2020 Climate Change Accountability Report

Skeena River – Ashley Ellerbeck, Northern Health

MAY 31, 2021

Arzan Balsara
Energy Specialist
Rosalynn St. Pierre
Manager, Energy & Environmental Sustainability

northern health
the northern way of caring

Executive Summary

Cathy Ulrich, President and Chief Executive Officer

Northern Health is pleased to submit our new 2020 Climate Change Accountability Report to communicate on the progress and actions underway to reduce our carbon emissions. This past year has seen many new challenges and opportunities. There were challenges responding to the COVID-19 pandemic, however, we also realized opportunities that allowed us to make great strides in our energy management and environmental sustainability work. Being responsible stewards by reducing our greenhouse gas emissions to improve our future climate, aligns with our top strategic priority of Healthy People in Healthy Communities.

The COVID-19 pandemic affected all aspects of Northern Health operations immensely. The way that facilities operated in response to the pandemic affected energy use in some ways that competed with our carbon reduction goals, and in some ways helped with energy conservation. Overall for 2020, we saw an approximate 2.6% increase in carbon emissions and we will purchase approximately 22,600 tonnes of carbon offsets at a cost of $595,000.

Under the CleanBC Plan, Northern Health received enhanced funding for Carbon Neutral Capital Projects in 2020. This allowed us to initiate six energy projects that are projected to save 390 tonnes of CO_2 equivalents (tCO_2e) annually, equating to approximately 1.7% reduction annually in our overall emissions. As part of the 2020 energy project portfolio, we continued work at our St. John Hospital in Vanderhoof with a heat recovery system that is projected to reduce the hospital's emissions by almost 50%. A further five capital energy projects are planned for 2021 that have the potential to save over 200 tCO_2e per year. An additional benefit to these energy projects is increased redundancy and reliability for our facilities and enabling our buildings to be more resilient to changing future climate.

Another highlight to our work towards our climate change accountability is that we brought on two new, internal, full time, team members to our Energy & Environmental Sustainability portfolio.

As we continue to respond to the COVID-19 pandemic, and adapt to our changing world, it is important that we pay close attention to how our operations impact our carbon footprint. We must continue to carry out innovative projects and initiatives that will help mitigate climate change impacts and lay the foundation for ongoing greenhouse gas reductions. Northern Health remains committed to sustainable actions and leaving a healthy environment for the future populations of Northern BC.

May 31, 2021
Cathy Ulrich
President and CEO, Northern Health

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Declaration Statement

This Climate Change Accountability Report for the period January 1, 2020 to December 31, 2020 summarizes our emissions profile, the total offsets to reach net-zero emissions, the actions Northern Health has taken in 2020 to reduce our greenhouse gas emissions, and our plans to continue reducing emissions in 2021 and beyond.

Retirement of Offsets

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, Northern Health is responsible for arranging the retirement of the offset obligation reported in Table 1 for the 2020 calendar year, along with any adjustments reported for past calendar years (if applicable). The Ministry of Environment and Climate Change Strategy (the Ministry) ensures that these offsets are retired on Northern Health's behalf, and Northern Health remunerates the Ministry in an amount equal to $25 per tonne of offsets retired on its behalf plus GST.

Table 1. Northern Health 2020 Emissions and Offset Summary Table

Northern Health 2020 GHG Emissions and Offsets		
Total Emissions	22,902	tCO_2e
Total $BioCO_2$	30	tCO_2e
Total Offsets	22,872	tCO_2e
Offsets Adjustment	-224	tCO_2e
Grand Total Offsets to be Retired for the 2020 Reporting Year	22,648	tCO_2e
Offset Investment ($25 per tCO_2e + GST)	$594,510	

2020 Greenhouse Gas Emissions

Northern Health reports its organizational carbon emissions based on guidelines provided by the Carbon Neutral Government Regulation (CNGR) and the Climate Action Secretariat (CAS).

Greenhouse gases (GHGs) from various sources have been converted to metric tonnes of carbon dioxide equivalent (tCO_2e) for comparison. Figure 1 below summarizes the breakdown of our 2020 GHG emissions by source. Our total carbon footprint offset in 2020 was 21,920 tCO_2e.

Stationary fuel consumption accounted for 93% of our GHG emissions and electricity consumption contributed 3%. Vehicle fleet accounted for 3% of our GHG emissions and paper accounted for 1%.

