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Canada

# Evaluation of the Greening Government Fund

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# Evaluation of the Greening Government Fund

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## On this page

- [Introduction](#)
- [Significance](#)
- [Objective](#)
- [Results at a glance](#)
- [Overview](#)
- [Results](#)
- [Recommendations](#)
- [Appendix A: Logic model for the Greening Government Fund](#)
- [Appendix B: List of fund contributors](#)
- [Appendix C: Description of referenced projects](#)
- [Appendix D: Examples of scaling efforts of projects using departmental resources](#)
- [Appendix E: Results achieved by projects selected for case study](#)
- [Appendix F: Management Action Plan](#)

# Introduction

This document presents the evaluation of the Greening Government Fund (GGF) managed under the Government of Canada's Greening Government Strategy (GGS) at Treasury Board of Canada Secretariat. This utilization-focused evaluation was conducted between March and July 2025 by the Internal Audit and Evaluation Bureau, in accordance with the *Policy on Results*.

## Significance

Translates into approximately \$60 million in funding for projects that reduce greenhouse gas emissions (GHGs) in government operations.

## Objective

To evaluate the Treasury Board of Canada Secretariat's Greening Government Fund (GGF).

## Results at a glance

### ► In this section

Greenhouse gas (GHG) emissions from federal facilities, fleets and employee air travel have continued to decline since 2005, primarily due to:

- reduced fleet size
- adoption of electric vehicles
- optimization of real property assets
- actions to make government buildings more energy efficient and low carbon

- the increased use of clean electricity

The GGF has played an effective and important role in this progress by providing seed funding to departments for innovative projects aimed at reducing GHG emissions, while also supporting broader greening initiatives across federal operations.

The evaluation demonstrates that the Greening Government Fund (GGF) achieved its outcomes by:

- enhancing departments' capacity to implement low-carbon solutions
- making low-carbon solutions more accessible to departments with approaches, models, methodologies, and technologies being replicated more broadly

And that the funded departments:

- benefited from the GGF's ability to adapt its funding model in response to challenges to better support their capacity
- operated effectively in an environment created by the GGF that fosters innovation and collaboration
- recognized the GGF as an efficiently managed program, particularly in how it disburses funds and aligns priorities with the Greening Government Strategy (GGS)

The evaluation also highlights opportunities for the GGF to:

- better showcase results achieved by funded departments and agencies
- strengthen mechanisms to track project outcomes beyond their completion

## Recommendations

The program has demonstrated strong performance in both effectiveness and efficiency. To enhance its impact, it is recommended that GGF:

1. centralize and enhance accessibility of final project reports, results and lessons from funded projects with regular updates and summaries
2. connect projects and people to share information and foster dialogue among stakeholders
3. implement a standardized post-project assessment process that includes periodic follow-ups to evaluate long-term impacts, sustainability and the extent to which GGF initiatives catalyze additional resources

## Overview

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### Scope

The scope of this evaluation spans from the GGF's inception in 2019 through 2024.

Performance and efficiency were assessed to measure the extent to which the GGF achieved its immediate <sup>1</sup> and intermediate outcomes:

1. Departments and agencies have improved capacity to deliver low-carbon solutions.
2. Departments and agencies have additional low-carbon solutions available to them.
3. Departments and agencies replicate GGF low-carbon solutions.

See Appendix A for the logic model used for the evaluation.

# Methodology

This evaluation used a utilization-focused approach to help the Office of Greening Government assess whether the GGF was achieving its intended outcomes and functioning as designed. The evaluation is in line with professional evaluation standards, and used a mixed-methods design, with 3 qualitative lines of evidence:

- reviews of documents and administrative data
- key informant interviews (n=12)
- case studies (n=4):
  - Type 1 (n=2): ongoing or complete projects that result in GHG emission reductions in federal operations as a direct result of the project's implementation
  - Type 2 (n=2): ongoing or completed projects that develop tools, methodologies and designs that, when adopted and applied, have the potential to reduce GHG emissions in federal operations (and lever action more broadly) through better evidence-based decision-making and action

| <b>Project type</b> | <b>Category</b>         | <b>Project title</b>                                                                                                               | <b>Department</b>           |
|---------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Type 1              | Real Property           | Bedford Institute of Oceanography Seawater Heating                                                                                 | Fisheries and Oceans Canada |
| Type 1              | Real Property           | Advanced Control Strategies for CSA's Space Centre                                                                                 | Natural Resources Canada    |
| Type 2              | Fleet                   | Navy Ship Platform Exploitation of Energy Data (SPEED)                                                                             | National Defence            |
| Type 2              | Real Property and Fleet | Enabling Portfolio-Wide Deep Retrofits of Buildings and Facilitating Low-Carbon Fleets through Additions to the RETScreen Software | Natural Resources Canada    |

