

2020 GOVERNMENT OF BRITISH COLUMBIA CLIMATE PROGRESS REPORT

THIS REPORT FULFILS THE REQUIREMENT TO PREPARE AND
MAKE PUBLIC A CLIMATE CHANGE ACCOUNTABILITY
REPORT FOR THE PROVINCIAL GOVERNMENT
(PER SECTION 7.1 OF THE *CLIMATE CHANGE
ACCOUNTABILITY ACT*)

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1. INTRODUCTION

This Climate Change Accountability Report (CCAR) (formerly named the Carbon Neutral Action Report (CNAR)) fulfills the Provincial government's reporting requirements under section 7 of the *Climate Change Accountability Act (CCAA)* for the 2020 calendar year where "Provincial government" represents a consolidation of provincial ministries and independent offices.

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

- Greenhouse gas (GHG) emissions from its buildings, vehicles, office paper, and business travel;
- Offsets retired in relation to emissions produced to achieve carbon neutrality;
- Actions taken in 2020 to minimize emissions; and
- Plans to minimize future emissions.

The Clean Government team of the Climate Action Secretariat (CAS) works with the Ministry of Citizens' Services (CITZ) and other ministry representatives to collect and enter energy and other consumption data into the Clean Government Reporting Tool (CGRT). The emissions data are then available to ministries for information and analysis in June each year.

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, therefore, largely provided by CITZ and supplemented by details from other ministries. Actions and plans related to staff-level sustainability initiatives are provided by individual ministries and are also highlighted throughout this report.

The 2020 reporting year marked the 11th consecutive year of B.C has achieved carbon neutral operations across its entire public sector. This significant achievement is the result of substantial efforts by all Provincial government employees. British Columbians can be proud that their province has displayed global leadership in advancing climate action through the Carbon Neutral Government (CNG) program.

2. PROVINCIAL GOVERNMENT EMISSIONS SUMMARY

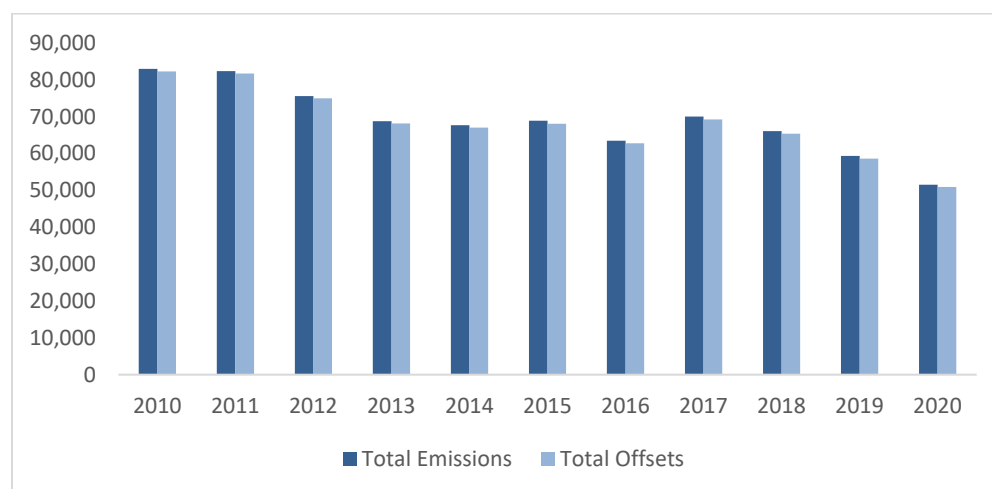
Provincial government's emissions have decreased overall in the last decade (Table 1). In 2020, emissions decreased by 38% from the 2010 baseline (Figure 1) and by 13% from 2019 levels. Buildings have historically been the largest source of emissions, accounting for approximately 60% of all emissions, followed by fleet vehicles, business travel and office paper (Figure 2, next page).

In the 2020 calendar year, government experienced a major shift in workplace practices. Driven by the COVID-19 pandemic, employees largely worked from home resulting in notable decreases in emissions in fleet use, business travel and paper use. However, energy consumption in buildings did not see an equivalent drop in emissions.