Breakdown of GHG emissions by source:

- Fuel + Electricity: 21,847 tCO_2e
- Fleet: 696 tCO_2e
- Paper: 29 tCO_2e

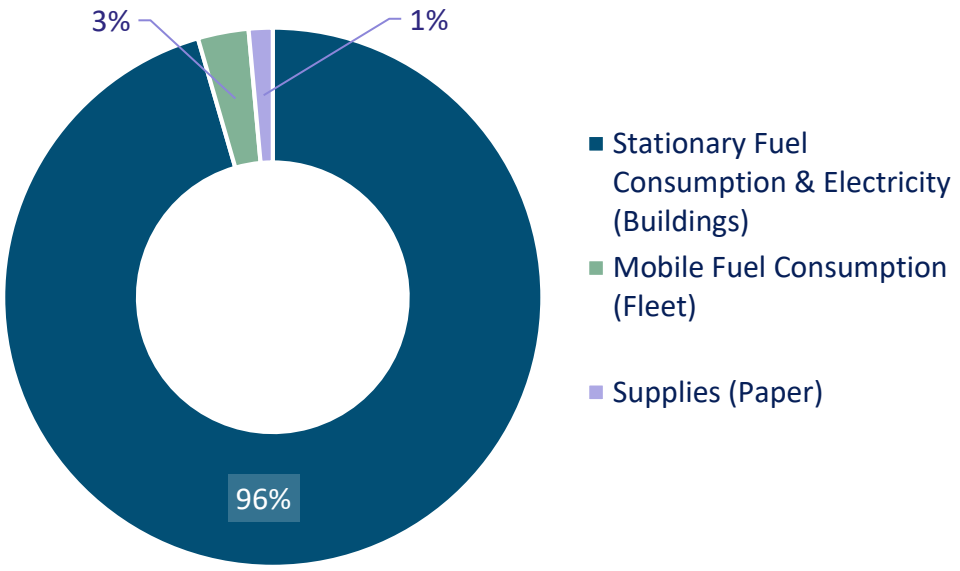


Figure 1. 2020 Northern Health GHG Emissions by Source

Greenhouse Gas Reduction Actions

Northern Health's strategies to reduce greenhouse gas emissions are detailed in our annual Strategic Energy Management Plan (SEMP). The SEMP is developed by the Energy & Environmental Sustainability team with involvement from Capital Planning, Facilities Maintenance, and Support Services. The SEMP is evaluated by a third party for its alignment in key focus areas such as commitment, situational analysis, and actions.

Commitment

We show our commitment to reducing greenhouse gas emissions a number of ways.

1. Set carbon reduction goals and targets
   Our target is to reduce electricity consumption by 500,000 kWh year over year, and fossil fuel consumption by 4,000 GJ year over year. This works out to roughly a 1% reduction in energy use each year.
2. Allocate dedicated resources towards energy management and environmental sustainability
   Northern Health internalized the Manager, Energy & Environmental Sustainability and the Energy Specialist positions in 2020, after 10 years of contracting these positions out. This commitment to having full time, permanent resources dedicated to Energy & Environmental Sustainability will allow Northern Health to plan carbon reduction actions more strategically.
3. Observe our Energy & Environmental Sustainability policy
   Align our operations to our carbon reduction goals.

Situational Analysis

In order to improve, we need to measure and analyze key performance indicators (KPIs) related to energy use, building performance, energy project performance, and waste generation. Collecting these KPIs is an important aspect of our work that guides our actions and informs our decisions around greenhouse gas reduction projects and initiatives.

Actions

Buildings

Northern Health currently owns and operates over 300,000 m^2 of clinic, acute care, and long term care floor space. We work to reduce greenhouse gas emissions from our buildings by using our full allocation of Carbon Neutral Capital Project (CNCP) funds each year. CNCP funds are used towards projects that lower building greenhouse gas emissions.

Lakes District Hospital, Burns Lake 2015
AME Group, 2021

The types of CNCP energy projects that were pursued in 2020 included:

- Heating boiler upgrades with high efficiency condensing boilers
- Upgrades to domestic hot water systems that took advantage of on demand heating,
- Heat recovery and heat pump technology
- Integrated fault detection and diagnostic software
- LED lighting upgrades

Lakes District Hospital, Burns Lake 2015
Infrastructure BC, 2021

In 2020, approximately 10% of our sites received minor energy retrofits such as caulking, lighting, adding insulation, etc. Another approximately 10% of our sites received major or deep retrofits,. Major retrofits include replacing windows, doors, equipment such as boilers, etc., and deep retrofits include replacing roofs, replacing heating, ventilation, and heat recovery etc.

