Vancouver Coastal Health 2019 Carbon Neutral Action Report









Declaration Statement

This Carbon Neutral Action Report for the period January 1, 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. In 2010, Vancouver Coastal Health, Fraser Health, Providence Health Care and Provincial Health Services Authority consolidated their efforts towards environmental sustainability to create the GreenCare Community. By June 30, 2020, Vancouver Coastal Health's final Carbon Neutral Action Report will be posted to the GreenCare Community website at <u>bcgreencare.ca</u>

Retirement of Offsets

In accordance with the requirements of the Climate Change Accountability Act and Carbon Neutral Government Regulation, Vancouver Coastal Health (the Organization) is responsible for arranging for the retirement of the offsets obligation reported for the 2019 calendar year, together with any adjustments reported for past calendar years. 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.

The cover graphic is a modified aerial photo of the Vancouver General Hospital campus (photo credit – VGH and UBC Foundation).





COVID-19 Pandemic Statement

Due to the COVID-19 pandemic, the following Directive was issued on March 31, 2020:

"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 this Carbon Neutral Action Report (CNAR) are completed with information from 2019.

This document provides guidance to provincial public sector organizations (PSOs) to help them prepare their 2019 CNAR in accordance with BC's Climate Change Accountability Act and the Carbon Neutral Government Regulation.





Executive Summary

Vancouver Coastal Health

2019 Carbon Neutral Action Report

I am pleased to present the Vancouver Coastal Health (VCH) 2019 Carbon Neutral Action Report. VCH has now achieved carbon neutrality for the tenth consecutive year.

In 2019, VCH's emissions footprint was 40,672 tCO2e (tonnes of carbon dioxide equivalents), equating to an 18.8 per cent decrease since 2007. VCH purchased carbon offsets through the Climate Investment Branch of the Ministry of Environment and Climate Change Strategy at a total cost of \$1,015,725 to maintain carbon neutral status.

As the lungs of our planet, the health of our oceans is at a critical state. Warming temperatures are creating extreme weather events around the world causing heat-related illnesses and dangerous wildfire seasons, resulting in diminished air quality for longer periods.

As health care providers, we know all too well the need to act swiftly in an emergent situation. Furthermore, in public health, we have immense opportunities to work more sustainably to align to the provincial CleanBC Strategy.

VCH continues to implement an effective response to climate change by monitoring and reducing our emissions, moving forward on a range of energy and emission reduction projects, and developing climate resilience and adaptation strategies to inform our future facilities and campus planning. In 2019, this work is projected to reduce electricity consumption by over 1,100,000 kilowatt-hours (equivalent to the annual electricity consumption of 42 CT scanners) and natural gas consumption by over 18,800 gigajoules (equivalent to the annual natural gas consumption of 204 homes). This will directly reduce our carbon footprint by over 800 tCO2e per year and makes progress towards the provincial 2030 emission reduction targets (50 per cent reduction by 2030).

I am proud to state that I, along with over 1,799 other Vancouver Coastal Health staff, have joined our internal GreenCare Community in pursuit of reducing our operational energy and environmental impact. Reducing our impact will ultimately add to the health of our clients, staff, facilities, and benefit the wellbeing of the extended communities we serve.

As 2020 progresses, I will continue to support our innovative and collaborative approach towards reducing VCH's environmental and carbon footprint, which drives our commitment to create sustainable health care.

Mary Ackenhusen, President and Chief Executive Officer







Our CO₂ Footprint

As per the Directive issued March 31, 2020 by the Climate Action Secretariat, Vancouver Coastal Health will use the 2018 GHG Emission data as a placeholder for the purposes of their 2019 CNAR.

2019 GREENHOUSE GAS EMISSIONS BREAKDOWN

Vancouver Coastal Health reports its organizational carbon footprint based on guidelines provided by the Carbon Neutral Government Regulation and Climate Action Secretariat (CAS).

