

2023 GOVERNMENT OF BRITISH COLUMBIA CLIMATE PROGRESS REPORT

JUNE 2024

THIS REPORT FULFILS THE REQUIREMENT TO PREPARE AND
MAKE PUBLIC A CLIMATE CHANGE ACCOUNTABILITY
REPORT FOR THE PROVINCIAL GOVERNMENT



Ministry of
Environment and
Climate Change Strategy

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1. INTRODUCTION

The 2023 reporting year marks the 14th consecutive year that B.C. has achieved carbon neutral operations across its public sector, and B.C. continues to be the longest running carbon neutral jurisdiction in North America. British Columbians can be proud their province displays leadership in advancing climate action through the Carbon Neutral Government program.

The 2023 Government of British Columbia Climate Progress Report fulfils the provincial government’s reporting requirements under section 7.1 of the [Climate Change Accountability Act](#) for the 2023 calendar year, where “provincial government” represents a consolidation of provincial ministries and independent offices, but not Crown Corporations, health authorities, school districts, or universities and colleges.

This report provides an overview of the following for the provincial government:

- Greenhouse gas (GHG) emissions from buildings, vehicles, office paper, and business travel;
- Offsets retired in relation to emissions produced to achieve carbon neutrality;
- Actions taken in 2023 to minimize emissions; and
- Plans to minimize future emissions.

The Climate Action Secretariat works with the Ministry of Citizens’ Services (CITZ) and other ministries to collect data and information in the preparation of this report. CITZ is responsible for providing a range of services that support the management of provincial government buildings, vehicles, information technology and procurement. The actions and plans in this report are largely provided by CITZ and supplemented by details from other ministries.

2. PROVINCIAL GOVERNMENT EMISSIONS SUMMARY

In [CleanBC](#) and the [CleanBC Roadmap to 2030](#), the Province of British Columbia set public sector emissions reduction targets for 2030 of 50% for buildings and 40% for fleets relative to the 2010 baseline, and laid out a pathway to achieve these ambitious targets.

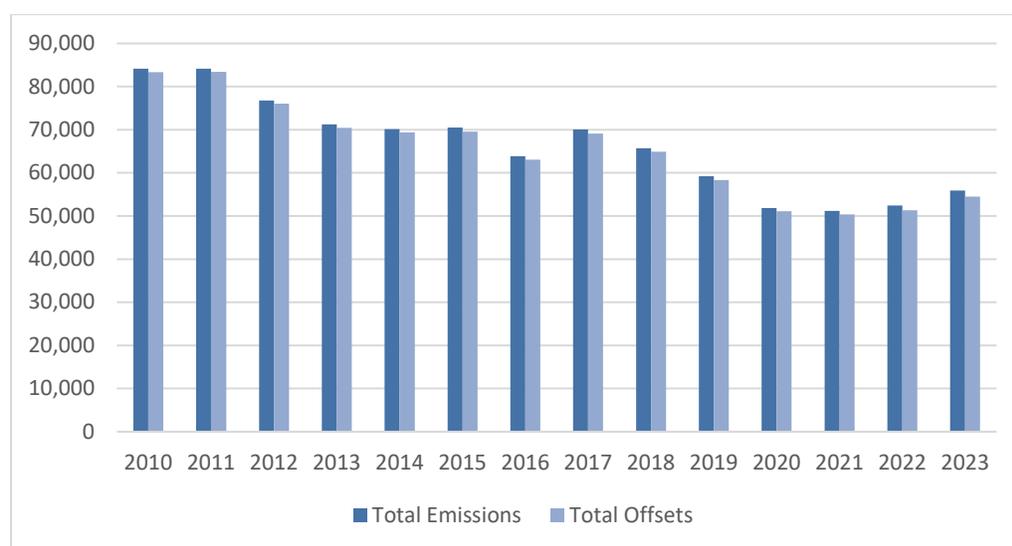
In 2023, provincial government’s overall emissions decreased by 34% but increased by 6.7% from 2022 levels (Table 1, Figure 1). The biogenic emissions increased from 817 tCO₂e in 2010 to 1,435 tCO₂e in 2023 (Table 1), contributing to the progress to the CleanBC targets. Biogenic sources come from renewable material, such as wood waste or renewable natural gas.

