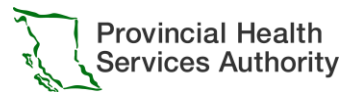


2022 PSO Climate Change Accountability Report

Provincial Health Services Authority



Carbon Neutral



Declaration Statement

This PSO Climate Change Accountability Report for the period January 1, 2022 to December 31, 2022 summarizes our greenhouse gas (GHG) emissions profile, the total offsets to reach net-zero emissions, the actions we have taken in 2022 to reduce our greenhouse gas emissions and our plans to continue reducing emissions in 2023 and beyond.

By June 30, 2023 Provincial Health Services Authority's final 2022 Climate Change Accountability Report will be posted to our website at bcgreencare.ca. Final Climate Change Accountability Reports will be also posted on the BC Government CNG [website](#) by June 30, 2023 to meet legislative requirements.

Retirement of Offsets Statement

In accordance with the requirements of the Climate Change Accountability Act and Carbon Neutral Government Regulation, Provincial Health Services Authority (**the Organization**) is responsible for arranging for the retirement of the offsets obligation reported above for the 2022 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.

Cover photo: BC Cancer – Victoria, located on 2410 Lee Avenue, Victoria, BC V8R 6V5

Executive Summary



David Byres, President & Chief Executive Officer

I am pleased to present the 13th annual Climate Change Accountability Report¹ that highlights the Provincial Health Services Authority's (PHSA) actions to reduce its carbon footprint, which are having a positive impact on planetary health.

At PHSA, we have continued to promote energy conservation, GHG emissions reduction, other aspects of environmental sustainability and climate adaptation and resilience through raising awareness, education and partnerships for both behavior and system change. As PHSA has focused on reducing our carbon footprint over the past several years, I am pleased to report that our efforts have reduced PHSA's operational impact on the natural environment, all while reducing operational costs. We appreciate the direct relationship between this care for the environment and the wellbeing of the patients, clients, families and communities we serve, province-wide. In this work of sustainability, we aim to serve in alignment with the Coast Salish teaching of Eyhh Slaxin, to be "good medicine" for all living things, including people, ecosystems, and the planet.

In 2022, PHSA had a carbon footprint offset of 19,202 tonnes of carbon dioxide equivalent (tCO₂e), which was offset at a total cost of \$504,053². This represents a decrease of 20 per cent from the carbon footprint reported in 2007, the base year. Considering PHSA has assumed responsibility for more programs, services and staff over the past 15 years, this decrease is significant. In 2022, we continued our carbon emission reduction efforts. We completed the implementation of a heat recovery system expansion at BC Children's and BC Women's campus. Heat recovery and carbon reduction projects were also completed at BC Cancer Research Institute, and BC Cancer centres in Victoria and Surrey. Another major heat recovery and energy upgrade project started at BC Cancer – Vancouver, which is anticipated to result in significant carbon emissions reduction for the site once completed and fully commissioned. In our day-to-day operations, we continue to take action and look for opportunities to reduce our carbon footprint associated in our buildings, fleet and other mobile equipment, as well as paper consumption, which are currently the three mandatory categories of our in-scope emissions. We have continued to enhance waste management, recycling and composting programs. We have implemented criteria to support environmentally preferable purchasing decisions. Through employee engagement campaigns, we have increased education and awareness opportunities for staff to encourage behaviour change, and climate resilience and adaptation. Through all of these actions and more, PHSA has been carbon neutral since 2010. This is good work that I hope we can all nurture and build upon for years to come.



I want to recognize PHSA's Energy and Carbon Management team who, as part of the Energy and Environmental Sustainability team, has worked closely with various groups across the organization to reduce emissions. We continue to prove that through collaborative efforts and building coalitions, we make meaningful steps towards creating low-carbon resilient health system at PHSA and make positive changes that ultimately help us restore and regenerate the interdependent health of people, place and planet – now and for future generations. I would like to recognize and thank all of our staff who support these continued efforts across the province.

Date: May 30, 2023

David Byres

President & Chief Executive Officer
Provincial Health Services Authority

¹ Formerly known as Carbon Neutral Action Report

² This amount is calculated based on PHSA's 2022 carbon footprint offset of 19,202 tCO₂e, using \$25 per tCO₂e, plus 5 per cent GST.

Our Emissions Profile

2022 GREENHOUSE GAS (GHG) EMISSIONS BREAKDOWN AND OFFSETS APPLIED TO BECOME CARBON NEUTRAL

PHSA reports its organizational carbon footprint based on guidance provided by B.C.'s Climate Change Accountability Act (CCAA), Carbon Neutral Government Regulation (CNGR) and the Climate Action Secretariat (CAS).

