019 Carbon Neutral Action Report

Executive Summary

The Abbotsford School District has made a firm commitment to reducing its energy consumption and its greenhouse gas emissions (GHG's). This is made evident by the fact that the district began its GHG reduction efforts back in 2001 nearly 10 years before GHG reporting truly began. By 2010 the district had already reduced its natural gas and electrical consumption by over 30% each. Both energy consumption and GHG emissions have continued to decrease in the years since.

Currently the Abbotsford School District ranks as one of the lowest producers of GHG emissions in the province compared to other school districts on a GHG per student basis. This is due largely to the fact that every year the district has made, and continues to make, investments in both the technology and the people needed to help foster a culture of conservation. From less paper initiatives to LED lighting upgrades and from green team events to electric vehicles, district personnel are constantly looking for new ways to innovate and save.

There were numerous GHG emission reduction projects completed in 2019. Almost half of the district's buildings received energy efficiency upgrades of some kind. While most projects were small scale such as replacing existing lighting fixtures with LED fixtures in a single room, others such as the building envelope upgrades at Upper Sumas Elementary and Mt. Lehman Elementary were more extensive. The district also continued to lay the groundwork for future GHG reductions to the fleet by adding more electric vehicle charging stations to its electric vehicle charging network.

The most exciting GHG reduction project started in 2019 was phase 1 of a site-wide LED lighting upgrade at the facilities and maintenance yard. This project is the first pilot project that the district is undertaking to test out the new networked lighting controls technology. This emerging controls technology has the potential to provide building occupants with greater flexibility in terms of how they control the lighting in their room(s) while simultaneously, automatically optimizing the energy efficiency of those light fixtures. By using the facilities and maintenance yard as a pilot site, district staff will have the opportunity to learn how best to install and set-up this type of lighting technology. This in turn, will help to ensure that future projects that make use of this technology will go more smoothly and provide maximum value in terms of energy savings and building occupant satisfaction. GHG reduction initiatives are continuing in 2020 with a focus on LED lighting upgrades, electric vehicle charging stations, and heating system upgrades.

As the school district's primary goal is education, teaching our kids the value of conservation and the positive impacts that each and every one of them can have on the planet remains an important aspect of the district's GHG reduction program. Behaviour-based initiatives around waste reduction, paper reduction and energy conservation are some examples of the way in which students and staff are encouraged to take an active role in helping to reduce GHG emissions both at school and within the surrounding communities where they live and play. It is through this combination of technological upgrades and behavior-based conservation efforts that the Abbotsford School District continues to drive down its greenhouse gas emissions year after year.

2019 Greenhouse Gas Emissions by source

Buildings

The biggest source of GHG emissions in the district comes from the use of natural gas and electricity for building heating and cooling (See Figure 1). Electricity is also used for ventilation and lighting as well as for the electronics, appliances and computers needed to operate schools and other district facilities.

Fleet

The direct emissions generated by the burning of fossil fuels such as diesel and gasoline in the district’s fleet of maintenance vehicles and buses are accounted for in the fleet category. In recent years the district has begun replacing some of its fleet vehicles with zero emission vehicles in order to reduce GHG emissions in this category. The district has also begun installing electric vehicle charging stations at some sites. There were two primary reasons for doing this. The first is to establish a district wide charging network that can be used by district maintenance and operations vehicles in the future as more of the fleet is gradually converted over to zero emission vehicles. The second reason is to encourage district staff to chose zero emission vehicles for personal use by providing them with charging opportunities at work.

Paper

Indirect emissions generated through the production of paper which the district uses in schools and offices are accounted for in the paper category. The district has undertaken numerous paper reduction initiatives in recent years. At the district level, many forms and procedures have been digitized. At the school level, the IT department has and is providing teachers, students and staff with an ever-increasing array of digital resources to help facilitate learning.