Buildings have historically been the largest source of emissions, followed by fleet vehicles, business travel and office paper (Figure 2).

Table 1. Provincial Government Emissions and Offsets for 2023
(2010 baseline year shown for comparison purposes)

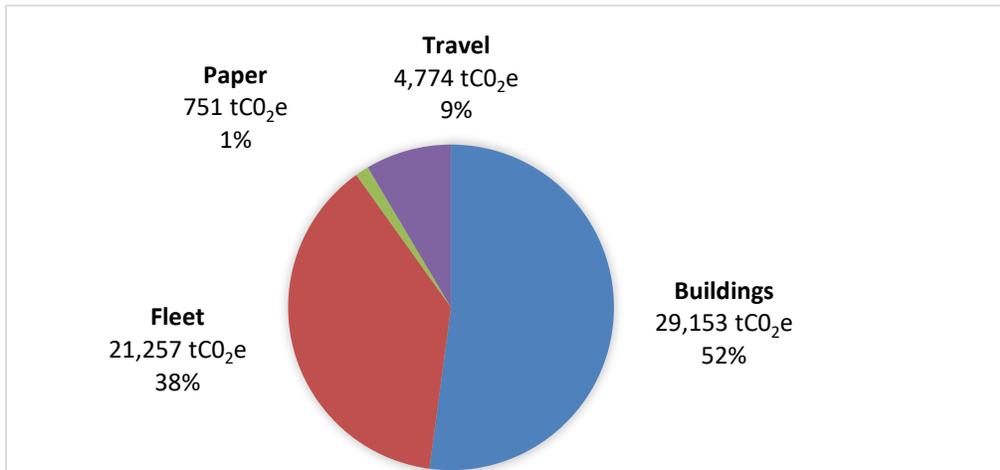
	2010 ^a	2023
Total Emissions (tCO₂e)	84,150	55,935
Biogenic Emissions (tBioCO₂)	817	1,435
Total fossil fuel Emissions	83,333	54,499
Total Offsets (tCO₂e)	83,333	54,499

Figure 1: Change in Provincial Government Total GHG Emissions (tCO₂e)



^a In late 2023, the Climate Action Secretariat revised the emission factor for stationary natural gas and electricity to reflect an update to the emissions intensity of natural gas in the National Inventory Report (NIR), and a shift from the gross import model to the net import model as calculated for the [Greenhouse Gas Industrial Reporting and Control Act](#). This update has resulted in adjusted baseline figures from the previous years' reports. Emission factors are coefficients used to calculate the GHGs of an activity, fuel combustion or product. For more information on the NIR changes for natural gas, refer to the [Technical overview of changes to British Columbia's oil and gas methane emissions - Canada.ca](#)

Figure 2: 2023 Provincial Government Total GHG Emissions by Source



2.1 Summary of Provincial Government Emissions by Source

2023 Building Emissions

In 2023, building emissions accounted for 52% of all provincial government emissions. Emissions were 44% lower than the 2010 baseline year (Figure 3) and decreased by 4.9% from 2022 levels (Table 2). The provincial government is on track to meet the 50% CleanBC reduction target by 2030.

CITZ has several building upgrade and retrofit projects underway and expects building emissions to decrease further upon completion of the projects.

2023 Vehicle Fleet Emissions

Fleet emissions in 2023 were 6.5% higher compared to 2010 and 19% higher compared to 2022 levels. The overall fuel consumption increased in 2023, driven mainly by Ministry of Forests fire suppression activities throughout the long and intense 2023 fire season.

Fleet emissions remain significantly off track of achieving the 40% CleanBC reduction target by 2030.

2023 Office Paper Emissions

Many ministries continue to use less paper by transitioning to paperless or reduced paper business processes. Office paper emissions in 2023 were 61% lower compared to the 2010 baseline and 2.5% lower compared to 2022 levels. The reductions are from a reduction in the amount of paper used, not because of a shift to paper types with a lower carbon footprint, such as recycled paper.

2023 Business Travel Emissions

Business travel emissions in 2023 were 54% lower compared to the 2010 baseline but increased 53% compared to 2022 levels. The increase is likely due to the ending of most COVID-19 restrictions in 2022. Business travel emissions remain 24% lower than pre-pandemic levels. Ministries continued to upgrade technologies to support virtual meetings and create an alternative to travel.