Table 1. Total Provincial Government Emissions and Offsets for 2020
(2010 baseline year shown for comparison purposes)

	2010 ^a	2020
Total Emissions (tCO₂e)	82,939	51,506
Total Offsets (tCO₂e)^b	82,266	50,902

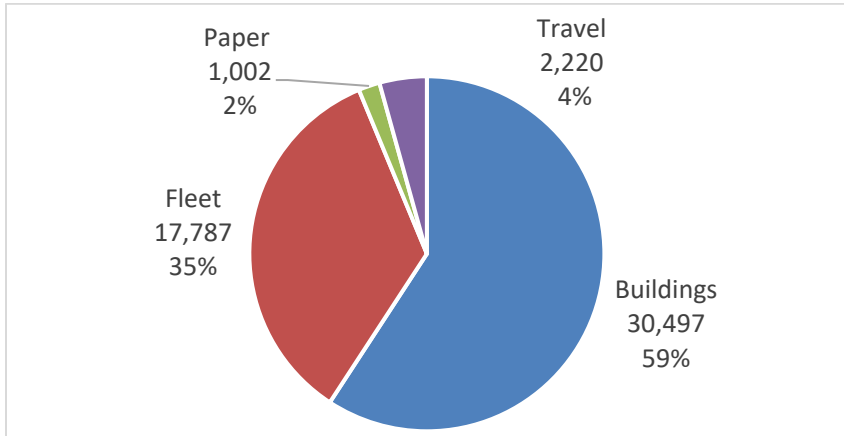
Figure 1: Change in Provincial Government GHG Emissions (tCO₂e)



^a In 2019-2020, the provincial public sector transitioned to a new emissions reporting tool called the Clean Government Reporting Tool (CGRT). Emissions data was migrated from the former SMARTTool into CGRT, resulting in slight adjustments to historic emissions due to configuration differences between the tools.

^b Emissions from biogenic sources (e.g., combustion of renewable fuels) totaling 604 tCO₂ in 2020 are offset exempt.

Figure 2: 2020 Provincial Government GHG Emissions by Source (tCO₂e)



2020 Building emissions have decreased by more than 40% from the 2010 baseline year (Figure 3 below); however, there was only a 1% reduction from 2019 levels (Table 3 below).

As a result of the COVID-19 pandemic, many employees worked from home in 2020. Portfolio-wide energy consumption reduced slightly due to the pandemic. To maintain service continuity and ensure employee safety, building operations were not adjusted to account for reduced occupancy. The heating, ventilation, and air conditioning (HVAC) systems at some large assets had ventilation rates increased, keeping in line with public health guidelines and at the request of tenants. Most of the public-serving government offices in B.C. continued services throughout the pandemic. Some health centres had operational hours increased to accommodate testing sites. In both cases, this led to increased energy consumption at those facilities.

Overall energy savings were likely the result of lower plug loads and reduced lighting usage, where lights are manually controlled, at properties where occupancy was reduced, such as offices.

Energy consumption has dropped steadily since 2010:

- Energy use from burning fossil fuels such as natural gas, and biogenic fuel such as wood waste, fell by a total of 38% since 2010. Between 2019 and 2020, there was little change in these stationary combustion emissions.
- Electricity use declined by 23% since 2010. The decrease in electricity use between 2019 and 2020 was 9%.

2020 Fleet emissions dropped by 11% compared to 2010 and 15% compared to 2019. Three ministries (Forests, Lands, Natural Resource Operations and Rural Development, Environment and Climate Change Strategy and Transportation and Infrastructure) account for 80% of the Provincial government’s fleet emissions.

2020 Business Travel emissions were significantly lower (79%) over 2010 and 65% lower than 2019 levels. The significant drop in 2019 is largely attributed to the pandemic restrictions on travel.

2020 Office Paper emissions have decreased by 47% since 2010. While 2020 paper emissions were 27% lower than in 2019, the relative proportion of 100% recycled paper consumed in 2020 was lower than in 2019; see Table 2 below.

Table 2: Content of Paper Consumed by Provincial Government

	100% Recycled Content	Virgin Paper
2019	6%	85%
2020	3%	91%

Figure 3: Change in Provincial Government GHG Emissions by Source (tCO₂e) 2010 to 2020