No new buildings were completed in 2020, so we have no updates to our LEED gold portfolio to report this year. Additionally, as with previous years, no refrigerant gases category and refilling volumes were recorded.

The following projects are highlighted in this report for their excellent contribution to Northern Health's carbon emission targets.

St. John Hospital, Vanderhoof – Heat Pump

Condensing boilers
St. John Hospital, Vanderhoof

Heat pump
St. John Hospital, Vanderhoof

St. John Hospital in Vanderhoof received five new condensing boilers in 2019 along with pumps, piping and duct work to support heat recovery coils and reheat coils. In 2020 a new air to water heat pump was added to take heat from air handling exhaust, releasing heat into the low temperature heating loop for air handling pre heat coils. This allows the use of large natural gas boilers to be offloaded in low load and shoulder seasons.

This project is expected to save the hospital:

- **50%** of its greenhouse gas emissions (408 tCO_2e per year)
- **$100,000** per year in energy costs
- **7,000 GJ** in equivalent natural gas usage

Integrated Fault Detection & Diagnostics (IFDD)

University Hospital of Northern BC located in Prince George is Northern Health's largest hospital and was selected as a good candidate to optimize the building system controls through Integrated Fault Detection and Diagnostic (IFDD) software. This project also incorporates CO_2 and temperature based occupancy sensors to help inform the control strategies. The IFDD programs will allow building operators to quickly find alarms and faults in the building systems that could lead to wasted energy if not corrected. The IFDD programs also assist the operators in troubleshooting alarms and faults to correct over heated or over cooled zones.

Screenshots from the IFDD program at Univeristy Hospital of Northern BC, 2021

This project is expected to save the hospital:

- **104 tCO_2e** of greenhouse gas emissions per year
- **$30,000** per year in energy costs
- **2,500 GJ** in equivalent natural gas usage

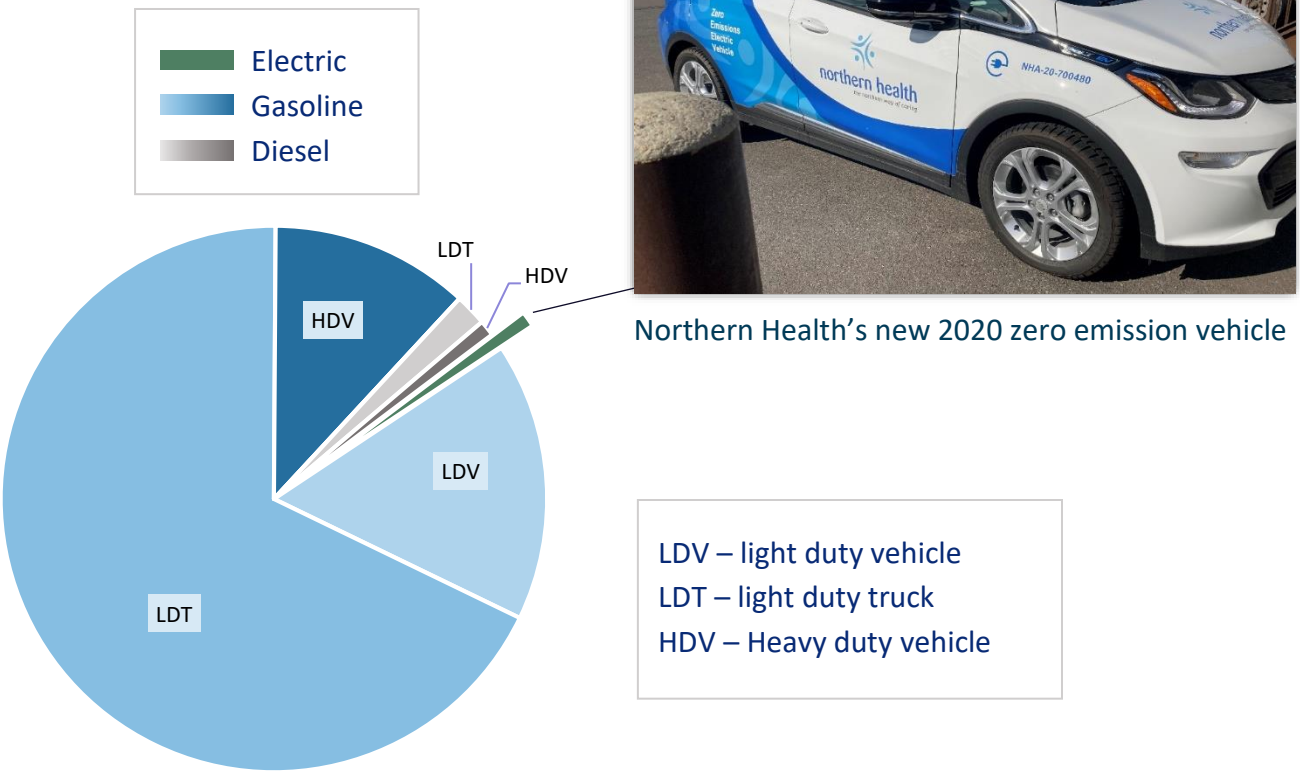
The payback of this project is expected to be under 6 years