Figure 3: Change in Provincial Government Total GHG Emissions by Source (tCO₂e) 2010 to 2023

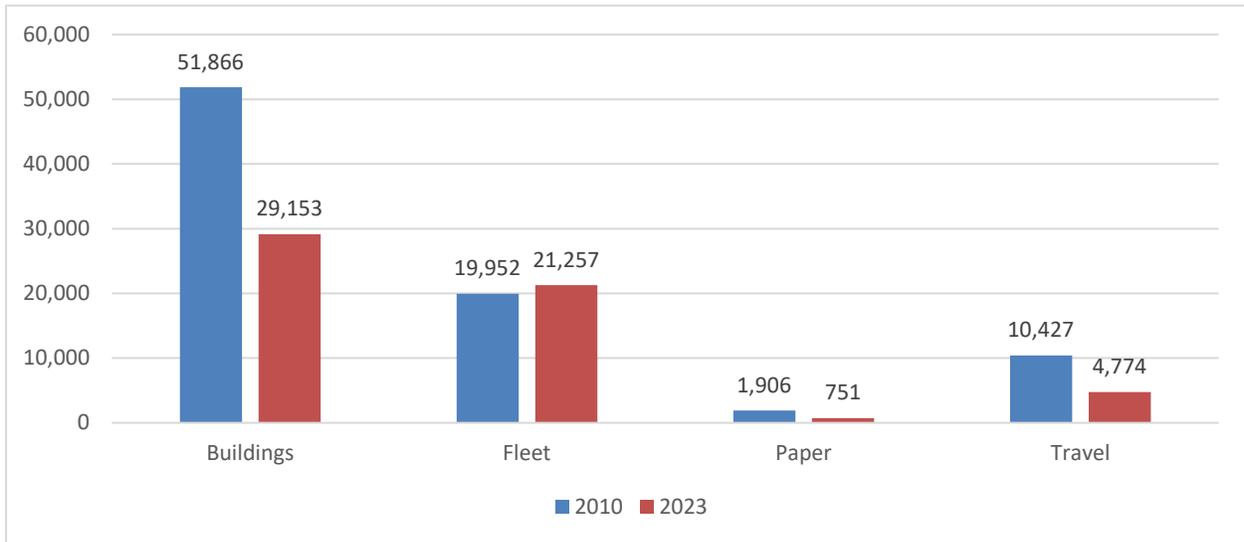


Table 2: Change in Provincial Government Total Emissions by Source (tCO₂e) 2022 to 2023

Source	2022 Emissions (tCO ₂ e)	2023 Emissions (tCO ₂ e)	% Change from 2022	Net Change from 2022 (tCO ₂ e)
Buildings	30,639	29,153	-4.9%	-1,486
Fleet	17,865	21,257	19%	3,392
Paper	770	751	-2.5%	-19
Travel	3,129	4,774	52.6%	1,645
TOTAL Emissions	52,403	55,935	6.7%	3,532

3. BUILDING EMISSIONS

CITZ manages a portfolio of over 1,500 owned, leased, and managed facilities across the province, spanning over 1.5 million m² of space occupied by provincial government and the broader public sector. This report only provides information about provincial government buildings and does not include buildings occupied by the broader public sector.

Provincial government buildings cover a variety of archetypes such as offices, courthouses, correctional facilities, warehouses and labs, among others.

3.1 Emission Reduction Actions in 2023 – Buildings

Energy management efforts have been long-standing in CITZ and its predecessor organizations. In 2023, building emissions were 44% lower than the 2010 baseline. Ongoing energy management efforts continue to reduce building emissions, and provincial government buildings are on track to reach the CleanBC 50% reduction target by 2030.