## Program context

The Greening Government Fund (GGF) was designed to support projects that reduce greenhouse gas emissions (GHG) in the Government of Canada's operations. Launched in 2019 as part of the Greening Government Strategy,<sup>2</sup> the GGF aims to create low-carbon, climate-resilient federal operations. The GGF is under the leadership and oversight of the Treasury Board of Canada Secretariat's Centre for Greening Government.

The GGF targets projects that not only reduce GHG emissions in federal operations, but are innovative, can be reproduced across the government, or that pursue solutions in areas where GHGs may be difficult to reduce. The GGF considers all funded projects that make progress toward these goals as successful.

Departments and agencies contribute to the GGF's total available funding through both mandatory and voluntary contributions (Appendix B). Contribution to the GGF is mandatory for Departments and agencies that generate more than 1 kilotonne of GHGs per year from employee air travel. The amount each DA must contribute per tonne is indicated in the Greening Government Strategy and the total contribution amount is based on actual air travel data provided by Public Services and Procurement Canada.

Departments and agencies seeking funding for projects that meet the GGF criteria must submit first an Expression of interest and, if deemed suitable, a full project proposal for consideration. An interdepartmental Technical Review Committee reviews and scores each application, agrees on rankings, and recommends the best proposals for approval by the GGF.

Projects approved for funding are required to enter an MOU with the GGF, which outlines the roles and responsibilities of each party, the financial transfer mechanism, and the reporting requirements. Projects are required

to provide the GGF with a written progress summary at the mid- and end-year points, as well as a final project report upon project completion. GGF provides templates for these reports, which include information on project progress, lessons learned, and financial status.

By the end of fiscal year 2023–2024, the GGF received 253 project proposals totalling \$310.2 million in requested funds — over 6 times the amount GGF could commit. This is evidence of the GGF’s profile and relevance to the Government of Canada.

## Results

► In this section

### **Performance: Achievement of outcomes**

#### **To what extent have departments and agencies improved capacity to deliver low-carbon solutions?**

Building capacity helps departments and agencies to deliver low-carbon solutions by creating a learning environment, promoting teamwork and information sharing, and ensuring adequate resources for successful project implementation.

### **Conclusion**

Funded departments and agencies had improved capacity to deliver low-carbon solutions and were supported with comprehensive guidance, timely support and collaborative approach. Additionally, GGF projects attracted supplementary resources, which enhanced their impact. While the GGF was effective in building capacity, opportunities remain for it to further improve its reach and effectiveness.

# Findings

## Level of understanding

- All lines of evidence confirmed that the GGF provided valuable support to departments and agencies—particularly by offering guidance that helped them craft strong proposals and enhance their understanding of practical, feasible low-carbon solutions. Key forms of support included:
  - guidance materials, including a methodology for estimating GHG emissions, a scoring matrix, and priority areas
  - tailored funding and guidance to streamline the application process with lighter review and faster approval for less complex, lower-cost projects (under \$100,000)
  - streamlining the approval process by implementing a two-phase EOI process, allowing for earlier feedback on proposals and improving overall responsiveness
  - regular engagement through info sessions, webinars, presentations, and meetings
  - proposal development feedback provided between the EOI and full proposal stages to strengthen applications
- Respondents also indicated that they need more guidance on what constitutes an appropriate project size, and how funding amounts should correspond to the expected impact of a project.

## Sharing results

- Documentary evidence showed that departments and agencies actively shared insights and best practices through internal networks, interdepartmental groups (for example, the Green Fleet Working Group), and greening coalition initiatives like the Buyers for Climate Action (BCA), which promotes green procurement.

- Review of EOIs and project proposals show that several projects were built on previously funded initiatives leveraging existing impacts and, in some cases, scaling them. For example, SPEED 2.0 <sup>3</sup> expanded on the original SPEED project, while the small high-temperature heat pump (HTHP #1), initially tested successfully, was later advanced through the development of the High-Temperature Heat Pump Pre-Feasibility Tool for Building Retrofits and the High-Temperature Heat Pump Demonstration Projects. These instances of impact mobilization and scaling were confirmed through stakeholder interviews. <sup>4</sup>
- According to key informants, Departments and agencies also benefited from international collaboration, including initiatives within the Five Eyes community.
- While the GGF has supported knowledge sharing through committees, working groups, and external platforms like the Real Property Institute of Canada (RPIC), some interviewees noted that accessing final project results and lessons from others, remains difficult.
  - Departments and agencies submit regular reports to the GGF, but many are unclear to what extent their results are shared and used by others. Awareness is often limited to direct partners and follow-up actions within their own networks.
  - Interviewees and case study participants suggested hosting an in-person conference or forum to present results and foster networking opportunities.