Vehicle Fleet

Northern Health's vehicle fleet contains over 200 vehicles, two of which are fully electric. We have two level 2 charging stations installed at our facilities. Fleet emissions account for approximately 3% of Northern Health's total carbon emissions, at just under 700 tCO_2e emitted in 2020.

In 2020, we reduced our fuel consumption by approximately 43,000 L compared to 2019. This equates to roughly 100 tCO_2e of carbon emission reduction from our fleet.

Currently we do not use E100 in our gas vehicles or B100 in our diesel vehicles.



Northern Health's new 2020 zero emission vehicle

Figure 2. Breakdown of Northern Health's fleet by vehicle and fuel type

Paper/Green Procurement

In 2020, Northern Health participated in drafting a briefing note for Provincial Health Services Authority Supply Chain on the benefit of purchasing post consumer (PCR) paper. Northern Health also participated in the PHSA Supply Chain RFP for Paper and Stationary, which included a specification for 30% and 100% PCR paper.

Northern Health is also giving some attention to green procurement. Starting in late 2019, Northern Health, Interior Health, Island Health, Fraser Health, and Vancouver Coastal Health reached out to support and encourage PHSA to embed environmental criteria in their processes for future procurements. PHSA is responsible for managing the supply chain for the health authorities. This initiative is known as Environmentally Preferable Purchasing and our goal is to implement formal processes in our Supply Chain to weigh products and services against environmental criteria.

Waste

Northern Health makes an effort to recycle waste streams as feasibility permits and the resources available in the communities. In 2020, Northern Health implemented a sharps recycling program in over a dozen of their sites. It is estimated that this program will divert approximately 17 tonnes of plastic from the landfills.

Greenhouse Gas Reduction Plan

Buildings

Northern Health will continue to identify retrofit projects at our sites that will reduce greenhouse gas emissions. We will continue to use our full allocation of Carbon Neutral Capital funds to implement these energy projects. In 2021, we are planning more boiler and domestic hot water upgrades, as well as more heat recovery and re-commissioning, which would ensure that our building heating and cooling systems are interfacing as efficiently as possible.

Haida Gwaii Hospital & Health Centre 2016
BKL Consultants Ltd, 2021.

We will also work with FortisBC and BC Hydro to use their incentive programs to help with upgrading HVAC systems and lighting. We plan to increase our participation in the BC Hydro/FortisBC Continuous Optimization program to conserve energy through building operation and controls. We will continue to participate in the BC Hydro Energy Wise Program by implementing campaigns to increase awareness of energy saving strategies for facility operations and support services staff. When seeking new building retrofit opportunities, we conduct building energy analysis and consult

our Facility Maintenance & Operations team to determine which sites and building systems would gain the most from retrofits. We also carry out a number of energy studies through a vast network of energy consultants to help identify new opportunities as well.

Vehicle Fleet

The Northern Health region covers almost two-thirds of BC's geographic area, including the northern most parts of the province. Due to the terrain, climate, and distance between our sites, Northern Health is cognizant of the challenges that face fleet electrification. That being said, options are being strategically explored to continue to electrify our fleet and add more charging stations at our facilities. As fleet vehicles retire, zero emission vehicles will be considered for replacement. As funding comes available, charging infrastructure feasibility studies will be carried out and charging infrastructure to support fleet electrification will be installed.