CAS uses various elements of reporting, based on the GHG Protocol Corporate Standard, which has classified carbon reporting into three scopes. Of these three scopes and various elements within each, CAS has determined Vancouver Coastal Health's carbon footprint to comprise of six different greenhouse gases, which are converted to tonnes of carbon dioxide equivalent (tCO₂e). These main sources of emissions are categorized in three main groupings: Stationary Combustion and Purchased Energy (buildings), Mobile Combustion (Fleet), and Supply (Paper).

As shown in the chart on the right, 98 per cent of Vancouver Coastal Health's in-scope emissions are attributed to the owned and leased buildings stationary combustion, and purchased energy; the largest area to focus our mitigation efforts.

Vancouver Coastal Health's 2019 carbon emissions were 40,672 tCO₂e. To become carbon neutral in 2019, Vancouver Coastal Health purchased carbon offsets offsets through the Climate Investment Branch of the Ministry of Environment and Climate Change Strategy at a total cost \$1,015,725



2019 VCH Emissions by Source

Mobile Fuel Combustion (Fleet & other equipment)
 Stationary Fuel Combustion & Electricity (Buildings)
 Supplies (Paper)

"The environmental impact from healthcare facilities, operations, and services affects the health of the populations and patients they are meant to serve."

- Adapted from World Health Organisation & Healthcare without Harm





Natural gas is the predominant fossil fuel used for space heating, hot water and process loads. The carbon emissions associated with our natural gas use is approximately 94 per cent of the total building emissions. Although our priority climate mitigation actions are focused on our natural gas combustion reductions, there are many drivers to continue reducing purchased energy and other emission sources.

There has been an 18.8 per cent decrease in the carbon footprint since 2007. The table below shows the breakdown of emission and offset for 2019.

VCH GHG Emissions and Offsets for 2019		
As per the Directive issued March 31, 2020, each PSO will use their 2018 GHG		
Emissions as a placeholder for the purposes of their 2019 CNAR.		
Total Emissions (tCO ₂ e) ^{1,2,3}	40,672	
Total BioCO ₂ ⁴	43.4	
Total Offsets (tCO ₂ e)	40,629	
Offset Investment (\$25 per tCO ₂ e)	\$1,015,725	
[Total Offsets x \$25/tCO ₂ e]	(\$1,066,511 including GST)	

When reporting on absolute emissions, there is no consideration of weather impacts, portfolio growth, or other external drivers that affect emissions in a given reporting cycle. Depending on these independent variables, the year-over-year change in emissions may not fully reflect the mitigation efforts, emission avoidance projects and initiatives across the portfolio.

⁴ BioCO2 is reported in Total Emissions but not Total Offsets.





¹ Prior Year Adjustments (PYAs) are not applicable as emissions and offsets are based on 2018 alone.

² Total emissions and offset invoice amounts will be validated by CAS prior to distributing invoices.

³ Due to a variety of influences including historical data corrections and conversion factors, there may be minor discrepancies between data existing in CGRT vs SMARTTool.

Actions Taken To Reduce Our CO₂ Footprint

2019 ACTIONS

Stationary Emissions (Buildings)

Vancouver Coastal Health moved forward with multiple energy and emission mitigation projects that reduced energy consumption by 1,100,000 kilowatt hours and natural gas by 18,800 gigajoules; resulting in a carbon footprint reduction of over 800 tCO2e and significant operational savings. To support our long-term emission reduction and prioritize our efforts, multiple energy studies and planning efforts to embed sustainability practices were in progress or initiated in 2019.

In additional to our project specific emission reduction work, an increased effort to inform climate mitigation and adaptation priorities in new developments is progressing. In 2019, support for energy and climate-related actions for two new construction projects – in the Lions Gate Hospital Redevelopment and Pearson Dogwood Redevelopment – were undertaken and will continue towards construction.

