

Greening Government Strategy implementation plan and roadmap

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Introduction

As the owner and manager of the largest fixed asset portfolio in Canada (over 34,000 buildings; 20,000 engineered assets, such as bridges and dams; and over 40,000 vehicles), the Government of Canada has a critical role to play in meeting Canada's climate objectives.

With over \$30 billion in annual procurement, the government is the largest public buyer in Canada and is well positioned to leverage its procurement power to stimulate market demand for low-carbon products from Canada's emerging clean technology sector.

The Government of Canada is transitioning to net-zero emissions and climate-resilient operations, while also reducing environmental impacts beyond carbon, including reductions in waste and water use and improvements to biodiversity.

The <u>Greening Government Strategy: A Government of Canada Directive</u> specifies greening government commitments for:

- government-owned buildings
- government-owned fleet
- government procurement
- climate resilience (adaptation)

The Strategy was created in 2017 and updated in 2020 and 2024.

The <u>Greening Government Strategy</u> is the government's approach to meeting or exceeding national climate objectives in its own operations, consistent with the government's overall direction on climate change as outlined in the following:

- <u>A Healthy Environment and a Healthy Economy: Canada's Strengthened</u> <u>Climate Plan to Create Jobs and Support People, Communities and the</u> <u>Planet</u> (2020)
- the *Canadian Net-Zero Emissions Accountability Act* (2021)
- <u>Canada's 2030 Emissions Reduction Plan</u> (2022)

• <u>Achieving a Sustainable Future: Federal Sustainable Development</u> <u>Strategy 2022 to 2026</u>

The Greening Government Strategy is consistent with the United Nations' 2030 Agenda for Sustainable Development and the Federal Sustainable Development Strategy.

1. Overview of federal emissions

Scope 1 greenhouse gas (GHG) emissions are produced directly from sources that are owned or controlled by the Government of Canada (for example, from the combustion of fuels in vehicles or in heating buildings).

Scope 2 GHG emissions are indirect emissions from the generation of purchased energy (electricity, heating and cooling).

Twenty-eight departments produce scope 1 and scope 2 emissions from their real property and fleet. Departments track their scope 1 and scope 2 emissions and report them in the <u>Greenhouse Gas Emissions Inventory</u>.

Scope 3 GHG emissions are all other indirect emissions (not included in scope 2) that occur as a result of organizations' operations but are outside of the organization's direct control (for example, the emissions produced by companies to make the goods and provide the services purchased by the government, public servants' commuting and business travel). They consist of all GHG emissions released during the life cycle of a good or in the delivery of a service all the way along the supply chain. An estimate of the federal government's scope 3 emissions is found in the <u>Government of Canada's Greenhouse Gas Emissions Inventory</u>.

2. Establishing targets, commitments, and governance

The <u>Greening Government Strategy</u> establishes the Government of Canada's targets and commitments to get to net-zero, green and climate-resilient operations by 2050, with a focus on:

- government-owned and leased real property
- mobility (fleets, business travel and commuting)
- procurement of goods and services
- National Safety and Security Fleet operations
- government services and activities

Crown corporations are expected to align with the Strategy or adopt an equivalent set of commitments in each significant area of their operations, including the commitment to get to net-zero emissions by 2050 and to be climate-resilient.

Governance: The Centre for Greening Government, within the Treasury Board of Canada Secretariat, provides leadership toward net-zero emissions, climate-resilient and green Government of Canada operations. The Centre supports implementation of the Greening Government Strategy in different ways, including by chairing a senior-level interdepartmental committee and participating in or leading technical committees that target specific areas of implementation.

The Centre for Greening Government works closely with technical departments such as Natural Resources Canada, Environment and Climate Change Canada, National Research Council Canada and Public Services and Procurement Canada to provide expert advice and develop guidance to support departments that lead the implementation of the Strategy for their assets, procurement and operations. Departments have appointed leads for the development of their Departmental Sustainable Development Strategy that includes greening government commitments. Under the <u>Directive on the Management of Real</u> <u>Property</u>, the <u>Directive on the Management of Procurement</u> and the <u>Directive on the Management of Materiel</u>, departments have appointed senior designated officials with responsibility to implement the greening commitments in Treasury Board directives and policies.

3. Advancing plans and taking action

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 - Adapting to the impacts of climate change
 - Developing green policies and working with partners

To implement the Greening Government Strategy, departments develop overall plans on sustainability, such as a Departmental Sustainable Development Strategy and overall investment plans. The Departmental Sustainable Development Strategy for individual departments can be found on the <u>Departmental Sustainable Development Strategy</u> website. They also advance more tailored plans and actions, as appropriate, for their real property, fleet, procurement process, and climate resilience goals.

▼ Greening the real property portfolio

The Centre for Greening Government is working with departments to green the government's real property portfolio. The Greening Government Strategy has outlined specific commitments for real property.