Northern Health region

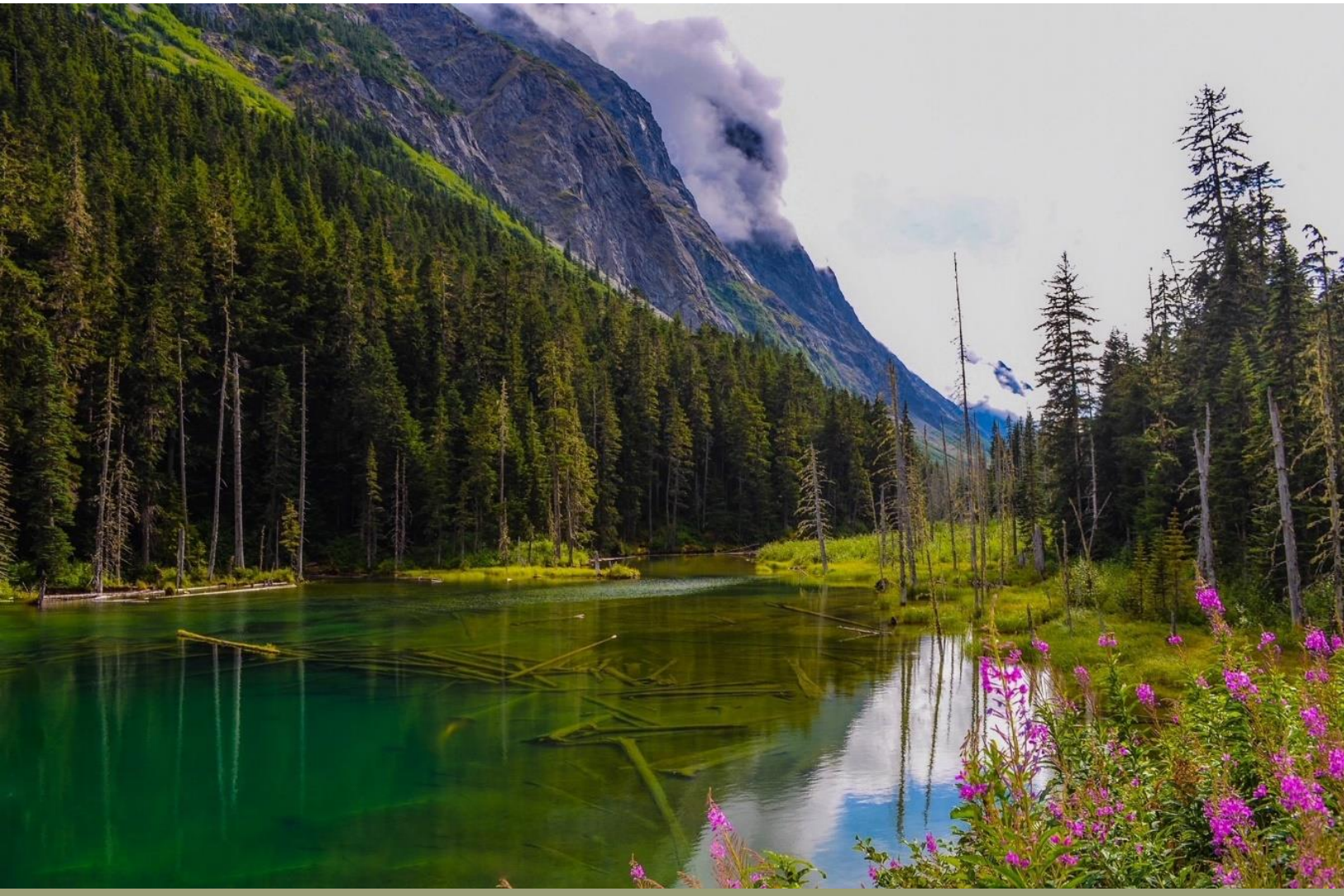
Paper/Green Procurement

Starting in 2021, Northern Health will partner with the other BC Health Authorities to work with PHSA to further Supply Chain's processes to embed environmental criteria in future procurements. The goal of this environmentally-preferable purchasing initiative is to implement formal processes in our Supply Chain to weigh products and services against environmental criteria. Some awareness building progress has been made with our Supply Chain partner, however, this is a longer-term systems change initiative requiring the endorsement of multiple health authorities and PHSA Supply Chain leadership.