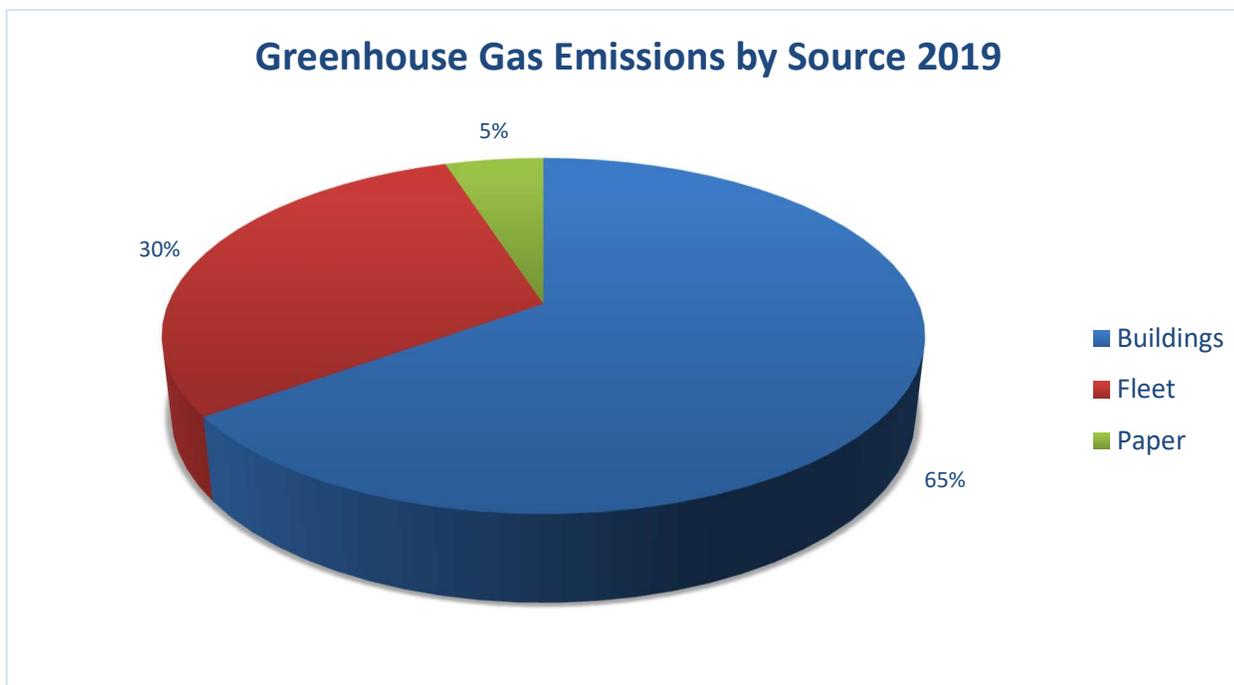


Figure 1 – Breakdown of GHG emissions by source in 2019

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Historic Actions Taken to Reduce Greenhouse Gas Emissions

Abbotsford School District’s journey to reduce greenhouse gas emissions began back in 2001 when the first energy conservation program was implemented. As shown in *Figure 2a & 2b* the district achieved significant reductions in both its electricity and its natural gas consumption between 2001 and 2010 although GHG emissions were not being tracked at that time. Through a combination of behavior change programs, equipment upgrades and building system optimization the district reduced electricity consumption by 36% and natural gas consumption by 31% between 2001 and 2010. Since GHG reporting began in 2010 the district has continued to steadily decrease its building energy use reducing electricity consumption by an additional 14% and natural gas consumption by an additional 26%. This results in a total electricity reduction of 45% and a total natural gas reduction of 49% since energy conservation efforts first began in 2001.