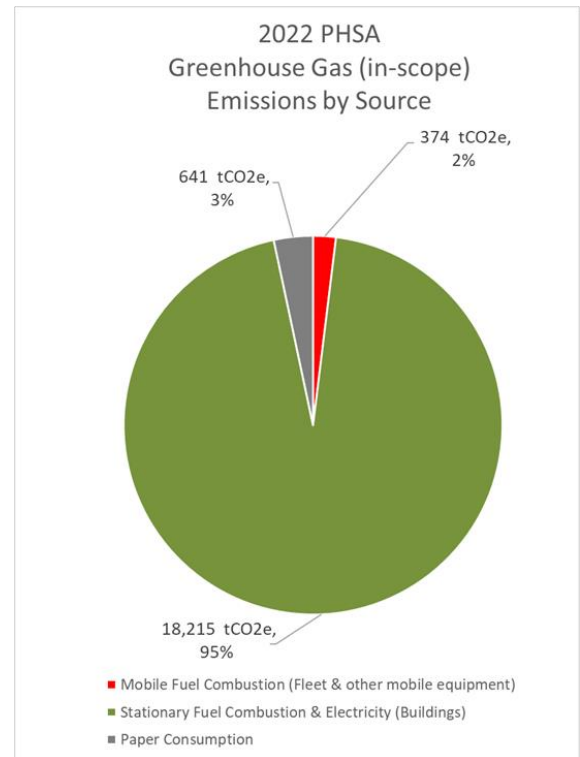
The CAS developed reporting guidance based on the Greenhouse Gas Protocol Corporate Standard. According to these guidelines, PHSA's carbon footprint is comprised of six different greenhouse gases, which are converted into a common metric of tonnes of carbon dioxide equivalent (tCO₂e). In scope carbon emissions are grouped in three main categories:

1. Stationary Fuel Combustion
2. Mobile Fuel Combustion
3. Paper Consumption

In 2022, PHSA's carbon footprint offset was 19,202 tonnes of carbon dioxide equivalent (tCO₂e)³. That represents a 20 per cent decrease in PHSA's carbon footprint offset since 2007.

Almost 95 per cent of PHSA's in-scope emissions are attributed to the building portfolio, and over 95 per cent of those emissions are associated with fossil fuel consumption.

To become carbon neutral in 2022, PHSA will purchase carbon offsets at a total cost of \$504,053 from the Ministry of Environment and Climate Change Strategy. This amount is calculated based on PHSA's 2022 carbon footprint offset of 19,202 tCO₂e, at \$25/ tonne CO₂e plus GST.



³ This figure excludes total BioCO₂ Emissions (no offset required). PHSA's total BioCO₂ Emissions in 2022 was 27 tCO₂e.

Provincial Health Services Authority 2022 GHG Emissions and Offsets Summary	
GHG Emissions for the period January 1 – December 31, 2022	
Total BioCO ₂	27
Total Emissions (tCO ₂ e)	19,230
Total Offsets (tCO ₂ e)	19,202
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO ₂ e)	0
Grand Total Offsets for the 2022 Reporting Year	
Grand Total Offsets to be Retired for 2022 Reporting Year (tCO ₂ e)	19,202
Offset Investment (\$)	\$ 480,050
[Total Purchased Carbon Offset +GST]	\$ 504,053

Notes for above table (provided by the Climate Action Secretariat):

- i. [Note, BioCO₂ is included in Total Emissions but not Total Offsets. For K-12 and post-secondary organizations, and BC Transit, Total Offsets will not equal Total Emissions minus Total BioCO₂ because offset-exempt emissions for buses are included within Total Emissions.
- ii. Emissions and offset investment amounts will be validated by CAS prior to distributing invoices.
- iii. You must round "Grand Total Offsets to be Retired" to a whole number (no decimal places) before multiplying by \$25 (e.g., 43.2 = 43, 43.5 = 44).]

CHANGES TO PROVINCIAL HEALTH SERVICES AUTHORITY'S PORTFOLIO

PHSA's usable facility space has increased 26.4 per cent since the 2007 base reporting year, which is largely due to the construction of the Teck Acute Care Centre, Red Fish Healing Centre, and an increase in leased spaces.

PHSA has controlled increases in facility space to accommodate increased staff by seeking opportunities to optimize existing space use while maintaining safety and efficiency.