Northern Health will continue to work with the other health authorities in 2021 to encourage and support PHSA Supply Chain to work with suppliers and vendors to identify post consumer (PCR) paper options at reasonable prices. We will continue to work with PHSA Supply Chain to find a way to formally increase volume of PCR paper in inventory. Northern Health will also support user PCR pilots and behaviour change campaigns as needed and feasible.

Waste

Northern Health continues to develop and build our Green Working Group initiative to partner with internal teams, including physicians, support staff and facilities maintenance to identify opportunities to either reduce, recycle or sustainably handle waste at our facilities.



Telkwa Pass Trail – Jennifer Klassen, Northern Health

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Submitted date: 2021-05-11 13:33:56 Pacific Daylight Time

Climate Change Accountability Report Survey - 2020

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

This survey is divided into two parts:

> **Part 1** - Will be made public on the Climate Action Secretariat (CAS) website after June 30, 2021; however, it will not be appended directly to each individual PSO CCAR 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 CCAR.
>
> **Part 2** - Will NOT be posted on the Climate Action Secretariat website. Information you provide in this section is important and will be used to help CAS staff with planning for emissions reduction and climate change adaptation initiatives, as well as inform high-level reporting in the annual provincial Climate Change Accountability Report. 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: Climate Change Accountability Report Survey – Broader Public Sector 2020". You can then continue responding at another time or email the hyperlink to a colleague to complete remaining section(s).

April 30, 2021	• **Clean Government Reporting Tool (CGRT) Data Entry** must be completed for the 2020 reporting year.
May 14, 2021	• **Self-Certification checklist** must be completed, signed and submitted by email to: Carbon.Neutral@gov.bc.ca.
May 31, 2021	• The final, signed version of the **CCAR** (or **Small Emitters Form**) must be submitted by email to: Carbon.Neutral@gov.bc.ca. • The **CCAR Survey** (optional for Small Emitters) must be completed and submitted online.
June 30, 2021	• Ministry of Environment and Climate Change Strategy must post a final CCAR for each organization on the BC Government's CNG website. PSOs are encouraged to post their own report on their website. • All offset invoice payments must be submitted to CAS.

*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 Climate Change Accountability report (CCAR).

Please note, Part 1 of your CCAR survey will be made public on the CAS website.

Contact Name:

Rosalynn St. Pierre

Contact Email:

Rosalynn.Stpierre@northernhealth.ca

Organization Name:

Northern Health Authority

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 2020 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 (1-5 years)

Our goal year over year is to reduce electricity consumption by 500,000 kWh and fuel consumption by 4,000 GJ for an average of 1% savings in energy consumption each year. We will continue to use our full allocation of Carbon Neutral Capital Project funds to improve our building HVAC system energy efficiency. We will continue to work with FortisBC and BC Hydro to use their incentive programs to help with upgrading HVAC systems and lighting. We will increase participation in the BC Hydro/FortisBC Continuous Optimization program to conserve energy through building operation and controls. We will continue to participate in the BC Hydro Energy Wise Program by implementing campaigns to increase awareness of energy saving techniques to facility operations staff.

Over the long term (6-10 years)

We will continue to implement the above measure to achieve the goal of reducing carbon emissions by 40% from 2007 levels by the year 2030.

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

Consult with our Facility Maintenance & Operations team to determine which sites and building systems are in need of retrofits. Perform energy studies to determine Energy Conservation Measures and work with Capital Planning to determine which Energy Conservation Measures are worth undertaking based on simple payback and funding sources.

Please refer to the definitions listed below, along with Natural Resource Canada's information guide on Retrofitting when completing the following three questions.

- Minor retrofits (e.g. low cost, easy to implement measures including caulking, lighting, adding roof insulation, etc.)
- Major retrofits (e.g. replacing windows and doors, equipment replacement such as boilers, etc.)
- Deep retrofits (e.g. replacing roof, replacing heating, ventilation and air-conditioning system with a renewable technology like ground-source heat pump, etc.)