To meet these commitments, departments are:

- reviewing and updating every five years, if necessary, plans for achieving net-zero emissions and climate -resilience for real property portfolios; the plans focus on making critical facilities climate-resilient and identify the most cost-effective way to achieve net-zero emissions from real property operations by 2050
- constructing new buildings that have net-zero emissions or that are net-zero-emissions-ready, that consider provisions for electric vehicle readiness for federal fleet vehicles, and that have designs that take into account the impacts of climate change
- retrofitting buildings to achieve: optimal GHG savings using a life-cycle cost approach (for a period of 40 years and with a carbon shadow price of \$300 per tonne), to consider provisions for electric vehicle readiness for federal fleet vehicles, and to incorporate measures that reduce current and future climate risks
- reducing, and disclosing the amount of, the embodied carbon of major construction projects starting in 2025 by using recycled and lower-carbon materials, through material efficiency and through performance-based design
- working toward using 100% clean electricity by 2025 either by producing or by purchasing it
- diverting at least 90% of construction and demolition waste from landfill, with a goal of diverting 100% by 2030
- working toward diverting at least 75% of operational waste from landfill, including plastic waste, by 2030

Starting in 2025, the government will be prioritizing net-zero emissions leased space. As the common service provider for leased Government of Canada office space, Public Services and Procurement Canada is developing a plan to achieve a net-zero emissions and climate-resilient leasing portfolio that includes a program for working with landlords.

For more information on greening of federal buildings, consult the <u>Greener Federal Buildings</u> web page.

In addition, many projects funded through the <u>Greening Government</u> <u>Fund</u> are helping reduce GHG emissions from real property operations.

▼ Greening the conventional fleet

The Centre for Greening Government is working with departments to green the federal fleet in line with Greening Government Strategy commitments.

For the conventional fleet, departments are:

- prioritizing zero-emissions options for all new vehicle and mobile equipment purchases where suitable options are available
- starting in 2025, ensuring that 100% of new light-duty fleet vehicle purchases will be zero-emission vehicles (ZEVs) where suitable options are available; until then, at least 75% must be ZEVs or hybrids
- working toward making 100% of the light-duty fleet ZEVs by 2030
- working toward making sure that, by 2030, at least 40% of new commercial medium- and heavy-duty vehicle purchases are ZEVs
- optimizing fleet management to achieve the targets, including by maintaining a long-term strategic fleet-greening plan

For more information on the greening of federal fleets, consult the <u>Federal Vehicles and Fleets</u> web page.

▼ Pathway to net-zero real property and conventional fleet emissions

A breakdown of the pathway to net-zero real property and conventional fleet emissions by 2050 is in Table 1.

Table 1: Projected pathway to net-zero scope 1 and 2 emissions fromreal property and conventional fleet

Action to reduce emissions	Approximate contribution
Reducing greenhouse gas emissions to date (2022–23) to below 2005 levels	39.8%
Using 100% clean electricity in federal operations	15%
Renewing the real property portfolio (for example, disposing of surplus assets, retrofitting existing buildings, introducing energy-efficiency measures, and electrifying heating systems)	25%
Using 100% light-duty zero-emission vehicles by 2030	2.50%
Making the heavy-duty fleet zero-emission	0.50%
Switching to low-carbon fuels from fossil fuels (for example, using renewable natural gas for peak heating times in buildings, using renewable diesel for the conventional marine fleet, and using sustainable aviation fuel for aviation)	10%
Using carbon dioxide removal to address any remaining GHG emissions	up to 10%
Total (approximate)	100%
Note: These percentages are estimates and will be adjusted reg progress is made.	gularly as

▼ Greening the National Safety and Security Fleet

The Centre for Greening Government is working with departments to green Canada's National Safety and Security Fleet (NSSF) in line with Greening Government Strategy commitments.

The NSSF is composed of aircraft, marine vessels and tactical land vehicles operated by National Defence, the Royal Canadian Mounted Police and the Canadian Coast Guard. The Government of Canada is committed to reducing emissions from NSSF operations while providing Canada with effective operational capability. In 2020, Canada was one of the first countries to include NSSF emissions in its 2050 net-zero emissions target. The NSSF will use more environmentally friendly technologies and low-carbon fuels when available, affordable, compatible and operationally feasible. These measures will allow NSSF to decarbonize operations without impacting operational levels, requirements or mission parameters.

