



Treasury Board of Canada
Secrétariat

Secrétariat du Conseil du Trésor
du Canada

Canada

Greening Government Strategy implementation plan and roadmap

Published: 2023-07-10

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Published by Treasury Board of Canada, Secretariat
90 Elgin, Ottawa, Ontario, K1A 0R5, Canada

Catalogue Number: BT22-277/2023E-PDF
ISBN: 978-0-660-67789-7

This document is available on the Government of Canada website at www.canada.ca

This document is available in alternative formats upon request.

Aussi offert en français sous le titre : Plan de mise en œuvre et feuille de route de la Stratégie pour un gouvernement vert

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Introduction

As the owner and manager of the largest fixed asset portfolio in Canada (32,000 buildings; 20,000 engineered assets, such as bridges and dams; and 40,000 vehicles), the Government of Canada has a critical role to play in meeting Canada's climate objectives.

With over \$20 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-carbon and climate-resilient operations, while also reducing environmental impacts beyond carbon, including reductions in waste and water use and improvements to biodiversity. The *Greening Government Strategy: A Government of Canada Directive* specifies greening government commitments for government-owned buildings and fleet, procurement, and adaptation and climate resilience. The strategy was created in 2017 and updated in 2020.

The *Greening Government Strategy* 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 *A Healthy Environment and a Healthy Economy: Canada's Strengthened Climate Plan to Create Jobs and Support People, Communities and the Planet* (2020), *Canada's 2030 Emissions Reduction Plan* (2022), *Achieving a Sustainable Future: Federal Sustainable Development Strategy 2022 to 2026*, and the *Canadian Net-Zero Emissions Accountability Act* (2021).

1. Understanding the federal emissions footprint is step one in greening operations

Scope 1 greenhouse gas (GHG) emissions are the GHGs 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 those generated indirectly from the consumption of purchased energy (electricity, heating and cooling).

Twenty-seven departments own real property and a significant fleet and therefore produce scope 1 and scope 2 emissions. Departments track their scope 1 and scope 2 emissions and report them in the Government of Canada's Greenhouse Gas Emissions Inventory.

Canada's national safety and security (NSS) fleet is responsible for a significant amount of scope 1 emissions. The NSS fleet is composed of aircraft, marine vessels, and tactical land vehicles operated by National Defence, the Royal Canadian Mounted Police and the Canadian Coast Guard. On the pathway to net-zero by 2050, Canada is one of the first countries to include NSS emissions in its 2050 GHG emissions reduction target. This represents a clear commitment to reduce emissions from NSS operations while providing Canada with effective operational capability. In implementing the 2050 target for the NSS fleet, consideration is given to availability, affordability and operational feasibility.

Scope 3 GHG emissions are indirect emissions such as the ones released to make the goods and provide the services purchased by the government (the GHGs released during the life cycle of a good or in the delivery of a service, including along the supply chain). Public servants' commuting and

air travel also fall into the category of scope 3 emissions. An estimate of the federal government's scope 3 emissions is found in the Government of Canada's Greenhouse Gas Emissions Inventory.

2. Establishing targets, commitments, and governance

The Greening Government Strategy 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:

- a. real property, including government-owned and leased real property
- b. mobility (travel and commuting by government employees) and fleet, (the conventional fleet and the NSS fleet)
- c. climate-resilient assets, services and operations
- d. procurement of goods and services
- e. policies and engagement
- f. oversight and performance measurement

Governance: The Centre for Greening Government, within the Treasury Board of Canada Secretariat (TBS), provides leadership toward net-zero, climate-resilient and green Government of Canada operations. The centre coordinates the implementation of the Greening Government Strategy in different ways, including by chairing a senior-level interdepartmental committee and by 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 guidance to support departments in implementing the strategy.

Departments have appointed leads for the development of their Departmental Sustainable Development Strategy that includes greening government commitments. As per the [Directive on the Management of Real Property](#), the [Directive on the Management of Procurement](#), and the [Directive on the Management of Materiel](#), 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

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 [Departmental Sustainable Development Strategy website](#). They also advance more tailored plans and actions, as appropriate, for their real property, fleet, procurement process, and climate-resilience goals.