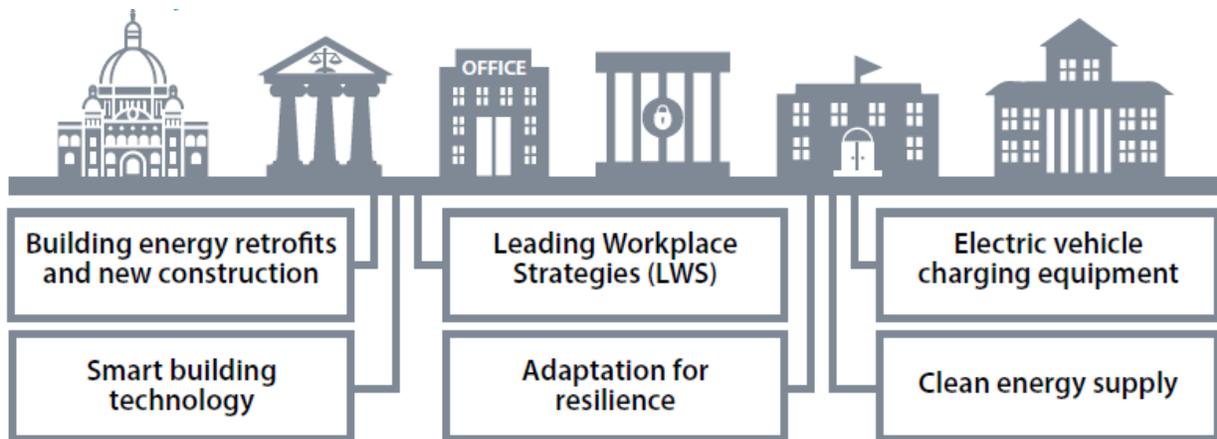
In 2019, CITZ announced the [CleanBC Government Buildings Program](#), a five-year strategy with a triple bottom line objective to reduce building energy consumption and associated emissions, along with

improving occupant comfort and returns on investment. The program is driven by the following energy consumption and emissions reduction goals:

- Net-zero energy consumption at provincial buildings by 2050;
- CleanBC plan’s target to achieve 50% emission reduction by 2030 in public sector buildings; and
- CleanBC Roadmap to 2030’s target of zero-carbon new public sector buildings by 2027.

The CleanBC Government Buildings Program uses six pathways to reduce emissions and energy consumption in government buildings (Figure 4). In 2023, CITZ implemented actions in each of the six pathways.

Figure 4: Pathways to Reduce Emissions and Energy Consumption in Government Buildings



3.1.1 Building Energy Retrofits and New Construction

Retrofits allow buildings to use energy more efficiently. CITZ conducts several energy- and emission-reduction assessments across government’s portfolio every year to identify potential energy-saving projects. CITZ evaluates each project from a triple bottom line perspective, and then prioritizes and implements the projects accordingly.

Since the launch of the CleanBC Government Buildings Program, CITZ has completed or has ongoing retrofit projects at more than 70 government buildings. These projects include efficient heating, ventilation and air-conditioning (HVAC) systems, low-carbon electrification, heat recovery systems, and insulation, airtightness and lighting upgrades.

3.1.2 Leading Workplace Strategy

Leading Workplace Strategy

The Leading Workplace Strategy is a cross-government project led by CITZ to transform government workplaces to support a hybrid workforce. This strategy is foundational to government’s policy change where all positions are eligible for remote work by default unless an operational need requires employees to be on site. It supports employees working both in-office and virtually by integrating technology, culture and space in innovative ways while managing space efficiently.

3.1.3 Electric Vehicle Charging Infrastructure

Since 2018, the CleanBC Government Buildings Program has supported the transition to zero-emission vehicles (ZEVs^b) in B.C. by increasing the availability of electric vehicle charging stations for government fleets, employees and the public at service delivery locations. In 2022, CITZ and the Climate Action Secretariat launched the CleanBC Government Fleet Program Plan to reduce government's fleet emissions by adopting ZEVs.

CITZ added a total of 226 electric vehicle charging stations at 83 provincial government sites since 2018. Among these stations, 122 spaces have been allocated for employee and public use, and 104 spaces are designated for fleet vehicles.

3.1.4 Smart Building Technology

Building and information technologies can play a key role in reducing energy consumption, enhancing productivity and improving daily life for building users. Work includes upgrading controls, energy metering and other systems, and continuing to improve the efficiency of laptops, printers and phones.

Building Energy Systems Controls

CITZ enhanced building automation systems in 2023. These projects included replacing outdated building controls hardware with modern technology to use energy only when it is needed to meet occupants' comfort. Since the launch of the program, CITZ has upgraded more than 80 buildings with state-of-the-art controls.