BUILDINGS, FTE AND WEATHER	2007	2018	2019	2020	2021	2022
Distinct PHSA buildings	n/a	74	76	76	78	80
% Owned	n/a	72%	72%	72%	70%	66%
% Leased	n/a	28%	28%	28%	30%	34%
Usable square meters ¹	388,990	422,796	425,344	425,344	467,587	491,754
Full-time employee equivalents ²	5,491	11,435	11,928	12,119	12,977	13,459
Weather (summarized in Heating Degree Days) ³	2,870	2,720	2,844	2,759	2,875	2,936

Notes for above table:

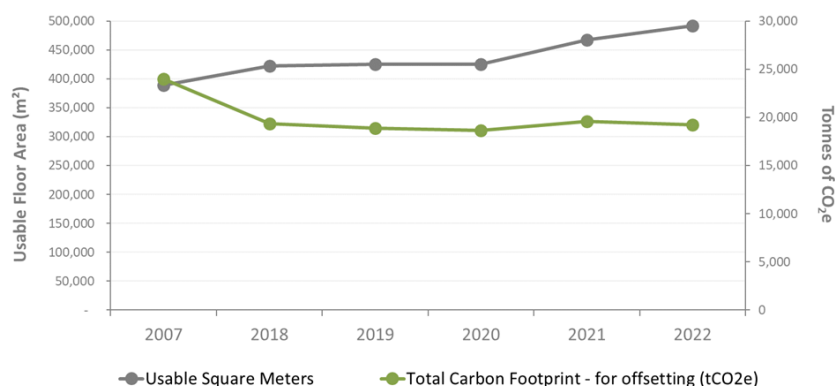
¹ Usable area excludes roof tops, interstitial spaces, and parking areas.

² Full-Time Employee data was provided by Health Employers Association of B.C. Full-Time Employee data include all designated groups reported in HSCIS and exclude affiliate employers and BCEHS employees. Full-Time Employee calculations are based on 1950 annual hours.

³ Heating Degree Days (HDD's) are based on YVR Airport data from Environment Canada and are intended to reflect the demand for heating. Although PHSA's facilities are located across B.C., the majority of buildings are in the metro Vancouver area, so HDD's for Vancouver were used.

Since 2007, PHSA's carbon footprint has decreased while usable floor area and staff have increased. As of 2022, emissions per full-time equivalent (1,427 kgCO₂e/FTE) have decreased by 67.4 per cent since 2007, and emissions per unit of floor area (39.05 kgCO₂e/m²) have decreased 36.7 per cent since 2007. The carbon emissions reported are not adjusted for changes in weather. Heating Degree Days (HDDs) is a metric designed to reflect the demand for energy required to heat a building. Emissions per HDD is a metric intended to summarize overall efficiency of delivering heating. PHSA's 2022 emissions per HDD (6,540 kgCO₂e/HDD) are almost 22 per cent lower than the baseline year. This speaks to the improved efficiency of providing heat in our buildings.

PHSA Usable Floor Area and Emissions (2007-2022)



Our Carbon Footprint (tCO ₂ e)		2007	2018	2019	2020	2021	2022
	Mobile fuel combustion (Fleet & other mobile equipment)	189	180	175	203	214	374
	Stationary fuel combustion & electricity (Buildings)	22,930	18,473	17,902	17,859	18,652	18,215
	Paper Consumption	891	703	791	617	726	641
	Total carbon footprint (tCO ₂ e)	24,010	19,356	18,868	18,679	19,592	19,230
	Total BioCO ₂ emissions (no offsets required) ^{1, 2}	-9	-14	-7	-8	-29	-27
	Total carbon footprint for offsetting (tCO ₂ e)	24,002	19,342	18,861	18,671	19,563	19,202
	Adjustments / Corrections	0	0	0	-498	-37	0
	Total Carbon Footprint - for offsetting after adjustments (tCO₂e)	24,002	19,342	18,861	18,173	19,526	19,202

\$	Purchased Carbon Offsets	\$ -	\$ 483,550	\$ 483,550	\$454,325	\$488,150	\$480,050
	Purchased Carbon Offsets +GST	\$ -	\$ 507,728	\$ 507,728	\$477,041	\$512,558	\$504,053

KPI's	Emissions per full-time employee (kgCO ₂ e/FTE)	4,371	1,691	1,581	1,500	1,505	1,427
	Emissions per facility space (kgCO ₂ e/m ²)	61.70	45.75	44.34	42.72	41.76	39.05
	Emissions per heating degree day (kgCO ₂ e/HDD)	8,363	7,111	6,632	6,587	6,792	6,540

Notes for above table:

¹ As outlined in the Carbon Neutral Government Regulation of the Climate Change Accountability Act, some emissions do not require offsets.