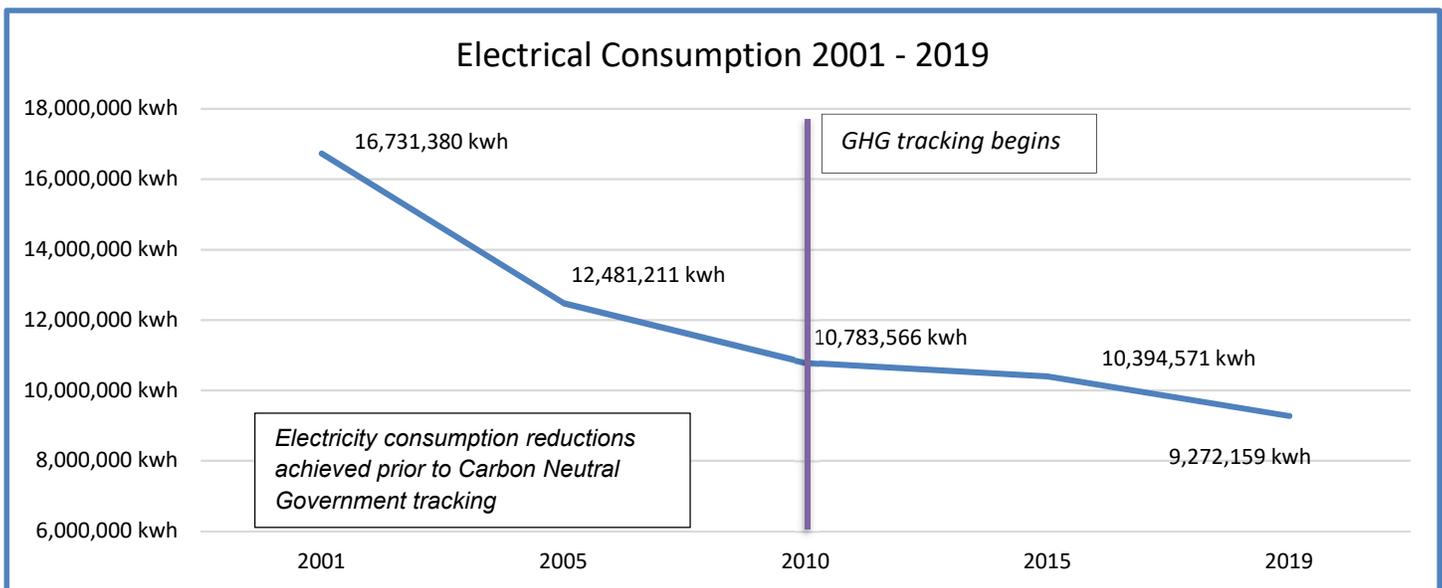


Figure 2a – Historic Electricity Consumption Reductions

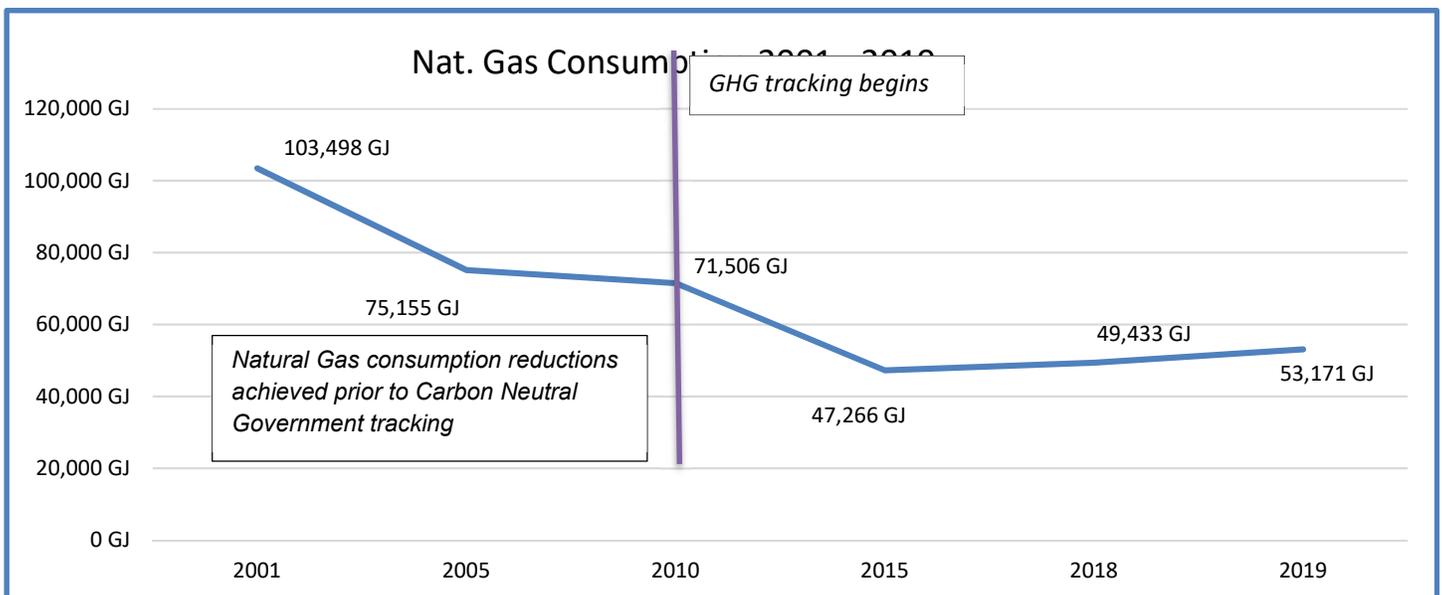


Figure 2b - Historic Natural Gas Consumption Reductions

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Over the years the district’s energy conservation efforts have fluctuated back and forth between natural gas conservation efforts and electricity conservation efforts. This is due in part to the availability of technology and in part to financial considerations. At present improved LED lighting technologies and the introduction of networked lighting controls have provided the district with new opportunities to reduce electrical consumption. As shown in the actions taken and actions planned sections of this report the district is endeavoring to adopt and explore these technologies to determine how they can be used to best advantage.

With regards to natural gas, in recent years conservation efforts have plateaued somewhat as the district has exhausted the potential energy efficiency upgrades and optimization opportunities available to it in the majority of its buildings. While the district continues to monitor new technological developments and look for additional economically feasible upgrade opportunities, the current focus for natural gas powered building systems is to maintain energy savings. As seen in *Figure 3*, natural gas consumption is highly correlated with the weather (as represented by the number of heating degree days that occur each year). This in turn explains the slightly higher natural gas consumption that was seen in the district over the past 3 years during which winters have been colder. However, as is also shown in *Figure 3* there now exists a significant gap between the red heating degree days line and the height of the blue bars which represent the number of GJ’s of natural gas consumed each year. This gap indicates that the amount of natural gas needed to meet the district’s heating needs is significantly less than it used to be for an equivalent number of heating degree days. This in turn means that the district’s building portfolio is more resilient than it used to be to cold weather fluctuations and that natural gas conservation efforts are being maintained.