CBRE, CITZ's major facilities management service provider reviews building operations and implements recommissioning measures at approved buildings. Recommissioning ensures building equipment and systems are operating optimally to meet current occupant needs while providing a rigorous investigative approach to identify problems. Solutions are generally 'low cost/no cost' operational improvements and optimize the building's energy consumption without sacrificing comfort.

3.1.5 Adaptation for Resilience

Climate change has major implications for provincial buildings. Advancing the resiliency of government buildings will help protect both people and critical public infrastructure during extreme weather events.

In 2023, CITZ launched a three-year Climate Risk Management and Adaptation Program for government buildings. This program focuses on strengthening the ministry's capacity and modifying existing business processes to improve the climate resilience of government buildings.

CITZ developed a geographic climate hazard screening tool to evaluate buildings' exposure to events such as floods and extreme heat and it completed climate risk and vulnerability assessments for more than 50 buildings. Leveraging this experience, CITZ developed a custom climate risk assessment methodology for government buildings. Further climate risk assessments are planned in 2024.

3.1.6 Clean Energy Supply

Switching a building's heating fuel to clean energy significantly reduces carbon emissions. All major existing building HVAC projects within CITZ now undergo an electrification analysis, and several fuel-switching projects are already underway. All newly constructed provincial government facilities will use 100% clean energy sources.

^b Vehicle types recognized as ZEVs in BC are listed in the [Zero Emission Vehicles Regulation](#).

3.2 2023 Highlights from Ministries – Buildings

In 2023, ministries reduced their building emissions through the following actions:

- The Ministry of Children and Family Development completed several LWS projects:
 - A new Leading Workplace Strategy (LWS) site in Duncan consolidated three office locations into two, reducing the overall square footage but upgrading the physical space.
 - In Campbell River, ministry staff from three separate office locations moved to a new single LWS location. Like the Duncan offices, the physical space was also upgraded.
 - In Vancouver, staff moved from a former office to a new LWS location adjacent to public transit.
- The Ministry of Energy, Mines and Low Carbon Innovation completed an LWS transformation in their regional Cranbrook office.
- The ministries of Health, and Mental Health and Addictions worked with CITZ to replace HVAC and lighting systems and to fix windows with broken seals.
- The Ministry of Environment and Climate Change Strategy released the BC Parks Green Plan, which outlines how BC Parks will reduce the environmental impact of their operations. BC Parks plans to improve building energy efficiency and construct new buildings in accordance with green building standards. Staff have integrated action items into BC Parks' operational processes.
- The Capital Park office of the Ministry of Agriculture and Food aims to achieve a landfill diversion rate of over 75% to minimize waste. The ministry provided collection bins for organics, mixed paper and cardboard, blue box recyclable materials, refundable containers and soft plastics.

3.3 Future Emission Reduction Plans – Buildings

The provincial government will continue to invest in energy-efficient and smart buildings.

Additional actions planned at individual ministries are:

- The Ministry of Agriculture and Food will replace its Plant and Animal Health Centre in Abbotsford with a facility designed to meet LEED Gold certification standards and incorporate CleanBC requirements.
- The Ministry of Energy, Mines and Low Carbon Innovation will complete a new hybrid office in Vancouver in 2024.

4. FLEET EMISSIONS

In 2023, emissions from government fleet vehicles increased by 6.5% compared to the 2010 baseline and by 19% compared to 2022 levels. The provincial government also increased its overall fleet size to meet operational requirements.

Recent increases are largely attributed to the rise in wildfire suppression activities. Vehicle types used for emergency response are not yet widely available in electric versions, slowing government's ability to replace them as part of its transition to an electric fleet.

The provincial government is at significant risk of not meeting its 40% by 2030 CleanBC fleet emissions reduction target. In response to increased fuel usage due to provincial emergencies and wildfire suppression activities, government will need to explore alternative actions to reduce emissions and accelerate ZEV adoption to meet its CleanBC commitments for public sector fleets.

4.1 Emissions Reduction Actions in 2023 – Fleet

In 2023, the provincial government purchased 450 vehicles, of which 56 or 12% were ZEVs. An additional 102 vehicles were conventional hybrids. Provincial government had a total of 3,860 vehicles in its fleet in 2023 with 3% being ZEVs.