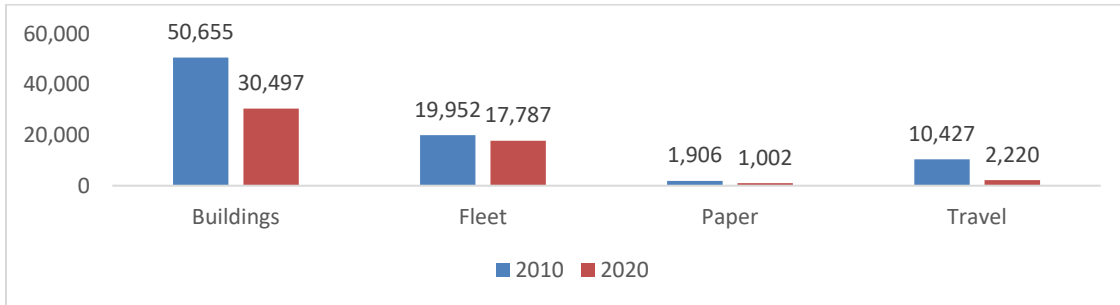


Table 3: Change in Provincial Government Emissions by Source (tCO₂e) 2019 to 2020

Source	2019 Emissions (tCO ₂ e)	2020 Emissions (tCO ₂ e)	% Change from 2019
Buildings	30,815	30,497	-1%
Fleet	20,831	17,787	-15%
Paper	1,376	1,002	-27%
Travel	6,320	2,220	-65%
TOTAL Emissions	59,342	51,506	-13%

3. BUILDING EMISSIONS

CITZ manages a portfolio of over 1500 owned, leased and managed facilities across the province, spanning over 14 million square feet of space. These buildings cover a variety of archetypes such as offices, courthouses, correctional facilities, warehouses, and labs, among others. Emissions from buildings comprise approximately 60% of government's total reported emissions.

3.1 Emission Reduction Actions in 2020 - Buildings

Energy management efforts have been long-standing in CITZ and its predecessor organizations for over 40 years. These efforts have resulted in more than 60% reduction in energy use intensity since 1970. In 2019, CITZ publicly announced the [CleanBC Governments Buildings Program](#), a five-year plan to reduce building energy consumption and associated GHG emissions, along with improving occupant comfort and life-cycle return on investment.

Ongoing energy management efforts continue to effectively reduce building-related carbon emissions. These efforts are driven by two key factors: the commitment by government to achieve net-zero GHG emissions by 2050, and the CleanBC target of reducing GHG provincial building emissions 50% by 2030.

Efforts to reduce building emissions fall into four categories:

- Behavioural change-management actions
- Operations and maintenance actions
- Programming actions
- Infrastructure actions

These actions are described in the sections below.

3.1.1 Behavioural Change-Management Actions

Despite the pandemic and working from home, some behavior-change campaigns to encourage BC public servants to reduce energy use were delivered in 2020. Below are descriptions of the key initiatives that were undertaken.

SAIL Award

In 2020, CITZ continued to deliver the Sustainability Action Innovation and Leadership (SAIL) Award, first launched on Earth Day 2016. The SAIL Award recognizes employees who take the time to show leadership in advancing sustainability in core government operations. Each of the winning individuals and teams contribute measurably to the sustainability of core government operations. Since its launch, the SAIL Award has recognized 16 sustainability leaders and/or teams across ten ministries and agencies within core government.

In 2020, the recipients included staff from the Ministries of Environment and Climate Change Strategy and Municipal Affairs. These inspirational employees were instrumental in the environmental stewardship of their workplaces. Each employee dedicated considerable volunteer hours towards initiatives such as forming and leading green teams, implementing waste reduction projects, and reducing junk mail.

Building Sustainability

The SHIFT Speaker Series is a webinar series designed and developed by CITZ to support and inspire their staff to bridge the gap between environmental objectives and daily work. CITZ recently expanded the scope to include health and safety aspects of sustainability. The videos reach about 250 staff, who hear directly from different organizations and jurisdictions about their experiences.

Energy Wise

CITZ also continues to participate in [BC Hydro's Energy Wise Network](#), a program that provides a small seed funding and consulting time to support workplace behaviour change campaigns. To accommodate workstyle changes due to the pandemic, the 2020 funding was used to engage staff through the SHIFT speaker series on topics such as zero waste lunch kits, LED solar emergency lights and climate pledges.

3.1.2 Operations and Maintenance Actions

In 2020, CITZ contracted a new facility management service provider, who is responsible for maintaining and operating government's building portfolio. A centralized team of technical experts in automated building controls reviews building operations and implements re-commissioning measures as needed.

Re-commissioning ensures that building equipment and systems are operating optimally to meet current occupant needs. It also ensures a rigorous investigation in identifying problems and a focus on ascertaining "low cost/no cost" operational improvements to obtain comfort and energy savings. The team calibrates building systems and works with field staff to bring the building systems to their optimal performance, and their efforts have resulted in annual energy savings of approximately 23,600 GJ and 250 tCO₂e avoided at 57 large properties in 2020.