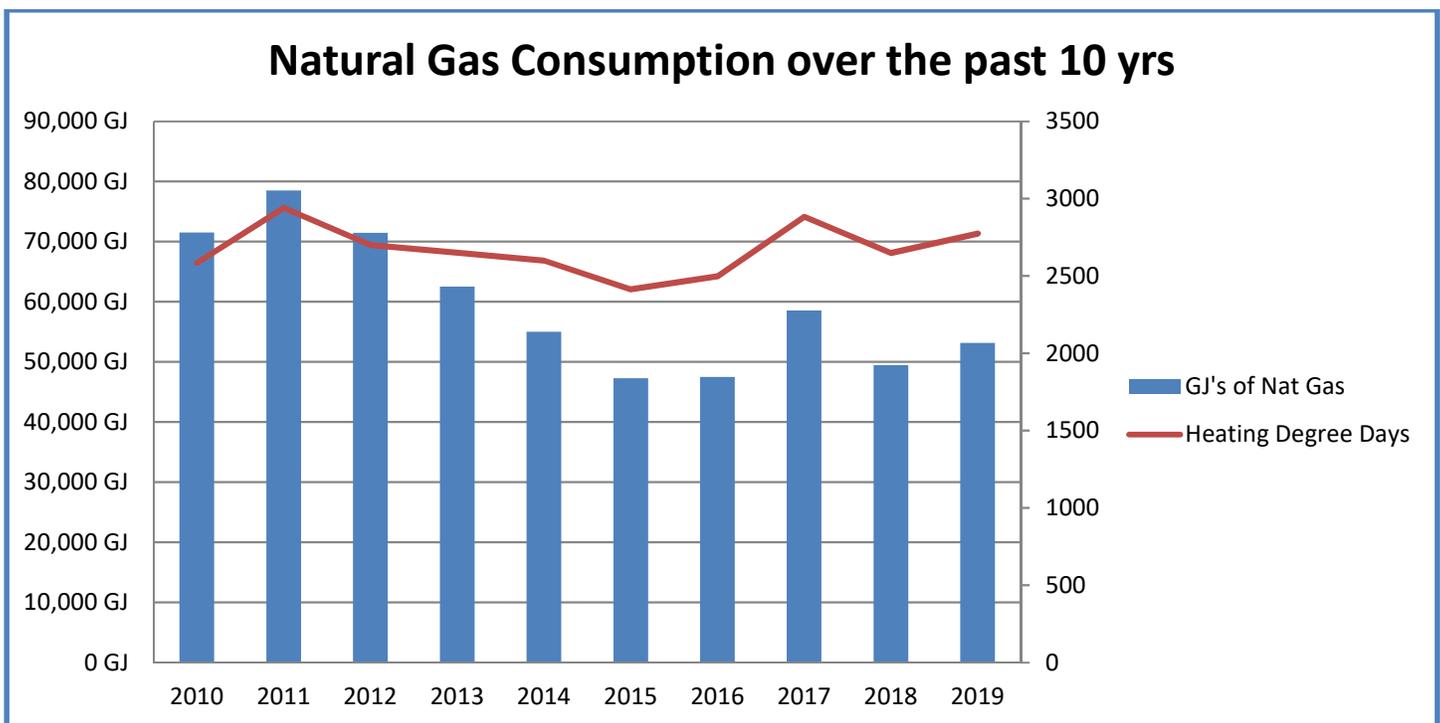
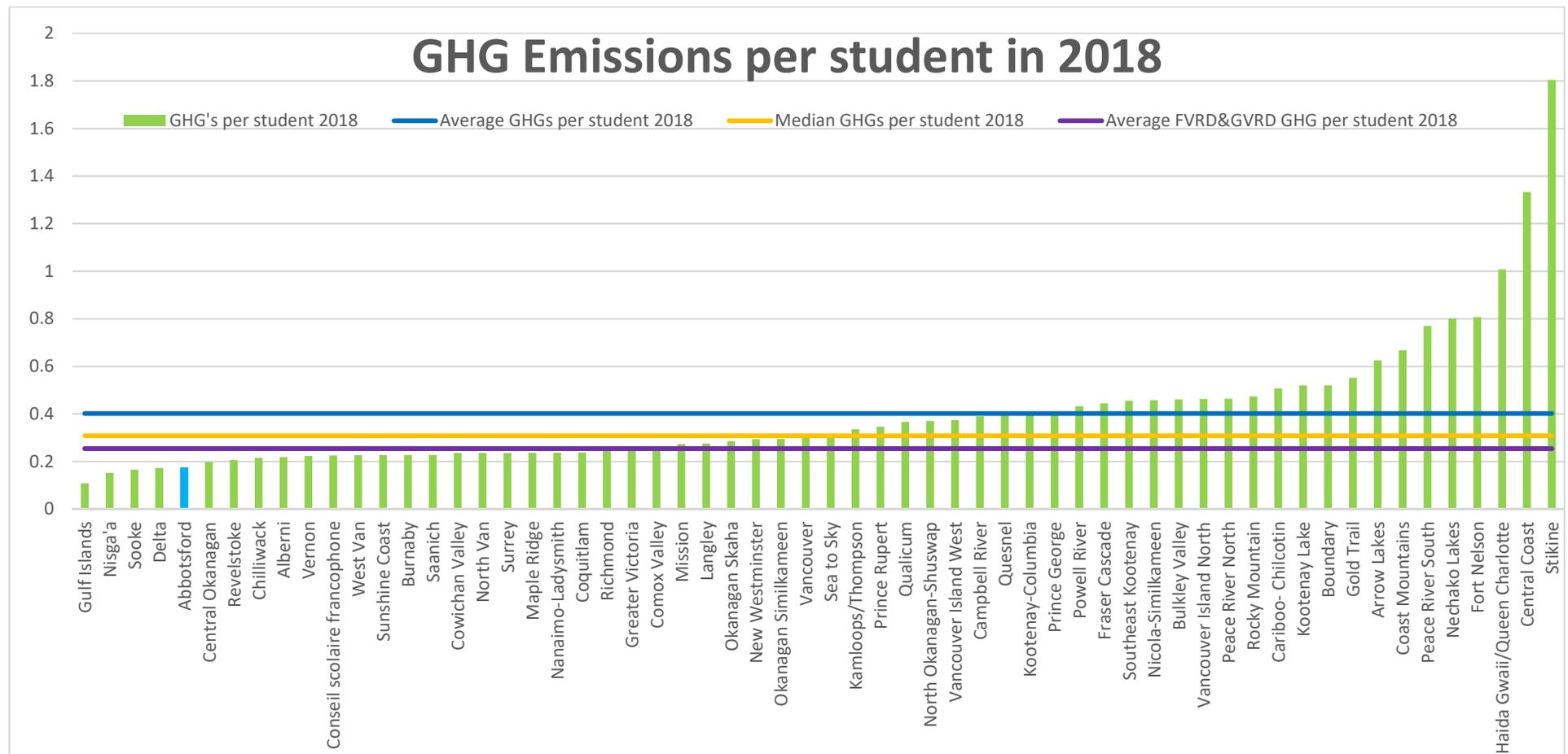


Figure 3 - Natural Gas Consumption Heating Degree Day Comparison

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How do we compare?