Vancouver Coastal Health continues to work to embed sustainability across the organization by supporting staff engagement initiatives such as the GreenCare Community website, which provides tips and toolkits on energy reduction and other environmental initiatives. The Green+Leaders (G+L) program continues to train Vancouver Coastal Health staff as sustainability champions, along with the BC Hydro Energy Wise Network (EWN) Program. Other awareness initiatives, such as our Facilities Maintenance and Operations Engagement Strategy, are evolving to meet the operational needs of VCH.

Mobile Fleet Combustion (Fleet and other vehicles)

Vancouver Coastal Health is continually working to improve, promote and establish alternative transportation opportunities for Vancouver Coastal Health staff.

Supplies (Paper)

In collaboration with Health Shared Services British Columbia (Supply Chain), Vancouver Coastal Health has continued to make progress toward increasing the post-consumer recycled content in our paper, minimizing VCH's virgin paper purchasing. There are ongoing efforts across the VCH to assess how to minimize our paper purchases and develop a culture around how we use paper in our day-to-day workflow.

ONGOING ACTIONS

Vancouver Coastal Health will continue to act as leaders in environmental stewardship and emission mitigation in the following ways:

- Planning and implementing energy and emission reduction projects in our building portfolio by utilizing the Carbon Neutral Capital Program funds, internal capital funds, and utility incentive programs;
- Developing site energy infrastructure strategies and capital decision aids;
- Engaging with design engineers to ensure our new builds adopt energy efficient design principles;
- Continue to explore low emission energy supply options, opportunities for demand reduction, and leading technology applications;
- Engaging and educating our staff, via the G+L program, GreenCare Community and other opportunities





Feature Emission Reduction Project

Minimizing Environmental Impact through Facilities Collaboration at Vancouver General Hospital: Heat Recovery Chiller Project (Phase 2)

The Energy and Environmental Sustainability team, in close partnership with the VGH Facilities team, were able to deliver a progressive solution that considered both the operational requirements of the Vancouver General Hospital (VGH) chiller plant, while minimizing environmental impact.



Heat recovery chiller and pumps installed at Vancouver General Hospital.

The centralized chiller plant, serving multiple buildings on campus was in need of additional cooling capacity to meet the peak temperature on warm summer days and minimize the use of a low efficiency steam absorption chiller overall.

Previous energy studies identified that the absorption chiller consumed 43 per cent of the total chiller plant energy, even though it was only in operation 25 per cent of the time compared to the two other main chillers. Through extensive trend analysis, additional opportunities to optimize the operation and chiller sequencing of the remaining chiller plant were uncovered. In this complex environment, with a variety of acute care needs and heat generating equipment, there is a year round cooling load; the heat generated from this equipment and process was rejected through the cooling towers into the atmosphere. **Technology:** Heat Recovery Chiller (Heat Pump)

Natural Gas Avoidance: 14,500 GJ

GHG Reductions: 723 tonnes

Total Project Cost: \$1,163,020

Annual Energy and Emission Savings: >\$75,000 (net)

Co-Benefits:

- Increased cooling capacity
- Water Savings
- Reduced cooling tower maintenance





Several different heat recovery chiller configurations were assessed, and the installation of a second heat recovery chiller in parallel with the existing heat recovery chiller was selected. This captured the waste heat generated by the chilled water plant and converted it into thermal energy for the operational use in building heating. To utilize the full capacity of the new heat recovery chiller, additional waste heat will be captured by connecting the exhaust air glycol run around loop into the new system.

With a high level of project support and engagement from the VGH Facilities Maintenance and Operations team, the project design moved forward. This collaborative approach assisted with early risk identification and improved overall project coordination.

"This smart and low risk design is an ideal application of heat recovery technology. The complete design will support the peak cooling load and recover waste heat from the cooling process, improving the plants operation and minimizing this sites environmental impact." – Kori Jones, Energy and Emissions Manager, Lower Mainland Facilities Management

Considering the complexity of this cooling plant, a commissioning and optimization plan is in place to ensure the plant operates as designed over the shoulder seasons. The energy and emission savings will be monitored and verified going forward.