3.1.3 Programming Actions

Leading Workplace Strategies

Leading Workplace Strategies (LWS) is a cross-government initiative led by CITZ. LWS refers to government's coordinated corporate approach to support and promote mobile and flexible work styles by integrating technology, culture and space in innovative ways. It includes mobility-based options such as free-address (shared) workspaces, collaboration spaces, and telework as part of the suite of options. The LWS initiative has enabled thousands of employees to work in more flexible and collaborative ways, taking advantage of mobile technology. LWS is now seen as the default approach for workspaces to support mobility and flexibility as per "Where Ideas Work: A Corporate Plan for the BC Public Service, 2016."

As of 2020, 48 LWS projects at 37 government buildings have been completed resulting in:

- Over 75,800 m² of upgraded office space that accommodates almost 6,000 employees,
- A reduction in office space reduced by over 53,800 m²,
- Over \$18.9M in building occupancy costs are now saved annually, and
- More than 3,701 tonnes of GHG emissions reduced to date. This is the equivalent of having 787 fewer cars on the road.

24 more leading workplace projects are currently underway throughout BC.

LWS offers government staff with the ability to work anywhere. In 2020, the flexibility to work from home or the office proved to be vital during the pandemic.

Carbon impact assessments are included in the LWS decision-making process for options that consider space changes or net new leases. These projects achieve specific density targets that ensure CITZ is maximizing the portfolio use while not taking on additional space assets that would contribute increased carbon emissions. The positive or negative effect is considered in conjunction with financial considerations as well as service delivery and impacts to staff (triple bottom line approach).

3.1.4 Infrastructure Actions

Prioritization

Priority is given to building infrastructure investments that meet a range of government imperatives (e.g. health and life safety, client programming, building integrity along with the energy conservation and GHG emissions reduction). This investment strategy defines and weighs criteria to evaluate capital projects and to apply those criteria consistently, thereby creating a defensible capital investment program. The investment program was implemented to reduce subjectivity, increase transparency and produce a process that is scalable to many projects across a diverse portfolio of owned assets.

CITZ undertook a strategic clean energy portfolio-wide study to assess the viability of various clean energy technologies like wind and storage, along with potential heat pump applications. The results of this study will guide future investments.

In 2020, CITZ initiated projects, such as HVAC (heating, ventilation and air conditioning system) upgrades, lighting projects, re-commissioning studies, Direct Digital Control (DDC) upgrades, envelope upgrades and electric vehicle charging stations. These projects are expected to contribute to achieving the CleanBC 2030 emission reduction target.

Technology in Government Operations

CITZ oversees the distribution and maintenance of computers and laptops used for government operations and takes a variety of actions to reduce energy consumption. As technology equipment reaches end-of-life, CITZ refreshed them with more efficient options. For example, replacement of desktop computer with laptops saved approximately \$28,300 in 2020, while reducing energy use by 228,278 kWh per year.

CITZ has implemented other improvements, such as increased power management, modernization, and strategic procurement, e.g. buying larger switches and routers, instead of four individual units where one would suffice.

3.2 2020 Highlights from Ministries – Buildings

In 2020, ministries reduced their building emissions through several behavioral and strategic planning initiatives:

- The Real Property Division (RPD) in CITZ works collaboratively to develop and promote best practices and provide insight on environmental stewardship Initiatives included:
 - Integrating carbon reduction requirements into the annual capital planning process,

- Using mapping as a tool for flood, fire, and tsunami-related climate risks for emergency planning, and
- Applying a rigorous Triple Bottom Line Cost Benefit Analysis to property disposals and acquisitions. Analyses include assessments of carbon reduction, resource extraction and water consumption, and evidence of the analysis must be provided before any properties can be added and/or sold.
- The Ministry of Social Development and Poverty Reduction centralized client records into two file hubs, reducing the space needed for records storage. The ministry also upgraded offices with more efficient Light Emitting Diode (LED) lighting and Direct Digital Control (DDC) upgrades.
- Numerous ministries installed water bottle refilling stations in offices as a waste diversion strategy.
- The Ministry of Forests, Land, Natural Resource Operations and Rural Development is shifting to LED technology, motion sensor lighting systems and glass panels for natural light.
- Ministries continued to consolidate offices to reduce their per employee emissions, support flexible work arrangements and embrace technology, allowing staff to work from home or in offices closer to home.
- Ministries with offices in Victoria encouraged employee participation in the “Go By Bike” event.