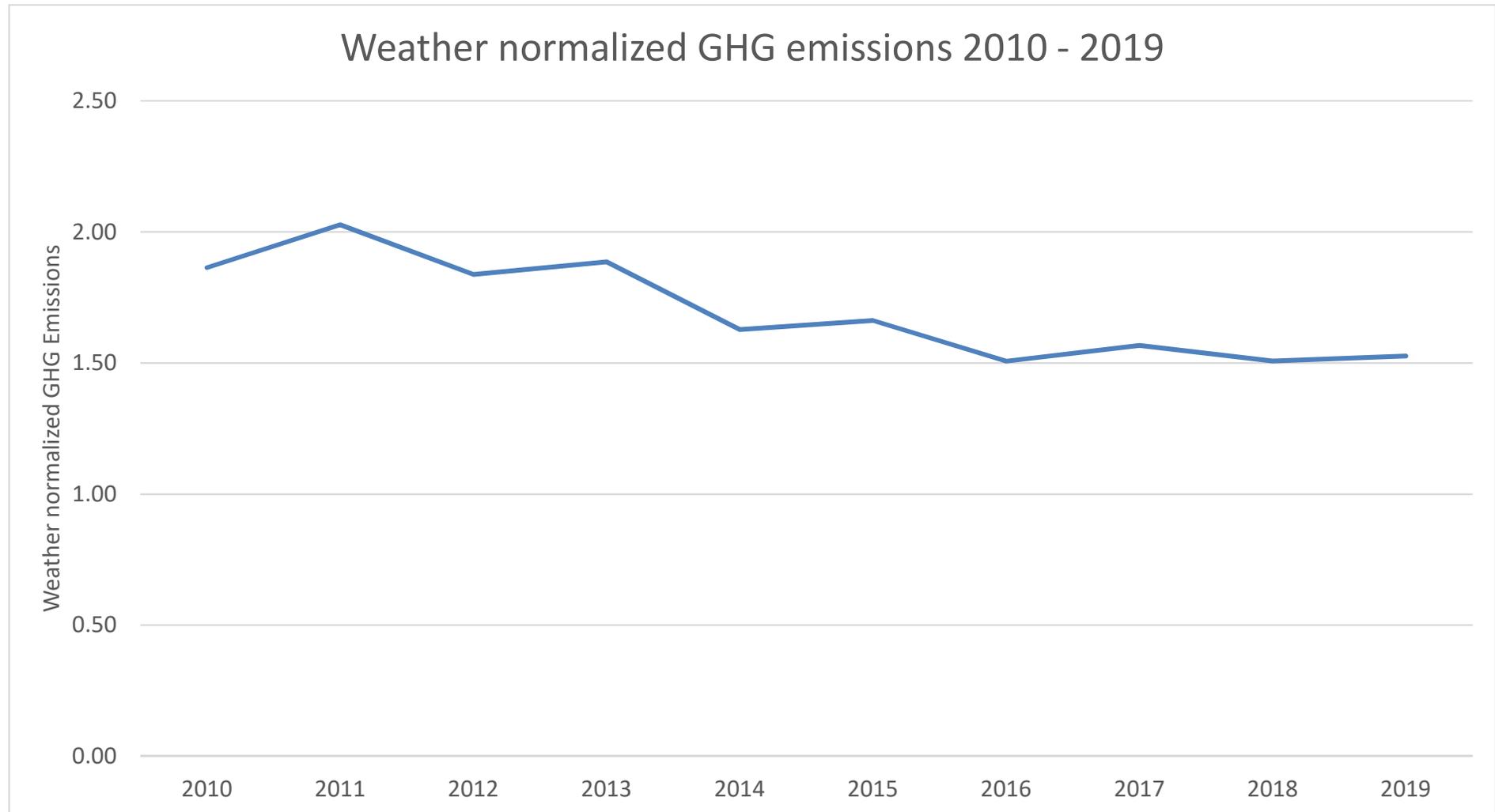
Using data from the past annual Carbon Neutral Action Reports for school districts around the province the following comparisons have been compiled. This data has been organized on a per student basis in order to allow for easier comparison from one district to the next. Also, two different averages have been calculated. The first average is based on all schools in the province while the second average is based solely on those schools in the Greater Vancouver and Fraser Valley areas where weather conditions are more temperate than in many other parts of the province. This distinction was made because the heating requirements for a school in the Fraser Valley, such as those in Abbotsford, are generally less than the heating requirements in a northern school or one further inland. When compared on this basis the Abbotsford School District has one of the lowest GHG emissions per student scores in the province.



**Note: At the time of writing 2018 GHG data is the most recent publicly available data for all school districts

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In terms of the percentage change in emissions overtime, as of 2019, the Abbotsford School District has reduced its GHG emission by 12% in terms of absolute emissions and 18% in terms of weather normalized GHG emissions. This leaves a 15% reduction drop still needed to reach the 2020 goal of a 33% reduction. It is important to note however, that part of the reason that the district does not have higher GHG reductions during the reporting period is because so much GHG reduction work was done before the tracking and reporting of GHG's began in 2010. Nevertheless, plans are in place to continue reducing GHG emissions every year.



**Note – 2019 numbers should be considered estimates only, as at the time of writing 2019 data had not yet been verified by the Carbon Action Secretariat

Actions Taken to Reduce Greenhouse Gas Emissions in 2019

Key Projects:

- Small Scale LED lighting upgrades at 20 sites
 - Gym lighting upgrades completed at 8 sites
 - Full or partial exterior lighting upgrades completed at 6 sites
 - Parking lot lighting upgrades completed at 3 sites
 - Other single or multi-room, small scale interior LED lighting upgrades completed at 7 sites
- Phase 1 of a site-wide LED lighting upgrade (including Networked Lighting Controls) completed at the Facilities and Maintenance Yard.
 - The projected savings for the LED lighting upgrade portion of this project are 35,000 kWh of electricity which is equivalent to a 315 tonne/yr¹ reduction in CO₂
 - Networked Lighting Controls expected to generate additional electrical & GHG savings
- 3 - level 2 charging stations added to the district's electric vehicle charging infrastructure.
- Continuous Optimization
 - Abbotsford Senior Secondary School – implementation of energy efficiency measures completed
 - WJ Mouat Secondary School – implementation of energy efficiency measures completed
- Building Envelope upgrades at
 - Upper Sumas Elementary – All windows replaced
 - Mt. Lehman Elementary – Building envelope & insulation replaced around 50% of the school
- Domestic hot water tanks upgraded to high efficiency units at 3 sites
- Portable furnaces upgraded to high efficiency units at 6 sites.
- GHG related site based green team activities complete this year included:
 - Unplug before you go, pre-holiday shutdowns to conserve electricity and natural gas
 - Sweater days to conserve electricity and natural gas
 - Lights out lunches to conserve electricity
 - Battery and pen/marker recycling to divert waste from the landfill

¹ Calculated at 9 tCO₂e/GWh as per BC Hydro's greenhouse gas intensities 2015 as found on their website: https://www.bchydro.com/about/sustainability/climate_action/greenhouse_gases.html

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GHG Reduction Actions Planned for 2020