## **Collaboration**

- All lines of evidence confirm that Departments and agencies are actively collaborating on greening initiatives, both within and beyond the GGF framework. Notably, some projects initiated through the GGF have continued to evolve and expand, aligning with broader environmental sustainability efforts. This demonstrates the GGF's

potential to serve as a catalyst for more comprehensive greening initiatives. Examples include the Sable Island Sustainable Microgrid Project and AMAZE.

- Collaboration often involved sharing expertise and resources across Departments and agencies and with partner organizations.
- The GGF has encouraged joint proposals, particularly when multiple Departments and agencies pursue similar goals (for example, mechanical composters, greening standards, ground source heat pumps).
  - Case studies showed that funded Departments and agencies frequently work together and use complementary initiatives, such as the RETScreen program, to support carbon neutrality planning.
- Interviewees noted that while Departments and agencies manage their own operations, they regularly consult with experts from Natural Resources Canada, Environment and Climate Change Canada, and Public Services and Procurement Canada for specialized guidance.

### **Improve DA resources for low carbon solutions**

- Strong evidence shows that the GGF has enabled Departments and agencies to attract additional resources to support low-carbon solutions. Moreover, many projects extended beyond their original timelines with continued departmental or renewed GGF's funding, indicating strong performance.
- Departments and agencies consistently used the GGF as seed funding to launch innovative projects, often combining it with other sources such as the Green Income Fund, in-kind contributions, and support from other government levels and agencies.
- The GGF was widely viewed as a catalyst for action. While its contribution typically covered around 20% of project costs, it played an important role in enabling departmental initiatives.

- Departments and agencies frequently invested additional resources to scale or sustain GGF projects. Some received a second round of the GGF's support, while others relied on internal funding.
- Appendix D presents examples of projects that were scaled up using departmental resources, building on their original GGF-funded initiatives.

## **To what extent do departments have additional low-carbon solutions available to them?**

### **Conclusion**

The GGF has expanded the range of low-carbon solutions available to departments and agencies, enabling them to explore and implement technologies like electric vehicles, solar panels and electrified heating. It has supported feasibility studies, pilot projects and tools that help departments and agencies plan and act on emissions reductions. These initiatives demonstrated practical approaches to greening operations.

### **Findings**

#### **Solutions available to Departments and Agencies**

- The document review demonstrated that the GGF has played a critical role in expanding departments and agencies' access to low-carbon solutions. The GGF supported departments and agencies by:
  - providing a streamlined selection process
  - aligning the call for proposals with the strategic objectives of the GGS
  - offering targeted funding
  - providing dedicated support during proposal development
  - addressing implementation challenges on funding and timing

- Evidence from case studies and document review shows that type 2 projects (on the sample selected) delivered practical technologies, methods and solutions that could contribute to emissions reductions—such as installing solar arrays and transitioning from fossil fuel-based systems to electrified heating alternatives
- Low-carbon solutions available to departments and agencies include:
  - emerging technologies and solutions that resulted from viable-form pilot projects
  - existing technologies not yet widely adopted in government operations, such as the procurement of electric vehicles or installation of solar panels on government buildings
  - tools like the Clean Energy Management Software platform (RETScreen),<sup>[5]</sup> which allow departments and agencies to estimate the GHG emissions of their real property portfolios
  - initiatives like the Life cycle Assessment (LCA) project to explore innovative materials like low-carbon concrete—helping departments and agencies evaluate environmental impacts across the full life cycle of construction materials
- Evidence from case studies and interviews further underscores the GGF's impact. Many projects would not have been possible—or would have been significantly delayed, scaled down, or been less impactful—without the GGF. This was especially true for initiatives involving new technologies or research. Examples include:
  - the RCMP's electric vehicle pilot project may have occurred eventually, but the GGF funding enabled earlier implementation
  - the Defence Research and Development Canada's SPEED project would have been reduced in scope and less impactful without the GGF's funding
  - some departments and agencies lacked the internal capacity to hire specialized personnel (such as scientists) without the GGF,