3.3 Success Stories – Buildings

The University Endowment Lands with the **Ministry of Municipal Affairs**:

- Signed onto the province’s mass timber early adoption program which enables construction of buildings with a lower carbon footprint, and
- Drafted bylaw regulations to fast-track adoption of the energy step code and to encourage 5% of new on-site parking to include Level 2 Electric Vehicle (EV) charging stations at mixed or multifamily developments.

The **Ministry of Health and Ministry of Mental Health and Addictions** removed liners and bags from organic bins in all washrooms at the headquarters location. Over 40 bins no longer have a liner or bag saving over 10,000 bags per year.

The **Ministry of Agriculture, Food and Fisheries** headquarters building at Capital Park is currently under review for Leadership in Energy and Environmental Design LEED™ Platinum certification. It is estimated the building will consume 40% less energy and reduce water consumption by 50%. Other features include:

- An energy efficient air source heat pump,
- Storm water storage and grey water recirculation for irrigation and toilets, and
- A green roof to reduce air conditioning needs and help retain storm water.

An employee with the **Ministry of Environment and Climate Change Strategy** won the annual SAIL Award for leading a ministry Green Team and bringing the ‘Love Food, Hate Waste’ campaign to the ministry. The award was accompanied with some funding that was used for a plant wall and the launch a mug-sharing program.

The **Ministry of Education** conducted the “Peaks Travel Challenge”, an annual health and fitness event that has health and environmental benefits. The challenge encourages employees to make choices that support physical activity. In 2020, a cumulative total of almost 13 million steps were taken by 75 employees.



3.4 Future Emission Reduction Plans - Buildings

Long-term energy consumption and GHG emissions reduction targets are driven by both a vision to achieve net zero energy consumption at provincial buildings beyond 2050 and by the CleanBC Plan’s target to achieve 50% emission reduction by 2030 in public sector buildings.

The CleanBC Governments Buildings Program focuses on investing in core government buildings for energy efficient and smart government buildings through milestones categorized under six pathways: Energy Retrofits and New Construction, Smart Building Technology, Adaptation for Resilience, Clean Energy Supply, and Electric Vehicle Charging Equipment.

The milestones will be achieved over time through activities in the aforementioned areas of: (1) behavioral change, (2) optimized operations, (3) client programming, and (4) infrastructure investments. Activities undertaken will reflect available resources, technological and administrative advancements, and priorities. Activities are required, and will continue to be required, of facility management service providers under contractual obligations.

Additionally, CITZ applies a rigorous triple bottom line decision-making criterion to assess whether to buy, sell or lease properties. CITZ uses a Multi-Criteria Analysis tool to rank aspects of environmental effects of each building, providing the opportunity to develop and upgrade critical building systems, for example HVAC or electrical, and thereby reduce emissions.

Additional actions planned at individual ministries are:

- The University Endowment Lands with the Ministry of Municipal Affairs will:
 - Update bylaws to improve water conservation,
 - Design a second off-grid water well for community gardens and emergency water supply, and
 - Introduce policies specific to climate change resilience, energy management and building performance.
- The Ministry of Children and Family Development will move into the province’s pilot Net-Zero site in Williams Lake. The building will feature a geothermal heating/cooling system, solar power, bike storage and EV charging stations.
- The Ministry of Social Development and Poverty Reduction will complete six LWS projects over the next two years and continue to modernize the printing and mailing systems so employees can manage these processes from home.

- The Ministry of Health and Ministry of Mental Health and Addictions will work with CITZ:
 - To upgrade building systems at headquarters to be more energy efficient. Upgrades include HVAC and lighting system replacements, and window repairs or replacements to address broken weather seals, and
 - Replacing outdated refrigerators and microwaves with ENERGY STAR™ certified appliances.
- The Ministry of Energy, Mines and Low Carbon Innovation will consolidate two offices in Victoria into one LWS location, eliminating business travel between the offices.
- Ministries will increase employee bike storage and the number of staff change rooms.
- Ministries will continue to encourage staff to aim for zero waste through recycling, composting, water conservation, avoiding single use items, and using less paper. The use of mobile work options and virtual meetings will continue to be emphasized and encouraged.

4. FLEET EMISSIONS

Analysis shows that between 2010 and 2020, government fleet emissions decreased by 11%. However, this decrease is largely attributed to a restriction in face-to-face contact during the pandemic. Prior to the pandemic, fleet emissions had increased by 5% from 2010 levels. Some zero emission vehicles (ZEV)^c are now more readily available on the market, and efforts to move fleet emissions to a downward trend are now underway.