- Small Scale LED lighting upgrades at 16 sites
 - Gym lighting upgrades planned at 2 sites
 - Full or partial exterior lighting upgrades planned at 8 sites
 - Parking lot lighting upgrades planned at 1 site
 - Other single or multi-room, small scale interior LED lighting upgrades completed at 5 sites
- Phase 2 of a site-wide LED lighting upgrade (including networked lighting controls) completed at the Facilities and Maintenance Yard.
 - The projected savings for the LED lighting upgrade portion of this project are 35,000 kWh of electricity which is equivalent to a 315 tonne/yr² reduction in CO₂
 - Networked Lighting Controls expected to generate additional electrical & GHG savings
- Phase 1 of a site-wide LED lighting upgrade (including networked lighting controls) will be completed at Rick Hansen Secondary School
 - The projected savings for the LED lighting and controls upgrade at this site are 150,00kWh/yr
- 16 - level 2 charging stations will be added to the district's electric vehicle charging infrastructure.
- Building Envelope upgrades at
 - Margaret Stenersen Elementary – Building envelope & insulation replaced around 35% of the school
- A full heating system retrofit will be completed at South Poplar Elementary school which will simultaneously improve school ventilation and heating will simultaneously improving the building's energy efficiency.
- Domestic hot water tanks upgraded to high efficiency units at 3 sites
- Boilers upgraded to high efficiency units at 2 sites
- 3 Rooftop Units replaced with High Efficiency dual-fuel heat pumps at WJ Mouat Secondary School
- Portable furnaces upgraded to high efficiency units at 4 sites.
- GHG related site based green team activities planned this year include:
 - Unplug before you go, pre-holiday shutdowns to conserve electricity and natural gas

² Calculated at 9 tCO₂e/GWh as per BC Hydro's greenhouse gas intensities 2015 as found on their website: https://www.bchydro.com/about/sustainability/climate_action/greenhouse_gases.html

2019 Success Story

In 2019 the school district began the first of two phases of a site-wide LED lighting upgraded at the Facilities and Maintenance Yard. Once completed, this project is expected to reduce the electricity consumption at this site by 35,000kWh which is equivalent to approximately 315 tonne CO₂e/yr³ or a 34% reduction in this site's GHG emissions. This upgrade which began in the fall of 2019 and will have its second phase completed in 2020, includes the installation of a new form of lighting controls technology called networked lighting controls. This form of lighting controls technology allows for far greater flexibility in how lighting can be used and controlled within a space. It includes features such as daylight harvesting and vacancy-based dimming which enable the lighting within a room to self-adjust throughout the day based on the availability of natural light and the room's occupancy. This can be done through multi-stage dimming which helps ensure worker safety while significantly reducing electricity consumption in intermittently used areas of the building or areas where natural lighting from windows provide adequate lighting for a portion of the day. It also incorporates the ability to tune the brightness of LED fixtures during install and throughout their useful life to get the maximum functionality and energy efficiency out of these fixtures. Using the facilities and maintenance yard as a pilot site for this new controls technology will enable the district to learn how this technology works, try out different types of lighting programming, and closely monitor the energy savings which result from this upgrade. The lessons learned in this project can then be applied to future projects such as the LED lighting upgrade planned at Rick Hansen Secondary School in the summer of 2020.

³ Calculated at 9 tCO₂e/GWh as per BC Hydro's greenhouse gas intensities 2015 as found on their website: https://www.bchydro.com/about/sustainability/climate_action/greenhouse_gases.html

Abbotsford School District 2018 Carbon Neutral Action Report
Emissions and Offset Summary Table:

Abbotsford School District GHG Emissions and Offset for 2018 (TCO2E)	
GHG Emissions created in Calendar Year 2018	
Total Emissions (tCO ₂ e)	3993
Total BioCO ₂	55.12
Total Offsets (tCO ₂ e)	3290
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 2016 Reporting Year	
Grand Total Offsets (tCO ₂ e)	3290
Total Offset Investment	\$86,362.50

***As per the directive issued on Mar 31, 2020 by the Executive Director of Clean BC Implementation from the Climate Action Secretariat: 2018 GHG Emissions Data has been used in the above chart as a place holder for 2019 GHG Emissions Data*

Retirement of Offsets:

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, *the Abbotsford School District (SD34) (the Organization)* is responsible for arranging for the retirement of the offsets obligation reported above for the 2018 calendar year, together with any adjustments reported for past calendar years (if applicable). The Organization hereby agrees that, in exchange for the Ministry of Environment and Climate Change Strategy (**the Ministry**) ensuring that these offsets are retired on the Organization's behalf, the Organization will pay within 30 days, 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.

Executive sign-off:

Signature



Date: May 28, 2020

Name: Ray Velestuk

Title: Secretary Treasurer

Confirmation number: 00BA3494

Submitted date: 2020-05-06 08:43:29 Pacific Daylight Time

Carbon Neutral Action Report Survey - 2019

Public sector organizations (PSOs) are required to complete this survey, in addition to a Carbon Neutral Action Report (CNAR) as mandated by BC's [Climate Change Accountability Act](#) and the [Carbon Neutral Government Regulation](#).

Due to the COVID-19 pandemic, the following [Directive](#) was issued on March 31, 2020. Certain deadlines were also extended for the 2019 reporting year (see below).

March 31, 2020 Directive:

Under my authority as the Director for the purposes of the Act, and under the authority delegated to me in Section 6 of the Carbon Neutral Government Regulation, I hereby direct that all ministries and Public Sector Organizations covered by the Carbon Neutral Government requirement shall use their 2018 GHG emissions as a temporary estimate for their actual 2019 GHG emissions, for the purposes of the 2019 Carbon Neutral Action Reports and 2019 Carbon Neutral Government reporting required under the Climate Change Accountability Act.