since core budgets were typically tied to specific mandates such as R&D

## **Results demonstrate viable solutions to departments and agencies**

- Evidence from document reviews and case studies indicates that while some low-carbon solutions are both practical and scalable for greening operations, others contributed by informing or influencing future initiatives—such as micro-grid, renewable energy, or pilot projects—prompting departments and agencies to adapt approaches, technologies or tools to better meet their needs. Additionally, interview findings revealed that certain solutions were not viable due to constraints related to readiness, technology, timing and funding.
- Examples of projects that adapted the approach, technology or tool to their needs are:
  - the RCMP net-zero carbon detachment projects have resulted in a new national standard when constructing new small detachments across Canada
  - Parks Canada’s solar panel-related work has allowed the agency to further expand its use of such technology and expand on efforts to implement microgrids with additional funding
  - micro-grid and renewable energy projects
- Appendix E presents the main results of the projects selected for case study analysis, along with the tools, approaches and technologies developed.

## **Challenges in implementing low-carbon solutions**

The following challenges are commonly experienced by GGF initiatives during implementation:

- High upfront costs and risks make it difficult for departments and agencies to invest in unknown low-carbon initiatives

- Customization challenges arise when adapting solutions to the unique needs of each DA
- Limited interdepartmental awareness of existing or past solutions hinders knowledge sharing
- Broader operationalization of solutions is hindered by budget constraints that limit follow-up phases
- Need for more sustained funding to bring projects to completion
- Some departments and agencies have implemented only small-scale projects that are difficult to expand

## **To what extent do departments replicate GGF low carbon solutions?**

### **Conclusion**

The GGF supports replicability by encouraging departments and agencies to adapt successful low-carbon projects to their own contexts. Evidence showed that some departments and agencies have already implemented or plan to implement modified versions of past projects. Yet barriers persist, including limited awareness of viable low-carbon solutions and the resources needed to implement them, reflecting broader systemic challenges in adopting low-carbon initiatives.

### **Findings**

#### **Replication of GGF projects**

- Evidence from interviews and case studies showed that replicating GGF projects is challenging due to diverse departmental mandates, locations and GHG reduction requirements. As a result, replication typically requires adaptation and includes reusing successful ideas, approaches and technologies.

- Documentary and interview data showed that viable, proven solutions are key to encouraging uptake in departments and agencies that can adapt and invest in solutions relevant to their departmental contexts. Examples of replication are:
  - RCMP plans to expand its use of electric vehicles and net-zero carbon detachments based on successful GGF projects
  - Fisheries and Oceans Canada is applying lessons from a seawater heating project at the Bedford Institute of Oceanography to implement a similar geothermal solution at another facility
  - Natural Resources Canada enhanced its RETScreen software with GGF support, improving GHG modeling and expanding recommended greening solutions. The tool is currently used by federal departments and agencies to report and track GHG emissions, develop greening plans and implement low-carbon solutions
- All lines of evidence pointed to resource availability and awareness as the primary barriers to replicating proven solutions.
  - Even in departments and agencies that have piloted projects, adoption was slow due to long implementation timelines
  - Some departments and agencies may not have fully recognized the long-term cost savings and impact of low-carbon solutions given how recently their projects have been completed
  - Showing a proven return on investment is an important factor for improving management buy-in to encourage further investment in and replication of GGF projects
  - Scaling implementation across the government requires greater investment, including stronger central policy support from Treasury Board of Canada Secretariat
- All interviewees agreed that conditions supporting replicability are:

- sharing of project results and lessons learned to increase awareness of completed GGF projects
- cross-departmental collaboration during proposal development
- Most interviewees agreed that the GGF can strengthen replicability by:
  - playing a more active role in connecting departments and agencies with similar needs (such as green heritage buildings)
  - supporting long-term funding and strategic integration of smaller projects that are essential to achieve broader, scalable impact
- Most program representatives also noted that developing a post-project survey could help identify challenges, assess the program's impact and strengthen future support.

## **Performance: Efficiency**

### **To what extent was the GGF able to distribute funds efficiently?**

#### **Conclusion**

The GGF appears to operate efficiently, allocating most of its funds directly to project support, with minimal administrative costs, including salaries. Fund distribution was smooth, with respondents reporting timely disbursements and effective collaboration to resolve issues. While the application process was effective, demand significantly exceeded available supply. To add efficiency to operations, GGF averted lapses and reprofiled funds and helped some departments and agencies that faced departmental project-related issues.