4.1 Emissions Reduction Actions in 2020 - Fleet

In 2018, the Provincial government signed onto the Express Lane Tier of the West Coast Electric Fleets Pledge, committing that, starting in 2020, at least 10% of light-duty vehicle purchases will be zero-emission vehicles (ZEV). Government uses a shared services model for fleet vehicle procurement and administration. The central branch has worked closely with vehicle manufacturers in 2019 and 2020 to secure battery electric and plug-in electric vehicles for purchase by government ministries.

Ministries are participating in a working group to meet or exceed the pledge target. In 2020, government ministries purchased 417 vehicles and 105 of these vehicles had ZEV models available at the time of purchase. Of the 105 purchases, 29 or 27% were ZEVs.

Government fleet emissions dropped by 15% from 2019. The COVID-19 pandemic shifted many government operations online. One notable exception is the Ministry of Agriculture, Food and Fisheries whose inspectors had a new mandate in 2020 to conduct COVID protocol inspections at farm sites where employers house workers. Inspectors traveled by fleet vehicle to all areas of the province, often to rural areas to access the farms.

Light-duty vehicles represent less than 10% of the total Provincial government fleet. Medium duty trucks (such as large pickup trucks) and heavy-duty vehicles make up the remaining fleet vehicles. Manufacturers have announced ZEV options for these larger vehicle types and are expected to introduce them on the market in Canada in the coming years.

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

The CITZ Electric Vehicle Charging Equipment (EVCE) Program supports the transition to ZEVs at government facilities by increasing availability of charging stations for government fleet vehicles, employees and visitors. In 2020, CITZ worked with ministry clients to identify and implement 18 EVCE spaces at 9 sites with 46 more stalls planned for 2021.

4.2 2020 Highlights from Ministries – Fleet

- The University Endowment Lands at the Ministry of Municipal Affairs:
 - Replaced an aging truck with a smaller EV,
 - Completed the upgrade of all streetlights to LED, and
 - Added 600 meters of separated bike lanes to connect major networks.
- The Ministry of Health and Ministry of Mental Health and Addictions relinquished six gasoline fleet vehicles and added three EVs and three hybrid vehicles. Charging stations were installed to support the EVs.
- The Ministry of Forests, Land, Natural Resource Operations and Rural Development replaced nine gasoline vehicles with EVs and added ten EV charging stalls to their fleet parking.
- Ministry of Environment and Climate Change Strategy purchased six EVs, bringing the total to twelve in the ministry’s fleet.

4.3 Success Story – Fleet

The **University Endowment Lands** at the Ministry of Municipal Affairs ordered Canada’s first fully electric refuse truck. The truck was procured from Quebec-based Lion Electric Co. The new truck will not only save 2,000 litres of diesel per year, it will have lower maintenance costs and fewer impacts on human, animal and plant health.



Source: UEL concept design. June 2021

4.4 Future Emission Reduction Plans – Fleet

Government ministries will continue to collaborate on ZEV purchases and meeting the 10% ZEV purchase pledge. To support this work, CITZ will continue work under the EVCE Program, prioritizing installations according to current demand and opportunities. Growth is informed by the availability of ZEVs to service government operations and by gaps in the overall provincial EVCE infrastructure that may compromise the future uptake in ZEV (both fleet and personal). Demand is established through

continual monitoring of EVCE use, consultation with ministries and ongoing conversations with EVCE champions.

Government is looking ahead 5 years at fleet vehicle demand to forecast which offices are likely to purchase ZEVs. CITZ is deploying charging infrastructure at government buildings in advance of anticipated ZEV purchases. Once a broader range of ZEV types are available for ministries to purchase, government is expected to be well positioned to bring a greater number of them into the fleet.

Several ministries also plan to green their fleets:

- University Endowment Lands with the Ministry of Municipal Affairs will purchase the second all-electric refuse truck.
- The Ministry of Forests, Land, Natural Resource Operations and Rural Development will replace some SUVs with EVs and encourage use of e-bikes instead of gasoline dirt bikes.
- The Ministry of Children and Family Development will incorporate two EVs into their fleet.
- All Ministries plan for continued fleet emission reductions by replacing fleet vehicles with electric, hybrid and more fuel-efficient options and installing electric vehicle charging stations at their buildings.

5. PROCUREMENT EMISSIONS: OFFICE PAPER

Emissions from office paper consumption has decreased by 47% since 2010 and 27% since 2019. The drop from last year occurred largely because employees worked from home in response to Provincial health orders.