This project will result in an annual energy savings of 14,500 GJ, annual cost saving of \$75,380 in energy savings, and will mitigate 723 tCO2e each year.





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 <u>*Climate Change Accountability Act*</u> and the <u>Carbon Neutral Government Regulation</u>.

Due to the COVID-19 pandemic, the following <u>Directive</u> 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) <u>website</u> 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 <u>Carbon.Neutral@gov.bc.ca</u> 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	 The final, signed version of the CNAR (or Small Emitters Form) must be submitted by email to: <u>Carbon.Neutral@gov.bc.ca</u>
June 30, 2020*	 Ministry of Environment and Climate Change Strategy must post a final CNAR for each organization on the BC Government's CNG <u>website</u> and each PSO is encouraged to post the report on their website. The <u>CNAR Survey</u> (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*	Clean Government Reporting Tool (CGRT) Data Entry must be completed for the 2019 reporting year.

	*Deadline extended from April 30, 2020.
Oct 15, 2020*	 Self-Certification checklist must be completed, signed and submitted by email to: <u>Carbon.Neutral@gov.bc.ca</u>. *Deadline extended from May 15, 2020.

*See the <u>Carbon Neutral Government – Program Requirements website</u> 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:
Kori Jones
Contact Email:
kori.jones@vch.ca
Organization Name:
Vacouver Coastal Health
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:
Health (H)

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)

VCH has a regularly updated Strategic energy management plan.

VCH is planning to reduce electrical energy consumption by 1.2 gigawatt hours and natural gas energy consumption by 3,600 gigajoules this fiscal year in alignment with the project funnel. The portfolio energy use intensity (EUI) is targeted to be redued by 15 percent by 2020 compared to the 2007 baseline.

VCH has a target to reduce absolute GHG emissions by 25 percent by 2020 compared to the 2007 baseline. The absolute inscope GHG emissions intensity reduction targets are 30 percent by 2020. These emission targets are highly dependent on the low carbon electrification of our new buildings and the ability to shift the design of major projects to maximize heat recovery potential and integrate energy infrastructure at a systems level, removing the project silos.

Over the long term (6-10 years)

The portfolio energy use intensity (EUI) is targeted to be reduced by 25 percent by 2030 compared to the 2007 baseline.

VCH is planning reduce absolute GHG emissions by 40 percent by 2030 compared to the 2007 baseline. The absolute inscope GHG emissions intensity reduction target 50 percent by 2030. These emission targets are highly dependent on the low carbon electrification of our new buildings and the ability to shift the design of major projects to maximize heat recovery potential and integrate energy infrastructure at a systems level, removing the project silos.

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

There is a continuous flow of energy audits and studies moving ahead each fiscal year in aligment with organization priorities.

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

We don't track the per cent of building portfolio that has an energy audit completed each year, the audit may be at a system or building level depending on the organization priorities and largest opportunities.

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

There are no specific building retrofit goals as this depends on capital project timelines, our ability to influence or support, the outcome and business case development from our energy studies, and the ability to achieve external funding. The aim to drive option analyses and influence projects to make ongoing energy and emission improvements.

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

We don't track the per cent of building portfolio that has an energy audit completed each year, the audit may be at a system or building level depending on the organization priorities and largest opportunities.

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

We don't track the per cent of building portfolio that has an energy audit completed each year, the audit may be at a system or building level depending on the organization priorities and largest opportunities.

There is an ongoing project funnel developed for minor renovations but often the disruptive nature of this work does not translate into low cost or "easy to implement" due to disruption of clinical services and infection control requirements during construction in healthcare.

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

We don't track the per cent of building portfolio that has an energy audit completed each year, the audit may be at a system or building level depending on the organization priorities and largest opportunities.

There is an ongoing project funnel developed for major retrofits, due to disruption of clinical services and infection control requirements during construction in healthcare we often need to coordiate with other capital proejcts to ensure minimal impact on patient care.

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.)