Canada is currently modernizing and expanding its NSSF operations to protect Canadian interests at home and abroad. In 2024, Canada established the following interim objectives for the NSSF:

- by 2030, at least 20% of the total volume of annual domestic fuel purchases for NSSF air and marine operations will be low-carbon fuels
- by 2030, the RCMP's NSSF light-duty fleet will comprise 50% ZEVs, increasing to 100% ZEVs by 2035
- by 2040, the average net-emission intensity of all NSSF operations will be reduced by at least 50% on the path to net-zero emissions by 2050; this will be achieved through measures such as lowcarbon fuels, low and zero-emission platforms, and permanent carbon dioxide removal

Departments responsible for the NSSF are developing Operational Fleet Decarbonization Plans outlining how they will reduce their emissions from operations in line with these interim commitments and the overall 2050 target. These plans will be updated every five years and will consider the availability, affordability, compatibility, and operational feasibility of adopting new technologies and solutions. As part of this work, NSSF departments are already adopting best practices to improve efficiency and reduce emissions and environmental impacts in the areas of:

- fuel procurement, including low-carbon fuels
- fleet procurement, including purchasing energy-efficient platforms
- operational efficiency and net-zero emissions research and innovation

The <u>Low-Carbon Fuel Procurement Program</u> has been established to accelerate the use of low-carbon intensity fuels for the government's air and marine fleet operations.

In addition, through the Greening Government Fund, the government is funding multiple projects to purchase low and zero-emissions air, marine and land vehicles. More information on these projects can be found on the <u>Greening Government Fund</u> web page.

▼ Greening procurement and materiel management

The Centre for Greening Government is collaborating with departments and agencies to meet the procurement related commitments of the <u>Greening Government Strategy</u> and the <u>Policy on Green Procurement</u>.

Federal departments are greening their procurement and materiel management activities through various actions:

- implementing existing procurement requirements to reduce operational carbon by focusing on green buildings, electricity and fleet (for example, procuring low-carbon fuels through the <u>Low-Carbon Fuel Procurement Program</u>, the purchase of clean electricity, the purchase of zero-emission vehicles, and the retrofitting of buildings to zero- or low-carbon)
- working to make emissions from the procurement of goods and services net-zero by 2050
- identifying the categories of procurement that have the highest environmental impact, establishing procurement-related criteria by 2025, and implementing the criteria by 2026

- requiring that suppliers provide GHG life cycle assessment reports for high-value procurements, starting in 2025
- for procurements over \$25 million, providing incentives for major suppliers to set a science-based target for reducing emissions and requiring them to disclose GHG emissions
- including criteria that address climate resilience in high-value procurements and in critical services and activities by 2027
- developing and implementing new procurement requirements to reduce embodied carbon by focusing on high value purchases and on categories of goods and services with high environmental impact (concrete, steel, whole asset, IT, fleet, equipment, plastics, fuels)
- continuing to improve the standing offers and supply agreements by incorporating green requirements
- analyzing departmental procurement profiles and focusing on -high impact categories and big areas of spending
- developing guidance, tools and training for employees on green procurement
- updating policies and directives to integrate green procurement; measuring and reporting on progress; and engaging with key internal and external stakeholders, including other green buyers, both domestically, through <u>Buyers for Climate Action</u>, and internationally, through the <u>Greening Government Initiative</u>

Two standards were developed to support green procurement:

 Under the <u>Standard on the Disclosure of Greenhouse Gas</u> <u>Emissions and the Setting of Reduction Targets</u> (effective April 1, 2023), suppliers for procurements over \$25 million are induced to disclose their GHG emissions and to set reduction targets through a recognized Canadian or international initiative or standard. • The <u>Standard on Embodied Carbon in Construction</u> (effective December 31, 2022) establishes requirements to disclose and reduce the embodied carbon footprint of construction projects.

Departments are adopting clean technologies as they green their buildings, electricity, fleet and throughout their procurement. They are also adopting clean technologies through initiatives including:

- the Greening Government Fund
- Innovative Solutions Canada
- the Innovation for Defence Excellence and Security program

For more information on greening procurement, consult the <u>Green</u> <u>Procurement</u> web page.

▼ Adapting to the impacts of climate change

The Government of Canada is committed to enhancing the climate resilience of its critical services and activities by at the latest 2035 and in doing so, minimizing disruptions to its services and activities, and managing financial risks related to the impacts of climate change.

The Centre for Greening Government is working with departments to ensure the resilience of federal government assets, services and activities that Canadians rely on, consistent with <u>Canada's National</u> <u>Adaptation Strategy</u> and the <u>Government of Canada Adaptation Action</u> <u>Plan</u>.

Departments are reviewing and updating their climate risk assessments at least every five years (if necessary) and taking measures to reduce identified significant risks. These measures should:

- be aligned with or integrated into existing departmental risk assessments or business continuity management activities
- take into account all services and activities, focusing on those identified as critical

- include a plan to reduce significant risks
- support the Minister of Finance's reporting requirement under section 23 of the *Canadian Net-Zero Emissions Accountability Act*

Departments are also building the capacity of public service employees to incorporate climate change considerations into their work through guidance, tools and training.