2020 data shows that 100% recycled paper represented only 3% of total consumption by ministries, while over 91% was virgin paper. Government is looking into how to encourage increased use of recycled-content paper.

5.1 Emissions Reduction Actions in 2020 – Office Paper

All ministries employ Managed Print Services (MPS) to reduce its consumption of office paper and associated emissions, through:

- Use of printers and multifunction devices with MPS devices. MPS equipment is not only more energy efficient, it also makes use of use “on-demand printing” through a print job which helps reduce the paper consumption associated with “orphaned print jobs”,
- Enabling double-sided printing as the default on all printing devices, and
- Expanding the use of electronic and digital means of government forms submissions, communications and records storage.

Individual ministries reduce paper consumption through a variety of additional actions:

- The Ministry of Education implemented:
 - The Teacher Certification Enhancement Project. The project eliminated the need to print applicant summaries, receive paper-form transcripts and recommendation letters from institutions and authorities, and print teaching certificates, and

- New online tools that eliminated paper documents for enrollment, withdrawal/transfer, reporting and communications between schools, students and guardians.
- Queen’s Printer (QP) is mandated to produce all print materials government cannot produce locally. QP offers digital services and encourages green options when feasible.
- The Ministry of Social Development and Poverty Reduction:
 - Continued to transition to paperless client and internal processes and procedures, including electronic signatures for client agreements, and electronic client monthly report submissions, and
 - Established designated offices that manage ministry printing and mail handling functions across the province, resulting in reduced paper use, and courier and postal service needs.
- The Ministry of Environment and Climate Change Strategy is developing an approach to digitizing legacy paper-based processes.

5.2 Success Stories – Office Paper

The **Ministry of Education** implemented enhancements to MyEducationBC. The enhancements reduced paper-based materials for payment and registration services, and supported email communications. The electronic communications were critical for providing timely and important COVID-related information to schools.

The **Public Service Agency** encourages a paperless environment. When printouts are required, the ministry employees diligently recycle the paper and, in 2020, recycled almost 33,000 pounds of paper.

6. BUSINESS TRAVEL EMISSIONS

Government employees significantly limited business travel due to COVID-19 travel restrictions. As a result, emissions from business travel dropped 79% in 2020 from 2010 levels and 65% from 2019 levels.

6.1 Emissions Reduction Actions in 2020 and Future Plans – Business Travel

The COVID-19 pandemic was a catalyst for increasing the use and acceptance of virtual meeting platforms in place of face-to-face meetings.

- The Ministry of Health and Ministry of Mental Health and Addictions completed a Boardroom Refresh Project in all its locations to upgrade technology to support virtual meetings.
- The Ministry of Education shifted to virtual inspections of all offshore schools and 65% of independent schools, eliminating much of local and international air and land travel.
- The Ministry of Advanced Education and Skills Training replaced older videoconferencing devices with Microsoft Teams Rooms to encourage videoconferencing in place of business travel.
- At the Ministry of Environment and Climate Change Strategy, the Climate Action Secretariat held its annual CleanBC Program for Industry workshop online, eliminating the need for employees and workshop attendees to travel for this event.

All ministries plan to continue the above actions to minimize emissions from business travel.

In 2021, the Ministry of Education will apply lessons learned and shift to Teacher Education scholarship adjudication meetings to a virtual platform and eliminate the need for teachers to travel to Victoria.

7. Managing Risks related to a Changing Climate

In addition to taking actions to reduce emissions, Provincial government must also prepare for the effects of a changing climate. Elevated levels of greenhouse gases already in the atmosphere will continue to cause changes for decades to come. While we can't undo the past and avoid the effects of climate change, we can be better prepared to reduce their impacts and strengthen the resilience of our communities, ecosystems and economy.

Public servants across the province see the impacts of climate change firsthand – from increased wildfires and extreme weather to longer droughts and more frequent flooding. These impacts affect every citizen of BC and the provincial government services they need. This section describes actions that the Provincial government undertook in 2020 to build climate resilience across ministries and offices. While these actions help build resilience within Provincial government, many also have further reaching effects, for example on public services provided by specific ministries and offices.

Additional, broader climate risk management initiatives are described in other CleanBC publications such as the 2020 Climate Change Accountability Report^d and the draft Climate Preparedness and Adaptation Strategy^e. The draft strategy, released on June 9, 2021, builds on a range of actions already underway by ministries, such as fostering resilient forests and supporting a climate-adapted agriculture sector, as well as investments through StrongerBC, BC's COVID economic recovery plan, to reduce risks from wildfire, flooding and drought, among many others.