#### **Findings**

##### **Distribution and management of funds**

- The number of application reviews and management activities has been optimized despite an increase in reported interest. This was achieved through streamlined processes, such as introducing an EOI to reduce volume of full proposals needing review, incentivizing joint submissions, and offering micro-funding for smaller projects with lighter reviews.
- The application process was seen to be efficient and effective, being well regarded by the applicants.
- Between 2019–20 and 2024–25, the GGF maintained low administrative costs, averaging just 3.79% of its total \$49.6 million budget, adding to the program’s overall efficiency.
  - Relative to fixed resources (4 FTEs), these improvements supported the achievement of intended outcomes. Resources were allocated strategically to maximize impact—enhancing proposal success rates and improving access to funds for small, less complex projects.
- During the same period, the GGF approved funding to 94 projects <sup>5</sup> through signed MOUs. While initial requests for these projects totaled \$72.5 million, scope adjustments reduced the final approved amount to \$56.3 million, which was fully committed.
- According to the document review, the GGF reprofiled funds to prevent lapsing and help departments and agencies sustain projects during funding shortfalls. This included providing small top-ups upon request and helping departments and agencies consolidate underfunded projects into fewer, more viable ones. Most respondents reported receiving funds in a timely manner, with few concerns.
- Some respondents noted minor delays, which, when combined with internal departmental processes, created challenges for project delivery.
- Some participants identified two challenges:

- Funding structure: Certain projects would have benefited from lump sums than payments spread across multiple fiscal years.
- Use of funds for salaries: Greater clarity and flexibility in using funds for salaries would have helped streamline internal processes for some recipients.

## Recommendations

The program has demonstrated strong performance in both effectiveness and efficiency. To enhance its impact, it is recommended that the GGF:

1. centralize and enhance accessibility of final project reports, results and lessons from funded projects with regular updates and summaries
2. connect projects and people to share information and foster dialogue among stakeholders
3. implement a standardized post-project assessment process that includes periodic follow-ups to evaluate long-term impacts, sustainability and the extent to which GGF initiatives catalyze additional resources

## Appendix A: Logic model for the Greening Government Fund

## **Long-term outcome**

**Departments and agencies generate less GHG emissions and progress toward net-zero emissions**

## **Intermediate outcomes**

**Departments and agencies replicate GGF-funded low-carbon solutions**

## **Immediate outcomes**

**Departments and agencies have improved capacity to deliver low-carbon solutions**

**Departments and agencies have additional low-carbon solutions available to them**

**Departments and agencies are aware of low-carbon solutions**

## **Reach**

**Functional communities (real property, fleet, procurement and materiel management) that work to green government operations**

**Departments and agencies that contribute to the GGF**

## **Outputs**

**Program management documents**

**Award funding to projects**

**MOUs and financial transfers (supps B, ARLU)**

**OGD project deliverables**

**Stakeholder meetings, discussions and information exchanges**

**Communication products (web, GCpedia, reports)**

|                                         |
|-----------------------------------------|
|                                         |
| <b>Committee engagement (ADM, GSTs)</b> |

## **Activities**

|                                            |
|--------------------------------------------|
| <b>Program planning and administration</b> |
|--------------------------------------------|

|                                        |
|----------------------------------------|
| <b>Application and proposal review</b> |
|----------------------------------------|

|                                              |
|----------------------------------------------|
| <b>Budget management and MOU development</b> |
|----------------------------------------------|

|                                     |
|-------------------------------------|
| <b>Monitor progress and results</b> |
|-------------------------------------|

|                           |
|---------------------------|
| <b>Analyze and advise</b> |
|---------------------------|

**Share lessons learned**

**Consult and engage with stakeholders**

## **Appendix B: List of fund contributors**

1. Agriculture and Agri-food Canada
2. Canada Border Services Agency
3. Canada Revenue Agency
4. Canadian Food Inspection Agency
5. Canadian Space Agency
6. Canadian Heritage
7. Correctional Service Canada
8. Crown-Indigenous and Northern Affairs Canada
9. Department of Finance Canada
10. Department of Justice Canada
11. Employment and Social Development Canada
12. Environment and Climate Change Canada
13. Fisheries and Oceans Canada
14. Global Affairs Canada
15. Health Canada
16. Immigration, Refugees and Citizenship Canada
17. Indigenous Services Canada
18. Innovation, Science and Economic Development Canada
19. National Defence
20. National Research Council Canada