Neil Dobson, Executive Director, Clean BC Implementation
Climate Action Secretariat

Although 2018 emissions data will be used as a placeholder for 2019, **all other (qualitative) components of the CNAR and CNAR Survey are to be completed with information from 2019 (e.g., actions taken or planned to reduce emissions)**. The only change to the survey is that the deadline was extended by one month to June 30, 2020.

This survey is divided into two parts:

Part 1 - Will be made public on the Climate Action Secretariat (CAS) [website](#) after June 30, 2020; however, it will not be appended directly to each individual PSO CNAR as was done in previous years. This section collects details about actions taken or planned to reduce emissions and is intended to supplement the legislative requirements in your CNAR.

Part 2 - Will NOT be made public. Information you provide in this section is important and will be used internally to help CAS staff with planning for emissions reduction and climate change adaptation initiatives. Although not required, PSOs are highly encouraged to complete Part 2.

Note: Survey progress can be saved at any time by clicking the "Save and continue later" button at the bottom of each page. A new window will open and you will be asked to provide your name and email. An email will be sent to you from Carbon.Neutral@gov.bc.ca with the subject line: "Questionnaire Link", which will include a hyperlink for the "Project: Carbon Neutral Action Report Survey – Broader Public Sector 2019". You can then continue responding at another time or email the hyperlink to a colleague to complete remaining section(s).

May 29, 2020	<ul style="list-style-type: none">The final, signed version of the CNAR (or Small Emitters Form) must be submitted by email to: Carbon.Neutral@gov.bc.ca
June 30, 2020*	<ul style="list-style-type: none">Ministry of Environment and Climate Change Strategy must post a final CNAR for each organization on the BC Government's CNG website and each PSO is encouraged to post the report on their website.The CNAR Survey (optional for Small Emitters) must be completed and submitted online. *Deadline extended from May 29, 2020.<u>All offset invoice payments must be submitted to CAS.</u>
Sept 30, 2020*	<ul style="list-style-type: none">Clean Government Reporting Tool (CGRT) Data Entry must be completed for the 2019 reporting year.

	*Deadline extended from April 30, 2020.
Oct 15, 2020*	<ul style="list-style-type: none"> • Self-Certification checklist must be completed, signed and submitted by email to: Carbon.Neutral@gov.bc.ca. *Deadline extended from May 15, 2020.

*See the [Carbon Neutral Government – Program Requirements website](#) for more information on program requirements, timelines and templates.

PART 1 - Included as part of your public CNAR report.

Reminder that Part 1 will be made public on the CAS [website](#).

Contact Name:
<i>Julianne Pickrell</i>
Contact Email:
<i>julianne.pickrell@abbyschools.ca</i>
Organization Name:
<i>Abbotsford School District</i>
Role – Please select the best category for your current role with your organization. If more than one individual completed the survey, multiple categories may be selected:
Energy Manager
Please select your sector:
School District (SD)

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

Actions taken by your organization in 2019 to support emissions reductions from buildings

Do you have a strategy to reduce emissions from stationary sources?
Yes

Whether you have a strategy or not, briefly describe your organization's plans to continue reducing emissions from stationary sources:

Over the medium-term term (1-5 years)
<i>Continue upgrading building lighting systems to LED and integrating them with our building automation systems. Begin piloting the use of networked lighting controls. Continue upgrading boilers and domestic hot water heaters to high efficiency units. Continue converting rooftop units to heat pumps where appropriate. Continue upgrading existing furnaces to high efficiency units.</i>
Over the long term (6-10 years)
<i>Continue the medium-term measures and in addition, undertake building envelope upgrades of older sites. Build any new sites to net zero equivalent. Add renewable energy systems such photovoltaic and solar hot water heating to new and existing sites as appropriate.</i>

Please describe your strategy's goals (if any) related to energy audits.

Continuous optimization audits were completed on two of our sites this year. We also had full building lighting audits completed at three additional sites.

What % on average of your building portfolio has an energy audit completed each year (if any)?

5%

Please describe your strategy's goals (if any) related to building retrofits.

Retrofits are chosen based on several factors.
- the condition of the building and its equipment
- future plans for the facility / changes in building use
- the building's energy performance
- the potential for GHG emission reductions
- retrofit cost
- how invasive/disruptive the necessary work will be to building occupants

What % on average of your building portfolio is retrofitted each year in the following categories (if any) - click here for further information:

20% total across all of the listed retrofit categories.

Minor retrofits (e.g. low cost, easy to implement measures including caulking, lighting, adding roof insulation, etc.)

10 % - 15%

Major retrofits (e.g. replacing windows and doors, equipment replacement such as boilers, etc.)

5%

Deep retrofits (e.g. replacing roof, replacing the heating, ventilation and air-conditioning system with a renewable technology like a ground-source heat pump, etc.)

2%

Please describe your strategy's re/retro-commissioning goals (if any)?

We completed a formal recommission process at 2 sites this year through BC Hydro's Continuous optimization program. In addition to this, our Direct Digital Controls (DDC) dept has a less formal internal continuous optimization process whereby they regularly review the building automation system and look for potential areas of improvement. Anytime that heating equipment is replaced or DDC equipment is upgraded then the building automation programming for that site is reviewed and improved upon to optimize the utility and efficiency of the new system that was installed.

What % on average of your building portfolio do you recommission each year?

10 -20%

Do you keep records of Refrigerant gases¹ category and refilling volumes?

[1] Fugitive emissions from stationary cooling equipment are attributed to the leakage and loss of HFC and PFC based coolants from air conditioning and commercial type refrigeration systems. Coolant loss can occur during the manufacturing, operation, and disposal of such equipment. Gases that may be reported via CGRT include HFC R-134, HFC R-134a, HFC R-404a, HFC R-407c, HFC R-410a.