Greening real property

The Centre for Greening Government is working with departments and agencies 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 taking action, such as:

- developing and maintaining current, net-zero, and climate-resilient real property portfolio plans that identify the most cost-effective pathway to achieve net-zero and climate-resilient real property operations by 2050

- constructing new buildings that are net-zero carbon
- retrofitting buildings using a life-cycle cost-benefit analysis to determine the optimal GHG savings for all major building retrofits, including for significant energy performance contracts (the life-cycle cost approach uses a period of 40 years and a carbon shadow price of \$300 per tonne)
- procuring 100% clean electricity by 2025
- reducing the embodied carbon in the concrete used in major projects
- leveraging opportunities for portfolio rationalization
- sharing facilities
- switching to lower-carbon sources of energy

As the common service provider for leased Government of Canada office space, Public Services and Procurement Canada is developing a zero-carbon, climate-resilient leasing portfolio plan that includes a program for working with landlords.

For more information on green federal office buildings, consult the [Greener Federal Buildings](#) web page.

In addition, through the Greening Government Fund, the government is funding multiple projects to reduce emissions from real property. More information and the list of all participating projects can be found on the [Greening Government Fund](#) website.

Greening the fleet

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

For the conventional on-road fleet, departments are taking action by:

- ensuring that all new executive vehicle purchases are zero-emission vehicles (ZEVs) or hybrids (priority is given to ZEVs)
- ensuring that at least 75% of new light-duty vehicles purchased every year are ZEVs or hybrids (priority is given to ZEVs), with the objective that the fleet will comprise 100% ZEVs by 2030. As of March 2022, departments had purchased more than 1,800 light-duty green vehicles.
- developing financial and market tools for assessing the costs, benefits and availability of light-duty ZEVs
- optimizing fleet management to meet the targets by, for example, exploring options for commercial vehicles, assessing infrastructure needs for charging ZEVs, and applying telematics to analyze usage data on vehicles scheduled to be replaced

The Government of Canada has also committed to reducing emissions from the NSS fleet. (See [section 1](#) of this document for an explanation of the NSS fleet.)

Departments responsible for the NSS fleet are developing operational fleet decarbonization plans outlining how they will reduce their emissions from operations in line with the overall 2050 target. These plans will consider the availability, affordability, compatibility, and operational feasibility of adopting new technologies and solutions. As part of this work, NSS departments are adopting best practices to improve efficiency and reduce emissions and environmental impacts in the areas of:

- fleet procurement, including purchasing energy-efficient aircraft, marine vessels and land vehicles
- operational efficiency and net-zero research and innovation
- fuel procurement, including procurement of low-carbon fuels

The [Low-Carbon Fuel Procurement Program](#) has been established to accelerate the use of low-carbon fuels for air and marine emissions.

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 [Greening Government Fund](#) web page.

For more information on greening of federal fleets, consult the [Federal Vehicles and Fleets](#) 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 provided in Table 1.

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

Action to reduce emissions	Approximate contribution
Greenhouse gas reduction to date (2021–22) below 2005 levels	38.6%
100% clean electricity for federal operations (vast majority by 2025)	15%
Real property portfolio renewal (for example, disposal of surplus assets, retrofits, energy-efficiency measures, and electrification of heating systems)	25%
100% light-duty zero-emission vehicles by 2030	2.5%
Zero-emissions heavy-duty fleet	0.5%
Switching to low-carbon fuels from fossil fuels (for example, renewable natural gas for peak heating in buildings, renewable diesel for conventional marine fleet, and sustainable aviation fuel for aviation)	10%
Carbon removal of any remaining GHG emissions	up to 10%

Total	~100%
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Note: These figures are estimates and will be adjusted regularly as progress is made.