We don't track the per cent of building portfolio that has an energy audit completed each year, the audit may be at a system or building level depending on the organization priorities and largest opportunities.

There is an ongoing project funnel developed for major retrofits, due to disruption of clinical services and infection control requirements during construction in healthcare we often need to coordiate with other capital proejcts to ensure minimal impact on patient care.

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

There is an ongoing retrocommissioning effort at our core sites that is largely driven by the foundation provided by the BC Hydro Custom Optimization Program. The retrocommissioning effort, along with increased training, in coordination with our Facility Maintenance and Operations teams is a consistent part of our energy and emission planning.

Strategies for expanding sub-metering architecture and long term building contro ls on major sites is a planned focus area; resource and funding dependant.

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

We don't track the per cent of building portfolio that has an energy audit completed each year, the audit may be at a system or building level depending on the organization priorities and largest opportunities. There is constant flow of recommissioning occurring each year anm the use of automatic fault detection is influence how we proceed with this work.

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.

No

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

Baseline development in progress for major cooling equipment.

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

None

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

None

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

N/A

Other actions? Please describe briefly:

An effort to build alliances and develop stakeholder networks is a growing part of our teams role. With the clear health and environment links we recognize that we need to leverage our clinical and populations health's team work that has emission reduction benefits.

Education and empowerment from our Green plus Leader volunteer network is strong and continually creating awareness of climate change and impacts .

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?

No

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)

The only criteria for fleet purchases is cost, no consideration of emissions or other environmental impacts.

Over the long term (6-10 years)

The only criteria for fleet purchases is cost, no consideration of emissions or other environmental impacts.

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

```
Electric Vehicle - EV - (e.g., Nissan Leaf, Chevy Bolt)
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0

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"Plug In" Electric Vehicle – PHEV (e.g., plug-in Prius, Chevy Volt)
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0

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Hybrid vehicle - HEV - non "Plug In"- (e.g., Toyota Highlander Hybrid)
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0

Hydrogen fuel cell vehicle

0

Natural	gas/pro	pane

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?

The only criteria for fleet purchases is cost, no cons ideration of emissions or other environmental impacts.

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?
6
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
0
How many level 3 stations (if any) are specifically for your fleet vehicles?

now many level 3 stations (if any) are specifically for your lieer ver	10162 :
As defined as Level 3 stations only your organization's fleet vehicles ma	y use

0

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

Level 2?			
0			
Level 3?			
0			

How many level 2 stations (if any) were installed specifically for your fleet vehicles? As defined in the previous section

0

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.)

We are currently working towards installing charging stations on a one site this year as part of a Carbon Neutral Captial Program project.

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. ³/₄ tonne pick-up truck, transport trucks)

Light duty vehicles (LDVs)

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

0

"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

      1
```

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

atural Gas/propane	
as/diesel	
3	

Heavy duty vehicles (HDV)

Electric Vehicles – EV

0

"Plug In" Electric Vehicle – PHEV

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

Hydrogen fuel cell vehicles

0

Natural Gas/propane
0
Gas/diesel
11

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 Energy and Environmental Sustainability Team is working with PHSA Supply Chain and other LMHO stakeholders to determine the appropriate route to change all or the majority of primary paper purchases to 30PCR by 2025.

Over the long term (6-10 years)

The Energy and Environmental Sustainability Team is working with PHSA Supply Chain and other LMHO stakeholders to determine the appropriate route to change all or the majority of primary paper purchases to 50-100PCR by 2025.

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

Yes

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

No

Other 2019 actions, please specify

Through the Green+Leaders staff engagement and behaviour change program, volunteers were supplied with Paperless meeting toolkits to encourage their colleagues to reduce paper use. There are 75 trained Green+Leaders within Vancouver Coastal Health.

We plan to continue to raise awareness of the importance of emissions reductions from paper supplies through the Green+Leaders behaviour change program. More specifically, we plan to explore a paper strategy and associated campaign to encourage staff to take action and reduce paper consumption in healthcare.