Yes

If yes, have you quantified and reported the associated emissions? What, if any, mitigation approaches have been considered? Please describe

No we have not quantified and reported these emissions. The records of refrigerant use are kept with the individual pieces of equipment. In terms of mitigation, the district has been gradually replacing the air conditioning units that use these refrigerants with units that use more environmentally friendly forms of refrigerant.

What, if any, mitigation approaches have been considered? Please describe.

Any time that refrigerant must be removed it is properly removed, safely stored and taken to the proper recycling depot. The district is also gradually eliminating the equipment that uses these forms of refrigerant.

How many newly constructed buildings received at least LEED Gold certification in 2019?

N/A

How many newly constructed buildings did not receive LEED Gold certification?

N/A

Please explain why LEED Gold certification was not obtained for those new buildings.

N/A

Other actions? Please describe briefly:

N/A

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

Actions taken by your organization in 2019 to support emissions reductions from mobile sources?

Do you have a strategy to reduce emissions from mobile sources?

Yes

Whether you have a strategy or not, briefly describe your organization's plans to continue reducing emissions from mobile sources:

Over the medium-term term (1-5 years)

- Purchase EV's to replace all of the IT department's vehicles.
- Pilot electric and hybrid electric service vans and pick-up trucks as technology becomes available.
- Pilot a Propane bus

Over the long term (6-10 years)

- Begin incorporating Electric buses and/or Propane buses.
- Replace all service vans and pick-up trucks with electric or hybrid electric equivalent vehicles as technology becomes available and cost competitive

How many fleet vehicles did you purchase from the following categories:

Electric Vehicle – EV - (e.g., Nissan Leaf, Chevy Bolt)

0

“Plug In” Electric Vehicle – PHEV (e.g., plug-in Prius, Chevy Volt)

0

Hybrid vehicle – HEV – non “Plug In”- (e.g., Toyota Highlander Hybrid)

0

Hydrogen fuel cell vehicle

0

Natural gas/propane

0

Gas/diesel vehicle

2

If you purchased new gas/diesel vehicles, can you briefly explain why vehicles from the other categories were not chosen?

We will always consider alternative-fuel vehicles, some reasons why we would stray away from alternative-fuel vehicles are:
- if budget + incentives do not allow for a particular purchase
- if particular options are not available (ie there are no alternative-fuel panel vans available)
- the available alternative-fuel vehicles do not have the appropriate horsepower or tow capacity available
- challenges with fuel/power supply

Actions taken by your organization in 2019 to support emissions reductions from mobile sources? (Continued)

How many existing EV charging stations does your organization have in each category:

Level 2?

14

Level 3?

0

How many level 2 stations (if any) are specifically for your fleet vehicles?

As defined as Level 2 stations only your organization's fleet vehicles may use

7

How many level 3 stations (if any) are specifically for your fleet vehicles?

As defined as Level 3 stations only your organization's fleet vehicles may use

0

How many EV charging station(s) did you install in 2019 in each category:

Level 2?

3

Level 3?

0

How many level 2 stations (if any) were installed specifically for your fleet vehicles?

As defined in the previous section

1

How many level 3 stations (if any) were installed specifically for your fleet vehicles?
As defined in the previous section

0

Please briefly describe any other related actions, (e.g. charging station feasibility studies, electrical panel upgrades, etc.)

To support the installation of EV charging stations at both sites this year the following additional activities were necessary:
- trenching to run conduit, install pull boxes etc for new electrical feeds
- installing no-posts, concrete pads and sign posts
- repainting of parking lot lines & decals
- training of staff on EV use & EV maintenance

Please indicate the total number of the vehicles in the following vehicle classes that are in your current fleet

Definitions:

- Light duty vehicles (LDVs) are designated primarily for transport of passengers <13 and GVWR<3900kg
- Light duty trucks (LDTs) are designated primarily for transport of light-weight cargo or that are equipped with special features such as four-wheel drive for off-road operation (include SUVs, vans, trucks with a GVWR<3,900kg)
- Heavy duty vehicles (HDV) includes vehicles with a GVWR>3,900 kg (e.g. ¾ tonne pick-up truck, transport trucks)

Light duty vehicles (LDVs)

Electric Vehicles – EV - (e.g., Nissan Leaf, Chevy Bolt)

4

“Plug In” Electric Vehicle – PHEV -- (e.g., plug-in Prius, Chevy Volt)

0

Hybrid vehicles – HEV – (e.g., non “Plug In”- older Toyota Prius, Toyota Camry hybrid)

0

Hydrogen fuel cell vehicles

0

Natural gas/propane

0

Gas/diesel

6

Light duty trucks (LDTs)

Electric Vehicles – EV

0

“Plug In” Electric Vehicle – PHEV

0

Hybrid vehicles – HEV – (e.g., non “Plug In”- older Ford Escape Hybrid, older Chevrolet Silverado pickup hybrid, etc)

0

Hydrogen fuel cell vehicles

0

Natural Gas/propane

0

Gas/diesel

9

Heavy duty vehicles (HDV)

Electric Vehicles – EV

0

“Plug In” Electric Vehicle – PHEV

0

Hybrid vehicles – HEV – (e.g., non “Plug In”)

0

Hydrogen fuel cell vehicles

0

Natural Gas/propane

0

Gas/diesel

103

Actions taken by your organization in 2019 to support emissions reductions from paper supplies.

Briefly describe your organization’s plans to continue reducing emissions from paper use:

Over the medium-term (1-5 years)

The district is continuing in its efforts to reduce paper use through creating digital resources and digital forms in a variety of departments. In addition to this the IT department continues to deploy technology and provide professional development training to teachers to enable them to use digital resources in the classroom rather than wholly paper based teaching materials.

Over the long term (6-10 years)

The district will continue to expand upon those efforts made in the medium term.

Do you have an awareness campaign focused on reducing office paper use?

No

Purchased alternate source paper (bamboo, hemp, wheat, etc.)

No

Other 2019 actions, please specify

N/A