Greening procurement

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

Federal departments are greening their procurement through various actions:

- Implementing existing procurement requirements to reduce operational carbon by focusing on green buildings, electricity and fleet (for example, the Low-Carbon Fuel Procurement Program, the purchase of clean electricity, the purchase of zero-emission vehicles, and the retrofitting of buildings to zero or low-carbon)
- 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 incorporate green requirements into shared procurement instruments, such as standing offers and supply arrangements
- 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 Buyers for Climate Action, and internationally, through the Greening Government Initiative (See the section “The government is developing green policies and working with partners” for more information.)

Two new standards were developed to deliver on green procurement:

- Under the Standard on the Disclosure of Greenhouse Gas Emissions and the Setting of Reduction Targets (effective April 1, 2023), suppliers for procurements over \$25 million are required to disclose their GHG emissions and to set reduction targets through a recognized Canadian or international initiative or standard.
- The Standard on Embodied Carbon in Construction (effective December 31, 2022) requires the disclosure of the carbon footprint of concrete used in federal projects if the project involves using more than 100 m³ of ready-mix concrete. The requirement to disclose covers projects that cost \$10 million or more where design services are solicited on or after December 31, 2022. After December 31, 2024, the requirement to disclose the carbon footprint of concrete will apply to projects costing \$5 million or more. The standard also requires a 10% reduction in the embodied carbon of concrete used in such projects compared to a regional average.

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 [Green Procurement](#) web page.

The government is adapting to climate change

The Centre for Greening Government is working with departments and agencies to ensure the resiliency of the federal government's assets, services, and operations that Canadians rely on, consistent with the [Federal Adaptation Policy Framework](#). Specifically, departments are assessing the risks posed by the impacts of climate change to federal assets, services and operations across the country. To reduce climate risks, departments are incorporating climate change considerations into, for example business continuity management processes, departmental risk planning, program design and delivery considerations or developing climate change adaptation plans. They are also integrating climate change adaptation considerations into the design, construction and operation of all major real property projects and developing climate resilient real property portfolio plans.

For more information on adaptation and climate resilience, consult the [Adaptation to climate change](#) web page.

The government is developing green policies and working with partners

The federal government is integrating greening government objectives and considerations into relevant Treasury Board policies, including the [Directive on the Management of Real Property](#), the [Directive on Procurement](#), the

Directive on the Management of Materiel and the Directive on Security Management.

To ensure transparency for Canadians, the government enacted the Net-Zero Accountability Act in June 2021. The act enshrines in legislation the Government of Canada's commitment to achieve net-zero GHG emissions by 2050 and provides a framework of accountability and transparency to deliver on it. The act specifies the requirements for progress reports on emissions reductions including from federal operations.

One of the key oversight tools for measuring compliance with the requirements of the policy suite is the Management Accountability Framework (MAF), which is used by TBS to monitor how federal 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 Greening Government Initiative, an effort to engage governments around the world in greening government operations. This first-of-its-kind international community of practice enables countries to:

- share lessons learned
- promote innovation
- meet commitments under the Paris Agreement

In 2021, Buyers for Climate Action (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 in procurement categories with high environmental impact. 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.

4. Advancing programs to support the transition

The Greening Government Fund 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 Low-Carbon Fuel Procurement Program 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 focuses on reducing emissions from NSS fleet operations.

Transitioning to low-carbon-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

The Government of Canada tracks and publishes its GHG emissions

These GHG emissions are published in the [Government of Canada's Greenhouse Gas Emissions Inventory](#) and on the [Open Government Portal](#). Twenty-seven federal departments reported GHG emissions between 2018–19 and 2021–22.

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. This data is also published on the [GHG inventory site](#).

Departments also report on their progress through their Departmental Sustainable Development Strategy. This reporting provides more information on what each department is doing and their results.

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 higher-polluting, status quo options. However, greening investments are typically partially or fully offset by operational savings over time, especially when the full cost of GHG emissions is considered.

For more information on the approach to tracking costs and savings from implementing the strategy, see the [Tracking the costs of and savings from implementing the Greening Government Strategy](#) page.

Date modified:

2023-07-11