As part of the CleanBC Governments Buildings Program, CITZ engaged a climate expert consultant team to develop a custom climate adaptation framework and climate risk assessment methodology. CITZ completed three climate risk assessments as a pilot at locations in Vancouver, Kamloops, and Prince George. To date, CITZ has completed over 50 asset specific climate risk or vulnerability assessments in the portfolio using the methodology.

7.1 2020 Highlights from Ministries - Climate Resilience Actions

- The Ministry of Children and Family Development used a custom designed mapping tool to provide real-time information on location of children in care, ministry offices and partner agencies in relation to areas under evacuation alerts and orders.

^d 2020 Climate Change Accountability Report, available at: <https://news.gov.bc.ca/releases/2020ENV0061-002075>

^e Draft Climate Preparedness and Adaptation Strategy, available at: <https://news.gov.bc.ca/releases/2021ENV0042-001112>

- The Ministry of Forests, Land, Natural Resource Operations, and Rural Development integrated climate change considerations into program areas, operations, resource management decisions and actions, including:
 - Released the ministry’s 2020 Climate Change Strategy,
 - Hosted the Climate Action Community of Practice,
 - Updated climate change modelling with updated data to better understand the possible climate change impacts, and
 - Continued the 2 Billion Trees Program, and
 - Invested in the Forest Carbon Initiative projects to increase long-term carbon sequestration and avoid emissions in BC’s forests.
- The Ministry of Environment and Climate Change Strategy:
 - Provided staff with continuing education opportunities on climate change impacts and adaptation,
 - Co-funded the Inspiring Climate Action project, led by Royal Roads University that delivers the continuing education course on climate adaptation, and
 - Partnered with the Pacific Climate Impacts Consortium to develop guidance materials and training on the use and interpretation of climate science data for use in climate risk assessments, adaptation planning and decision making.
- The Ministry of Agriculture, Food and Fisheries:
 - Funded the completion of six regional adaptation strategies, 43 regional adaptation projects and 15 farm-level projects,
 - Developed farm-level wildfire planning resources and hosted four virtual wildfire preparedness workshops,
 - Supported 12 multi-year collaborative research projects, and
 - Delivered climate adaptation training to employees.
- The Ministry of Social Development and Poverty Reduction developed an Extreme Weather Strategy in select offices and monitored how climate changes impact the job market and demand on ministry services.
- The University Endowment Lands at the Ministry of Municipal Affairs adopted a stormwater management strategy and added two rain gardens.
- Ministries strengthened links between business continuity plans and risk management by incorporating risks posed by a changing climate.

8. RETIREMENT OF OFFSETS

Below is the summary of emissions and offsets for Provincial government for the 2020 calendar year.

Table 4. Provincial Government 2020 GHG Emissions and Offsets

Provincial Government 2020 GHG Emissions and Offsets	
GHG Emissions created in Calendar Year 2020	
Total Emissions (tCO ₂ e)	51,506
Total BioCO ₂	604
Total Offsets (tCO ₂ e)	50,902
Adjustments to Offset Required GHG Emissions Reported in Prior Years	
Total Offsets Adjustment (tCO ₂ e)	-5,384
Grand Total Offsets for the 2020 Reporting Year	
Grand Total Offsets (tCO ₂ e) to be Retired for 2020 Reporting Year	45,518

In accordance with the requirements of the *Climate Change Accountability Act* and Carbon Neutral Government Regulation, the Provincial government will arrange the retirement of the offsets obligation reported above for the 2020 calendar year, together with any adjustments reported for the past calendar year.

9. SUMMARY

This report fulfills the Provincial government's reporting requirements under section 7 of the *Climate Change Accountability Act* for the 2020 calendar year. As demonstrated in this CCAR for the Provincial government, staff across all ministries work to implement the small and large measures with passion and dedication.

The COVID-19 pandemic has had a considerable impact on many aspects of life in British Columbia, including the way we work. Due to health and safety precautions, most employees have opted to work from home during the pandemic. Online communication platforms and remote access tools for teleworking enabled employees to continue to deliver critical services while working remotely. This shift to virtual platforms enabled a significant reduction in fleet vehicle use and paper consumption. Meanwhile, video conferencing software has offered a solution to replace business travel for meetings and conferences.

New ways of working learned during the pandemic will shape how government delivers services for years to come.