² It was estimated that Fugitive Emissions from cooling equipment comprise less than 0.01 per cent of PHSA's total emissions and for this reason, emissions from this source have been deemed out-of-scope and have not been included in our total greenhouse gas emissions profile.

Legislative Reporting Requirements

ACTIONS TAKEN to MINIMIZE EMISSIONS

Stationary Sources (buildings)

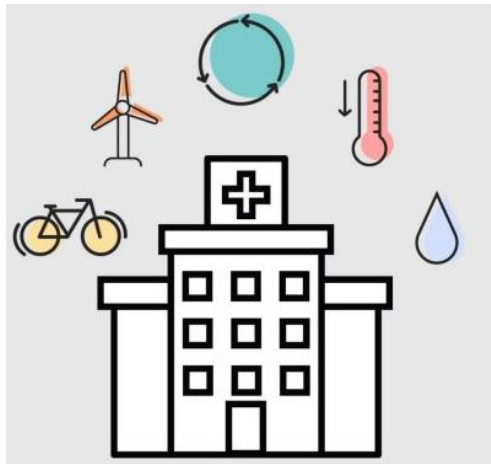
- **Continuous optimization:** PHSA completed the implementation phase of BC Hydro's Continuous Optimization Program at the Shaughnessy Building. Also, the investigation phase of the Continuous Optimization Program progressed for the Ambulatory Care Building at the BC Children's Hospital and BC Women's Hospital + Health Centre, and kick-started for two more buildings at the site.
- **Waste heat recovery and energy upgrades:** PHSA completed the implementation of a heat recovery system expansion that was originally installed as part of the Phase 3 Redevelopment project at BC Children's and BC Women's campus. Heat recovery and carbon reduction projects were also completed at BC Cancer Research Institute, and BC Cancer centres in Victoria and Surrey. Another major heat recovery and energy upgrade project started at BC Cancer – Vancouver, which is anticipated to result in a significant carbon emissions reduction for the site once completed and fully commissioned. Three lighting upgrades projects that were started in the previous year, got completed in 2022, one at the BC Cancer Research Institute, one at BC Cancer centre in Surrey and one at the Shaughnessy Building on the BC Children's and BC Women's campus. Multiple energy studies have also commenced and progressed towards completion for various buildings in the PHSA portfolio, with the goal of identifying further opportunities for reducing energy use and carbon emissions in our buildings, while enhancing occupants' comfort and satisfaction with the indoor environmental quality.
- **Facilities Maintenance and Operations staff engagement:** The PHSA energy and carbon management team has continued to build an engagement strategy with Facilities Maintenance and Operations (FMO) departments at BC Children's and BC Women's and BC Cancer sites. One of the key initiatives started in 2022, involved a series of workshops with FMO site leads to discuss the outcomes of the organization's energy management assessment and seek input regarding how to further enhance collaboration opportunities between the FMO team and the Energy and Carbon Management team at PHSA.
- **Guidelines for Low Carbon Resilience and Environmental Sustainability in new construction projects:** PHSA's energy and carbon management team has been actively contributing to the continuous improvement of the Energy & Environmental Sustainability team's Guidelines for Low Carbon Resilience and Environmental Sustainability (LCRES) for new construction and major renovation projects in health care, with the intent of ensuring these projects are built to the highest standard of energy efficiency and carbon management within financial constraints. These guidelines are aligned with the provincial mandates and policies with regards to environmental sustainability, carbon emissions reduction and climate risk management and resilience. The previous version of these guidelines was used for the Red Fish Healing Centre for Mental Health & Addiction which was completed in 2021.

The updated LCRES Guidelines are used in Slokan Site Redevelopment⁴ project's business plan and subsequent phases of the project delivery cycle.

- **Leadership and Innovation:** The Energy and Environmental Sustainability team continued to promote energy conservation, GHG emissions reduction and other aspects of environmental sustainability and climate adaptation and resilience through raising awareness, education and partnerships that lead to behavior change and system change. PHSA GreenCare network members, PHSA Green+Leaders and other PHSA staff actively participated in several initiatives, including a campaign called "Green at Home , Green at Work"⁵ that was initiated by PHSA's Energy & Carbon Management team in 2022 as part of the Energy Wise Network program⁶. Through participation in this campaign, PHSA staff received education information about the small but smart choices they can make at

home and at workplace to reduce their carbon footprint and combat climate change and had the opportunity to win green and healthy lifestyle prizes.