What percentage on average of your building portfolio is retrofitted each year on Minor Retrofits?
Response must be written as an integer.

10

What percentage on average of your building portfolio is retrofitted each year on Major Retrofits?
Response must be written as an integer.

8

What percentage on average of your building portfolio is retrofitted each year on Deep Retrofits?
Response must be written as an integer.

2

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, and HFC R-507.

No

How many newly constructed buildings received at least LEED Gold certification in 2020?

0

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

0

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

No new buildings completed in 2020

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

Actions taken by your organization in 2020 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 (1-5 years)

As fleet vehicles retire, consider zero emission vehicles as replacements. As funding comes available, install charging infrastructure to support fleet electrification. Options are being explored to covert some of the fleet to electric or hybrid options.

How many electric vehicle charging stations (Level 2 and Level 3) for fleet does your organization have as of December 31, 2020?

Level 2:

2

Level 3:

0

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

Considering a charging station feasibility study in 2021.

Please refer to the definitions provided below when completing the following table.

- Light duty vehicles (LDVs) are designated primarily for transport of passengers and have a GVWR < 3,900 kg (includes sedans, hatchbacks).
- 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 and have a GVWR < 3,900 kg (includes SUVs, vans, and trucks).
- Heavy duty vehicles (HDV) includes vehicles with a GVWR > 3,900 kg (e.g. ¾ ton pickup truck, buses, etc.).

- Battery Electric (BEV) is defined under the Zero Emission Vehicles Regulation that is propelled solely by an electric motor that is powered solely by a battery that is charged solely by an external electricity source.
- Plug-In Electric Hybrid (PHEV) is defined under the Zero Emission Vehicles Regulation as a zero-emission vehicle that can be propelled solely by an electric motor with a battery that is capable of being charged by an external electricity source.
- Hybrid Electric Vehicle (HEV), or hybrids, use both a conventional internal combustion engine and an electric motor. Hybrids have battery packs that are charged with electricity generated by the vehicle. They can't be plugged in to recharge. The typical hybrid offers fuel savings and CO_2 reductions of 20-40 percent over gasoline-only vehicles (Natural Resources Canada).
- Fuel Cell Electric Vehicle (FCEV) is defined under the Zero Emission Vehicles Regulation as a zero-emission vehicle that is propelled solely by an electric motor that is powered solely by a hydrogen fuel cell.
- Gas vehicles include those that use gasoline/ethanol blends, including 5% (E5), 15% (E15), 50% (E50) and 100% (E100) blends.
- Diesel vehicles include those that use biodiesel blends, including 5% (B5), 20% (B20) and 100% (B100).

Please indicate the total number of vehicles that are currently in your organization's fleet by fuel type and vehicle category.

LDV

Battery Electric
2

Plug-In Electric Hybrid
0

Hybrid Electric Vehicle
0

Fuel Cell Electric Vehicle
0

Natural Gas or Propane
0

Gas
35

Diesel
0

LDT

Battery Electric
0

Plug-In Electric Hybrid
0

Hybrid Electric Vehicle
0

Fuel Cell Electric Vehicle
0

Natural Gas or Propane
0

Gas
144

Diesel
4

HDV

Battery Electric
0

Plug-In Electric Hybrid
0

Hybrid Electric Vehicle
0

Fuel Cell Electric Vehicle
0

Natural Gas or Propane
0

Gas
25

Diesel
2

If, in the above table, you indicated that your organization's fleet includes vehicles that use Gas, do any of these vehicles use E100?

No

If, in the above table, you indicated that your organization's fleet includes vehicles that use Diesel, do any of these vehicles use B100?

No

If your organization purchased gas or diesel vehicles in 2020, can you briefly explain why vehicles from the other categories were not chosen?

Insufficient funds

Actions taken by your organization in 2020 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):

Encourage electronic transmission of documents, encourage electronic signing of documents. Discourage printing unless necessary. In 2020, NH participated in drafting a briefing note for Provincial Health Services Authority (PHSA) Supply Chain on the benefit of purchasing post consumer (PCR) paper. NH also participated in the PHSA Supply Chain RfP for Paper and Stationary, which included a specification for 30% and 100% PCR paper. NH will continue to work with the other health authorities in 2021 to encourage and support PHSA Supply Chain to work with suppliers and vendors to identify PCR options at a reasonable prices. NH will continue to work with PHSA Supply Chain to find a way to formally increase volume of PCR paper in inventory. NH will support user PCR pilots and behavior change campaigns as needed/feasible.