CITZ and the Climate Action Secretariat continue to collaborate with the broader public sector, local governments, businesses, Canadian provinces, and western U.S. states through various fleet and infrastructure working groups. This, includes the Public Sector Fleet Community of Practice, Buyers for Climate Action, the Pacific Coast Collaborative, and the New West Partnership Vehicle Working Group. These collaborations ensure the B.C. government remains current on emerging technologies, opportunities and risks in this sector.

4.2 2023 Highlights from Ministries – Fleet

Some ministry actions in 2023 include:

- The Ministry of Children and Family Development's Fleet Plan supports the transition of internal combustion engine vehicles to plug-in hybrid electric vehicles (PHEVs) through a five-year replacement plan. In 2023, the ministry installed 17 EVCS and ordered 48 PHEVs.
- The natural resources ministries (NRM) were early adopters of ZEVs and EV charging station installations. Presently, the NRM have 1,696 vehicles in its fleet, with 42 ZEVs. The NRM made significant progress with the Ford 150 Lightning pilot, initiated in 2022, to determine the best placement and use of these ZEV trucks and the charging infrastructure needed to further fleet electrification across the NRM. The NRM tested two Ford 150 Lightning trucks at more than 10 offices across B.C., and a third vehicle is permanently stationed in Prince George to bolster operations in the North.
- The Ministry of Environment and Climate Change Strategy, one of the NRM, installed 13 EV charging stations and ordered six ZEVs. When delivered, the ministry will have 23 ZEVs in its fleet. The ministry requires all car and SUV purchases to be ZEVs unless there is a business case not to acquire one.
- The Ministry of Transportation and Infrastructure replaced conventional vehicles with two hybrid half-ton trucks, six hybrid SUVs, one ZEV truck, and two ZEV SUVs.

4.3 Future Emission Reduction Plans – Fleet

Several ministries plan to continue greening their fleets:

- The Ministry of Children and Family Development plans to order 36 PHEVs each year for the next four years.
- The Ministry of Transportation and Infrastructure ordered two ZEV trucks and five hybrid SUVs for delivery in 2024.
- The Ministry of Emergency Management and Climate Readiness ordered all ZEVs for 2024/25, which will bring the proportion of ZEVs in the ministry’s fleet to 17%.
- The NRM will continue to replace all light duty vehicles with ZEVs where operationally feasible and if the budget supports it.
- The ministries of Forests, and Water, Land and Resource Stewardship have 21 ZEVs in their fleets, with six more ZEVs expected in late 2024 or early 2025.
- The Ministry of Agriculture and Food has ordered 10 new vehicles, which will arrive in the 2025 fiscal year. Eight of the 10 vehicles are conventional hybrid vehicles, which will replace gasoline powered vehicles.

5. PROCUREMENT EMISSIONS: OFFICE PAPER

Emissions from office paper consumption (printing paper) in 2023 were 61% lower than in 2010. The emission reductions are due to the decreases in print volumes and not a shift to lower carbon options.

Print volumes declined from 148 million pages in 2019 to 83 million pages in 2023, as many employees now work remotely and business processes have shifted to electronic systems. This represents nearly an 8% reduction compared to the volume recorded in 2022.

A shift to lower carbon paper options presents an opportunity for further emission reductions.

5.1 Emissions Reduction Actions in 2023 and Future Plans – Office Paper

5.1.1 Reducing Consumption

All ministries employ Managed Print Services, which uses double-sided printing as the default on all printing devices, and supports electronic and digital forms submissions, communications, and records storage. Many ministries have expanded the use of electronic means of document sharing, approvals, signatures and filing.

Below are some examples of how ministries reduced paper consumption in 2023:

- Ministry of Social Development and Poverty Reduction clients can access services and submit applications electronically through My Self-Serve. These virtual services increased by 12% to 52,729 client interactions from 2022, while monthly reports submitted and processed through this system increased by 23% to 46,530 from 2022.
- The Ministry of Energy, Mines and Low Carbon Innovation increased the use of the digital information management systems ‘Core’ and ‘MineSpace’ to facilitate electronic document

sharing between the ministry and the mining sector. When available, staff used paperless billing, with bills paid online or by phone.

Ministries have plans to continue reducing paper use; for example:

- The Child Care Division of the Ministry of Education and Child Care is looking to digitize the Early Childhood Educator Registry in the near future.