GreenCare⁷ is a network that unites efforts across the B.C. health-care community to advance our health-care system toward environmentally sustainable and resilient care for the health of people, place and planet. Green+Leaders⁸ are health-care staff engaged in advancing sustainability practices within the health system. Green+Leaders encourage environmentally sustainable behaviour, improve existing processes, and help create an overall culture of environmental health and wellness. Every year, they make a significant contribution to the improvement of PHSA's environmental performance.



4 <http://www.bcchildrens.ca/about/slokan>

5 <https://bcgreencare.ca/a-winning-strategy-for-sustainability/>

6 https://www.bchydro.com/powersmart/business/programs/workplace-conservation.html?utm_source=direct&utm_medium=redirect&utm_content=energywise

7 <https://bcgreencare.ca/>

8 <https://bcgreencare.ca/take-action/>

Mobile Sources (fleet and other vehicles)

- PHSA encourages alternative modes of transportation to gas/diesel single occupancy vehicles. Inter-hospital shuttles are offered free of charge as a commuting option among several acute care sites. Shuttles are available to staff, patients and visitors. These shuttles reduce/eliminate the need for staff to rely on their own vehicles to travel between sites. In 2022, ridership for two PHSA sites was:
 - 49,964 total rides to Children's and Women's Hospital
 - 2,242 total rides to the BC Cancer – Vancouver and BC Cancer Research Centre Vancouver
 - 398 total rides to the BC Center for Disease Control
- PHSA also encourages active and clean modes of transportation and has three bike rooms/cages, three showers, and capacity for the locking/storage of 510 bikes across its core sites. PHSA actively promotes Go By Bike Week, by hosting education stations at BC Children's Hospital and BC Women's Hospital + Health Centre. The Energy and Environmental Sustainability team, along with other departments including Facilities Maintenance and Operations, and Integrated Protection Services continue to work collaboratively on initiatives and projects that encourage active and clean modes of transportation across PHSA sites.
- PHSA is developing plans to install new Level 2 charging stations for electric vehicles. Currently PHSA has 7 Level 2 charging stations and 13 Level 1 charging stations available, primarily for PHSA employees.
- PHSA staff from Facilities Maintenance and Operations, Energy and Environmental Sustainability and Integrated Protection Services joined others in a regional steering committee for electric vehicle charging station planning and potential standardization.
- Highlights from PHSA's work on sustainable transport include:
 - Launching a 50% transit incentive for Translink users⁹
 - Completing a cycling assessment at BC Children's Hospital and BC Women's Hospital + Health Centre
- Recommendations for fleet vehicle EV charging, as well as emergency vehicle (including ambulance) charging has been included in the updated Guidelines for Low Carbon Resilience and Environmental Sustainability for health-care new Construction¹⁰.



Paper Consumption

- The efforts towards identifying the benefits of purchasing post-consumer recycled (PCR) paper as opposed to virgin paper continued in 2022. In partnership with other B.C. health authorities, PHSA continued to work with suppliers and vendors to identify PCR paper options at reasonable prices and identify ways to formally increase the volume of PCR paper in inventory with the aim of reducing environmental impacts such as carbon emissions, water consumption and air pollution associated with paper supplies.

⁹ Average monthly participation in transit incentive is 2,153.

¹⁰ <https://bcgreencare.ca/resource/guidelines/>

Public Sector Climate Leadership

ACTIONS TAKEN to ENHANCE CLIMATE RESILIENCE AND SUSTAINABILITY

Climate Risk Management

- Embedded climate resilience into major capital projects, including the Slocan Site Redevelopment Project, by providing guidance and support to project teams and consultants throughout the project phase delivery cycle.
- Initiated a portfolio-level climate hazard exposure screen for 12 PHSA facilities across the province to identify areas of vulnerability and prioritize actions.
- Completed energy studies for BC Cancer - Surrey and BC Cancer - Kelowna using future climate projections to add a climate resilience lens to energy and carbon management.
- Recommissioned the cooling plant at BC Cancer - Vancouver to increase overall cooling capacity and improve resilience against extreme heat events.
- Completed the heat recovery and energy upgrades project at BC Cancer – Victoria which enhances climate resilience of the site alongside other project's objectives.
- Collaborated with Facilities Management, public health teams, and Health Emergency Management BC to continue Seasonal Readiness planning activities, ensuring a coordinated approach to communications and actions before, during, and after extreme weather events.
- Participated in the Ministry of Health's From Risk to Resilience initiative, which included a focused examination of the extreme heat, wildfire, and flood events of 2021.
- Hosted a Green+Leaders lunch and learn to raise awareness of the potential impacts of climate change on the health of long-term care facility occupants.