Over the long term (6-10 years):

Continue to support and encourage the above mentioned medium term actions.

Does your organization have an awareness campaign focused on reducing office paper use?

No

Has your organization purchased alternate source paper (bamboo, hemp, wheat, etc.)?

No

Does your organization use building energy management tools? If yes, please select any that apply.

Portfolio Manager ENERGY STAR

Other, please Specify
Internal energy tracking databases and Integrated Fault Detection and Diagnostic software

Other Sustainability Actions:

Please refer to the definitions provided below when completing the following table.

- Light duty vehicles (LDVs) are designated primarily for transport of passengers and have a GVWR < 3,900 kg (includes sedans, hatchbacks).
- 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 and have a GVWR < 3,900 kg (includes SUVs, vans, and trucks).
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- Hybrid Electric Vehicle (HEV), or hybrids, use both a conventional internal combustion engine and an electric motor. Hybrids have battery packs that are charged with electricity generated by the vehicle. They can't be plugged in to recharge. The typical hybrid offers fuel savings and CO_2 reductions of 20-40 percent over gasoline-only vehicles (Natural Resources Canada).
- Fuel Cell Electric Vehicle (FCEV) is defined under the Zero Emission Vehicles Regulation as a zero-emission vehicle that is propelled solely by an electric motor that is powered solely by a hydrogen fuel cell.

During 2020, did your organization have any of the following programs or initiatives to support sustainability?

A low-carbon business travel policy or travel reduction goal (low-carbon = lowest emission of greenhouse gas per kilometer per passenger)?

No

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?

Yes

Green procurement standards/policy for goods (e.g. office furniture, fleet, etc.)?

Yes

If you have indicated "Yes" to any of the previous three questions, please describe the policy and/or standards.

For diversion of waste, NH implemented a sharps recycling program in 2020. For green procurement, starting in late 2019, Northern Health, Interior Health, Island Health, Fraser Health, and Vancouver Coastal Health reached out to support and encourage PHSA to embed environmental criteria in their processes for future procurements. This initiative is known as Environmentally Preferable Purchasing (EPP) and our goal is to implement formal processes in our Supply Chain to weigh products and services against environmental criteria. Some awareness building progress has been made with our Supply Chain partner, however this is a longer-term systems change initiative requiring the endorsement of multiple health authorities and PHSA Supply Chain leadership.

Out of all the emission reduction projects your organization has undertaken in 2020, please describe the one action taken that resulted in, or is expected to result in, the greatest emissions reductions (this may be considered your "success story" that you may want to highlight within your 2020 CCAR):

The St. John Hospital in Vanderhoof was identified as one of our sites with the most potential for energy savings. In 2019, we started a major retrofit with adding in condensing boilers that would allow the boiler plant to run more efficiently in low load seasons. The addition of condensing boilers in 2019 enabled a deep retrofit in 2020 with installing an air to water heat pump that would recover heat from exhaust air, and dump the heat into air handling unit preheat coils. The net energy savings (electrical increase + natural gas decrease) of the heat pump addition is estimated at 825,000 ekWh or 3,000 eGJ per year. The combined net energy savings of both phases is estimated at 1,900,000 ekWh or 6,900 eGJ per year.

If possible, please include an approximate estimate of the expected emission reductions from the project (in tonnes CO2e and percentage reduction):

6,900 GJ per year.

Tonnes CO2e:

408

Percentage total CO2e reduction:

49%

What projects (“opportunities”) does your organization see as being most effective in leading to substantive reductions of emissions and increased energy efficiency? Please describe briefly.

Upgrading older, inefficient boiler systems, domestic hot water systems, and air handling systems. Pursue more heat recovery options where rational.

Stationary Sources Data:

What is the total amount of floor space (Gross Floor Area) in your organization (including occupied and unoccupied space)? (Please report in square metres)

305169

How many Full Time Equivalents (FTEs) in your organization are tasked with energy management and sustainability operations (i.e. focusing on reducing energy, water, waste, climate impacts from the operations)?

3

In the case of energy managers/advisors, does your organization receive support from BC Hydro/Fortis BC?

Yes

If yes, please explain:
Incentives, webinars, key account managers.