5.1.2 Paper Selection

Paper emissions reflect the lifecycle emissions of the product. This includes emissions related to the production, use and disposal of a product, including the extraction of raw materials, product manufacturing and intermediate transport steps. Reducing paper consumption is a primary approach to reducing emissions. However, further emission reductions can be achieved by selecting paper types that have a lower carbon footprint, such as recycled paper or certain paper types made from alternative fibres (e.g. sugarcane bagasse).

In 2023, 93% of paper purchased by the provincial government contained 0% recycled content, which represents a significant increase in provincial government’s proportionate use of virgin paper since 2010 (see Table 3).

Table 3: Content of Paper Consumed by Provincial Government

	2010	2022	2023
100% Recycled Content	22.8%	2.3%	2.2%
30% Recycled Content	42.0%	8.7%	4.8%
0% Recycled Content	35.3%	89.0%	93.0%

The Master Standing Agreement for Office Supplies and Associated Services provides for a wide range of copier paper, including paper with recycled content and recognized environmental certifications (e.g. Forest Stewardship Council (FSC) and Sustainable Forestry Initiative), as well as alternative paper types. Additionally, the [2024 BC Procurement Plan](#) encourages responsible sourcing, which ministries can apply to their selection of paper types to purchase options associated with lower carbon footprints, such as paper with higher recycled content.

CITZ and the Ministry of Environment and Climate Change Strategy are exploring opportunities to further support ministries in selecting paper that is associated with lower life cycle emissions.

The Ministry of Health and Ministry of Mental Health and Addictions ordered 100% recycled and FSC-certified paper for all 8 ½" x 11" white paper required for their headquarter offices.

6. BUSINESS TRAVEL EMISSIONS

As more provincial government services returned to business as usual in 2023, emissions from business travel increased by 53% when compared to 2022 levels and was a contributor to the overall increase in provincial government emissions. The increases in 2023 were largely the result of increased air travel.

Although 2023 business travel emissions increased from 2022 levels, they are still 24% lower than pre-pandemic levels.

6.1 Emissions Reduction Actions in 2023 and Future Plans – Business Travel

Many ministries reported continuing to use virtual meeting platforms in place of face-to-face meetings in 2023. Some highlights include:

- The Ministry of Education and Child Care conducted virtual or hybrid meetings for 50% of independent school inspections, 100% of B.C. offshore school sector meetings, and 95% of discipline process interviews.
- As of March 2024, 91% of staff in the Ministry of Social Development and Poverty Reduction have digital work-from-home agreements, and work an average of four days a week at home.

In addition to these actions, staff in some ministries carpool to meetings, conferences and workshops, and many ministries encourage staff to commute to meetings via public transit and active transportation.

7. RETIREMENT OF OFFSETS

In accordance with the requirements of the *Climate Change Accountability Act* and the [Carbon Neutral Government Regulation](#), the provincial government will arrange the retirement of offsets obligation for the 2023 calendar year, together with any adjustments reported for the past calendar year (Table 4).

Table 4. Provincial Government 2023 GHG Emissions and Offsets^c

Provincial Government 2023 GHG Emissions and Offsets	
GHG Emissions created in Calendar Year 2023	
Total Emissions (tCO ₂ e)	55,935
Total BioCO ₂	1,435
Total Offsets (tCO ₂ e)	54,499
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO ₂ e)	0
Grand Total Offsets for the 2023 Reporting Year	
Grand Total Offsets (tCO ₂ e) to be Retired for 2023 Reporting Year	54,499

8. SUMMARY

This report fulfils the provincial government’s reporting requirements under Section 7 of the *Climate Change Accountability Act* for the 2023 calendar year.

In 2023, the Province of British Columbia had a 34% reduction in GHG emissions relative to the 2010 baseline. The greatest relative reductions in emissions from the 2010 baseline year have been achieved in office paper (61%), followed by business travel emissions (54%) and buildings (44%). In the context of the CleanBC plan and CleanBC Roadmap to 2030 commitments to reduce public sector emissions, this 2023 Climate Progress Report demonstrates significant progress and planned actions for building emission reductions, as well as the need for concerted efforts to shift to ZEVs and to lower carbon paper options, such as recycled paper.

The actions and plans outlined in this report reflect lessons learned and the provincial government’s ongoing commitment to climate action.

^c Due to rounding, numbers presented in Table 4 may not add up precisely to the totals reported.