Other Sustainability Initiatives

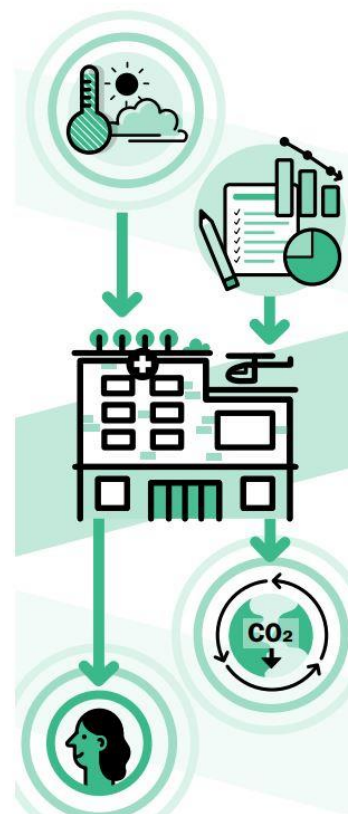
- In 2022, PHSA continued to provide training, resources, toolkits, recognition and support to Green+Leaders, GreenCare network members and various green teams. In 2022, 38 new Green+Leaders joined the community, a five fold increase from the previous year, for a total of 114 active staff, and a total of 300 staff who've joined the program since 2009.
- PHSA Continues to have active green committees and green teams, led by Green+Leaders and staff at various sites. These committees explore and implement a broad variety of sustainability initiatives.

- The BC Cancer Planetary Health Unit, established in 2022, is a clinician-led initiative that provides education and resources to engage and inspire clinicians with the goal of establishing low waste, low carbon health care across BC Cancer.
- PHSA staff are also active members of the GreenCare network, receiving news, health organization updates, and participating in learning events. 2022 highlights include 71 new members that joined the network, the launch of the new GreenCare newsletter, and 7 learning events.
- In alignment and active collaboration with the PHSA communications team, GreenCare and Green+Leaders resources and stories are also shared via PHSA's internal communication channels. These efforts continue to advance sustainability practices and celebrate PHSA staff successes.
- In 2022, 10 grants, totaling approximately \$10,000 were offered to PHSA staff through the Green+Leaders program, in partnership with the Health Promotion Initiatives Fund (HPIF) team. Successful projects demonstrated strategies to advance and embed sustainability in the workplace, while simultaneously improving staff well-being.
- PHSA continues to support workplace leadership opportunities that motivate and empower staff to take action. In 2022, the Green+Leaders program facilitated 8 orientation sessions, where 32 new PHSA Green+Leaders received education, resources and tools to take sustainable action. 7 networking sessions were also offered, and 16 communications materials, such as newsletters and bulletins, were shared with staff.



- A total of 773 PHSA staff engaged with sustainability by taking the annual GreenCare Survey that seeks to understand staff perspectives, familiarity with, and actions related to planetary health, climate change, and environmental sustainability. We learned that for 2022:
 - 62% of respondents agree or strongly agree that they know what 'planetary health' means.
 - 93% of respondents agree or strongly agree that climate change impacts their health.
 - 14% of respondents own an EV (approximately a 1% increase from 2021 survey data).
 - 41% of respondents reported that they plan to own a EV within the next 5 years.
 - There was a 5.43% increase in public transit commuting compared to 2021 survey data.
 - There was an overall 2.71% increase in sustainable commuting options.
 - There was a 3% decrease in commuting by single occupancy gas or diesel vehicles compared to 2021 survey data.
 - 22% of PHSA staff responses indicated that they increased their transit use in response to the increased subsidy.

- PHSA staff have access to Sustainable Transportation education and resources opportunities, through the Sustainable Transportation Series, and through transportation resources available on the GreenCare Website.
- PHSA facilities comply with a standardized recycling program which includes mixed containers, mixed paper, organic waste and batteries. Depending on collection logistics, some sites may also participate in recycling programs for expanded polystyrene, pallet wrap, printer cartridges, and mattresses, scrap metal, lighting and other materials. Acute care facilities have a target of reaching 40% waste diversion by 2030 and non-acute care facilities have a target of 60%.
- From January 1 to December 31, 2022, a total of 759 PHSA staff completed the online Waste Management Basics Learning Module available on the Learning Hub, an increase of 45 over 2021. This module familiarizes learners with the impacts of improper waste management and how to discard different types of waste appropriately.