For more information on adaptation and climate resilience, consult the <u>Enhancing resilience to climate change</u> web page.

▼ Developing green policies and working with partners

The federal government is integrating greening government objectives and considerations into relevant Treasury Board policies, including the <u>Directive on the Management of Real Property</u>, the <u>Directive on</u> <u>Procurement</u>, the <u>Directive on the Management of Materiel</u> and the <u>Directive on Security Management</u>.

To ensure transparency for Canadians, the government passed the <u>Canadian Net-Zero Emissions Accountability Act</u> in June 2021. The act enshrines in legislation the Government of Canada's commitment to achieving net-zero GHG emissions by 2050 and provides a framework of accountability and transparency for fulfilling this commitment. The act specifies the requirements for progress reports that include emissions reductions from federal operations.

One of the key oversight tools for measuring compliance with the requirements of the policy suite is the <u>Management Accountability</u> <u>Framework</u> (MAF), which the Treasury Board of Canada Secretariat uses to monitor how departments are meeting expected results. Departmental emissions reductions and green procurement considerations have been integrated into the MAF. The federal government is collaborating with key partners to share best practices and mobilize the collective power of public procurement.

In April 2021, the United States and Canada announced the <u>Greening</u> <u>Government Initiative</u>, a first-of-its-kind effort to engage governments around the world in greening government operations. This international community of practice enables countries to:

- share lessons learned
- promote innovation
- progress toward net-zero carbon government operations

In 2021, <u>Buyers for Climate Action</u> (BCA) was established to help drive the transition to a green, net-zero-carbon economy through collaboration on green procurement. BCA is a coalition of large green buyers who purchase a significant volume of goods and services annually. Members include public organizations such as federal, provincial and municipal governments.

The Centre for Greening Government and the Government of British Columbia co-chair the Pan-Canadian Community of Practice for Government Leadership. This community of practice is a forum for collaboration and information-sharing among federal, provincial and territorial governments on greening government operations. The group meets up to three times a year to discuss various topics, such as greening buildings, fleet, procurement and climate resilience.

The Centre for Greening Government and Canada Post co-chair the Crown Corporations Greening Community of Practice, which shares progress to date on greening plans and activities and supports information-sharing about best practices, innovations, promising practices and other tools related to greening operations. Its goal is to create a community of practice across Crown corporations on greening their operations.

4. Advancing programs to support the transition

The <u>Greening Government Fund</u> supports projects by federal government departments and agencies to reduce GHG emissions in their operations by promoting and sharing innovative approaches. Departments contribute to the fund based on the emissions per year from air travel by their employees.

The federal <u>Low-Carbon Fuel Procurement Program</u> supports the purchase of advanced, low-carbon-intensity liquid fuels (for example, advanced biofuels and synthetic fuels) for the federal air and marine fleet. The program includes NSSF operations, which were responsible for 44% of all direct federal GHG emissions in 2022–23. Transitioning to lowcarbon-intensity liquid fuels is essential to achieving Canada's 2050 targets as it will allow departments to reduce their emissions without impacting operations.

5. Tracking and reporting results

- ▼ In this section
 - The Government of Canada tracks and publishes its GHG emissions
 - <u>The Government of Canada has established an approach to</u> <u>tracking the costs and savings associated with achieving greening</u> <u>targets</u>

The Government of Canada tracks and publishes its GHG emissions.

The Government of Canada tracks and publishes its GHG emissions in the <u>Government of Canada's Greenhouse Gas Emissions Inventory</u> and on <u>Open</u> <u>Data</u> and reports its progress on green procurement through <u>Green</u> <u>Procurement Reporting</u>.

Twenty-eight federal departments reported GHG emissions between 2018– 19 and 2022–23. Data is published for all scope 1 and 2 emissions, including for real property, electricity and fleet. For scope 3 emissions from procurement, the government worked with the International Reference Centre for the Life Cycle of Products, Processes and Services (CIRAIG) to estimate the embodied carbon footprint of the goods and services bought by its central procurement departments: Public Services and Procurement Canada and Shared Services Canada. The CIRAIG report is also published on the <u>GHG inventory site</u>.

Departments also report on their progress through their <u>Departmental</u> <u>Sustainable Development Strategy</u> and outline their departmental actions to support the implementation strategies of the <u>Federal Sustainable</u> <u>Development Strategy</u>.

The Government of Canada has established an approach to tracking the costs and savings associated with achieving greening targets.

Greening federal operations, including buildings and fleet, requires upfront capital investments that can be more expensive than those associated with conventional, higher polluting options. However, the additional upfront capital investments are usually partially or fully offset by savings in operating costs over time, especially when the full cost of GHG emissions is considered.

For more information on how costs and savings from implementing the Strategy are tracked, see the <u>Tracking the costs of and savings from</u> <u>implementing the Greening Government Strategy</u> page.

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