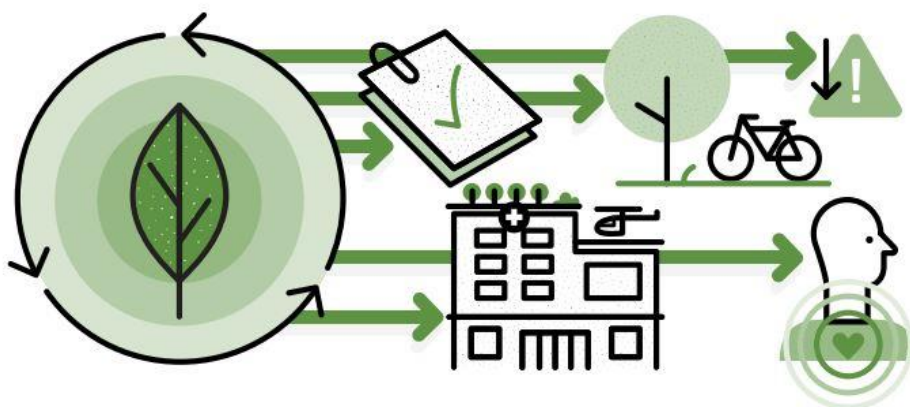


- Through a collaborative study between BC Cancer – Radiology department, the FMO, Energy and Carbon Management teams at PHSA and BC Hydro, a quantitative assessment of CT scanner's energy use and cost savings through overnight and weekend power shutdown was completed and the results were published in an article¹¹ in the Canadian Association of Radiologists journal.
- Weighted environmental sustainability questions were added to a Request for Proposal (RfP) for disposable gowns, drapes, and surgical packs. This provincial RfP would impact all healthcare sites that provide surgical services. Weighted questions focused on environmental sustainability, climate adaptation and energy performance were added to a Request for Proposal for mobile MRI and CT Scanners for the first time. The content of this RfP will inform future purchasing of MRI and CT Scanners across the province, and was already shared with many in the field of Radiology, through an article¹² published in the prestigious Radiology journal and other means.
- The Circular Health Care Opportunities Guide was launched on the GreenCare website, a resource that outlines key interventions health authorities can take to reduce waste.

¹¹ <https://pubmed.ncbi.nlm.nih.gov/36421009/>

¹² <https://pubs.rsna.org/doi/10.1148/radiol.230229>

- The GreenCare website provides a hub for environmental sustainability-related resources and opportunities and is centered on engaging PHSA and other B.C. health care staff with environmental sustainability and resilience in the workplace. Our Resources section of the website that presents a variety of reports, case studies and toolkits is the most visited section of the website. We have observed increased engagement and actions taken by the users once on the site. The website¹³ provides PHSA staff with tools and resources to make environmental improvements at their worksite, and contribute to health and wellness in several areas. Success stories are also shared, as inspiration for other staff. In 2022, we averaged 1,250 users a month.
- PHSA supports professional development through workshops and educational sessions sponsored by BC Hydro and Fortis BC.
- PHSA Supply Chain continued to work toward a Sustainable Procurement Policy in collaboration with all B.C. health authorities. PHSA Supply Chain provides all elements of supply chain management including contracting and materials management on behalf of all six B.C. health authorities. An initiative called Environmentally Preferable Purchasing has been in action since late 2019 within PHSA and in partnership with the other B.C. health authorities. The goal of this initiative is implementing formal processes in supply chain to weigh products and services against environmental criteria.



¹³ <https://bcgreencare.ca/>

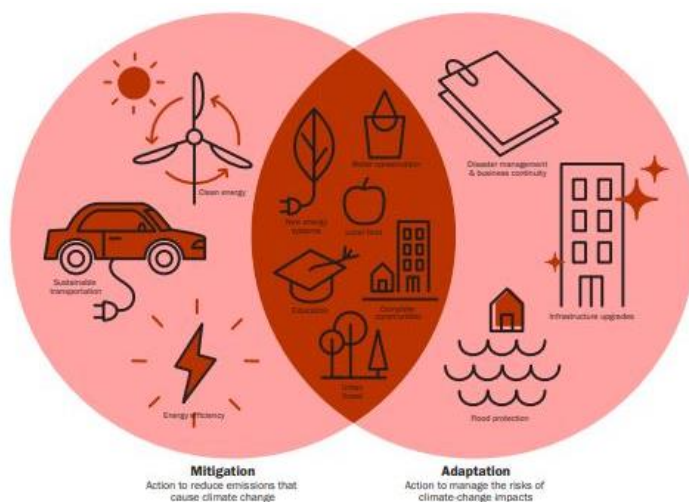
PLANS TO CONTINUE REDUCING EMISSIONS

PHSA plans to continue reducing GHG emissions and energy in the following ways:

- **Optimize our existing buildings:** Developing strategic plans and implementing energy efficiency and carbon emissions reduction retrofit projects in our existing building portfolio by utilizing the Carbon Neutral Capital Program (CNCP) as our primary funding source.
- **Low carbon and energy efficient new construction:** Developing project-specific targets and key performance indicators focused on energy use and carbon emissions to ensure that our new buildings are low carbon and energy efficient.
- **Managing climate risks:** Engaging stakeholders in the process of identifying climate change hazards and their cascading impacts on the health system, and developing effective measures to manage climate risks to our facilities and our broader communities of care.
- **Systemic change:** Developing and continuously improving standards, guidelines and processes to embed low carbon resilience and environmental sustainability principles further into standard operations at PHSA.
- **Behavior change and staff engagement:** Continue to promote energy conservation, GHG emissions reduction and other aspects of environmental sustainability and climate adaptation and resilience through raising awareness, education, staff engagement and partnerships that lead to behavior change and system change.
- **Innovation and demonstration:** Utilizing Green Revolving Fund¹⁴ and incentive opportunities offered by the utilities companies to support

ongoing investment in studies, investigations and operating projects focused on carbon reduction and energy efficiency. In addition, learning about new standards, guidelines, technologies and building design principles relevant to low carbon resilience and environmental sustainability and introducing them to sites and staff. As well as identifying opportunities for implementing and demonstrating innovations that bring value to the organization.

- **Align with our core mandate:** continue to push for and achieve low carbon resilience and environmental sustainability innovations and operational changes that result in tangible environmental and health outcomes. PHSA will engage in a collaborative approach and build partnerships that help achieving the ultimate goal of restoring and regenerating the interdependent health of people, place and planet — now and for future generations.



¹⁴ Green Revolving Fund (GRF) is a “restricted operating funds” allocated to energy and carbon emissions management. PHSA has shown leadership and commitment by choosing to participate in a BC Hydro sponsored GRF initiative to increase PHSA’s ability to realize energy cost savings and reduce Greenhouse Gas (GHG) emissions.

The GRF agreement between BC Hydro and PHSA was signed in 2015 and was established for a 5-year term. Since 2015, PHSA has continued to provide GRF for energy and carbon emissions management across the organization.

SUCCESS STORIES

BC Cancer- Continuous Progress towards Low Carbon Resilience

In 2022, we continued our efforts towards carbon emission reduction and enhancing climate resilience across multiple BC Cancer sites. In collaboration with various stakeholders such as BC Cancer site leads, physicians groups and facilities maintenance and operation staff, the Energy and Environmental Sustainability team have been working on identifying and implementing opportunities to reduce health care's environmental footprint, enhance the resilience of our facilities to climate change impacts, and further improve the health of individuals and our communities.

In 2022, the heat recovery and carbon reduction projects got completed at BC Cancer Research Institute, and BC Cancer centres in Victoria and Surrey. Another major heat recovery and energy upgrade project started at BC Cancer – Vancouver, which is anticipated to result in significant carbon emissions reduction for the site once completed and fully commissioned.

The mechanical system upgrades implemented at BC Cancer in Victoria, is expected to reduce the site's carbon emissions by around 80 per cent, while improving comfort and safety of the building occupants and providing more cooling capacity during warm months. Since the completion of the projects, noticeable results have been observed. Currently, further fine tuning of the system is underway to ensure the building operations and performance are aligned with the design intents of the project.

Another highlight of 2022 is that a major energy upgrades project initiated in BC Cancer – Vancouver to reduce the use of fossil fuels at the site and address operational challenges. Once completed and fully commissioned, this project is anticipated to result in about 13,000 GJ of natural gas savings through implementation of heat recovery and building control optimization strategies. In 2022, another project was initiated in BC Cancer in Vancouver with the aim of increasing climate resilience and cooling capacity at the site. In



Vancouver, severe heat waves have become a normal part of summer, compromising comfort and care for those in the health-care system. To address this issue at BC Cancer – Vancouver, the Facilities Management and Operations (FMO) team and the PHSA's Energy & Carbon Management team collaborated on implementing a project to enhance the operations of the cooling plant in the building and therefore, increasing cooling capacity and climate resilience for this facility.

In 2022, we also started several studies across BC Cancer sites to identify more opportunities for reducing carbon emissions, enhancing climate resilience, providing electric vehicles charging infrastructure, and renewable energy generations at our facilities. Once completed and verified, these studies will become the starting point of future implementation projects that will help us progress towards a low-carbon resilient health system.