21. Natural Resources Canada
22. Natural Sciences and Engineering Research Council of Canada
23. Parks Canada
24. Privy Council Office
25. Public Health Agency of Canada
26. Public Safety Canada
27. Public Services and Procurement Canada
28. Royal Canadian Mounted Police
29. Shared Services Canada
30. Transport Canada
31. Treasury Board of Canada Secretariat
32. Veterans Affairs Canada

## Appendix C: Description of referenced projects

### Advanced Microgrids towards Arctic Zero Emissions (AMAZE).

- Advanced Microgrids towards Arctic Zero Emissions (AMAZE) targets GHG reductions at remote northern and arctic federal facilities (>60°N) with a focus towards modernizing the power system for the North Warning System (NWS) with microgrid and distributed energy resource technologies – de-risk, deploy and enable green procurement practices.

### Advanced Microgrids towards Arctic Zero Emissions 2 (AMAZE 2).

- AMAZE 2 builds on the original AMAZE project and is funded through Canada's NORAD modernization plan under the "Powering the North" initiative. It is a multi-departmental collaboration aimed at de-risking emerging technologies and enabling sustainable civilian applications in the Arctic. Key activities include the deployment of a hybrid microgrid system for real-world testing and the continued advancement of

innovations at National Resource Council of Canada's microgrid test facility.

#### Canadian low-emission aviation program (LEAP).

- Assess the feasibility of applying hybrid and/or hydrogen electric propulsion and energy technologies to the Royal Canadian Air Force National Safety and Security air fleet and the Transport Canada administrative air fleet.

#### Deploying Zero-Emission and Clean Fuel Powered Commercial and National Safety & Security Vehicles – From Assessment to Replication (RCMP EV pilot)

- Identify, procure, deploy and evaluate zero-emission vehicles for the light-duty National Safety and Security fleet segment.

#### Enabling portfolio-wide deep retrofits of buildings and facilitating low-carbon fleets through additions to the RETScreen software

- Enhance the RETScreen software to enable it to capture feasibility studies involving “deep retrofit technologies.”

#### High-Temperature Heat Pump for District Energy Systems

- Develop, design and test a prototype water-to-water heat pump that produces high-temperature heat (80+°C) from mid- to low-temperature heat sources (0°C to 30°C).

#### High-Temperature Heat Pump Pre-Feasibility Tool for Building Retrofits

- Provide technology options, increase awareness and accelerate adoption of leading-edge high-temperature heat pump solutions for hydronic space heating system decarbonization and retrofit projects in federal buildings.

#### Low-carbon assets through life cycle assessment initiative

- Develop a life cycle inventory database and assessment guidelines to track a built asset's life cycle carbon and total cost of ownership.

#### Sable Island Sustainable Microgrid

- Target GHG reductions at remote northern and arctic federal facilities through an innovative integrated systems approach that includes variable speed generators, thermal energy management, renewable energy systems and advanced microgrid controls.

#### Ship Platform Exploitation of Energy Datasets (SPEED).

- Optimize energy efficiency and reduce GHG emissions for naval platforms.

#### Ship Platform Exploitation of Energy Datasets 2.0 (SPEED 2.0).

- Optimize energy efficiency and reduce GHG emissions for naval ship platforms through the development of ship energy machine learning and physics-based models and exploration of a ship energy digital twin for reduced fuel use.

#### Net-Zero Carbon Detachment Re-Useable Designs – Small Detachment

- Develop a net-zero carbon small detachment design for the RCMP that minimizes construction costs and can be replicated across the country.

## Appendix D: Examples of scaling efforts of projects using departmental resources

| Department       | Project                                                   | Scaling efforts <sup>1</sup> |
|------------------|-----------------------------------------------------------|------------------------------|
| National Defence | Advanced Microgrids towards Arctic Zero Emissions (AMAZE) | Expansion to AMAZE 2         |

| Department                                                                                                                                                                                                                                                                                                                                                              | Project                                                                                                                           | Scaling efforts <sup>1</sup>                                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| National Research Council Canada                                                                                                                                                                                                                                                                                                                                        | Canadian low-emission aviation program (LEAP)                                                                                     | Creation of the hydrogen flight research program                                    |
| National Research Council Canada                                                                                                                                                                                                                                                                                                                                        | Low Carbon Assets Through Life Cycle Assessment <sup>2</sup>                                                                      | Creation of the Platform to Decarbonize the Construction Sector at Scale initiative |
| RCMP                                                                                                                                                                                                                                                                                                                                                                    | Net-Zero Carbon Detachment Re-useable designs – Small detachment design                                                           | Adoption of a national standard                                                     |
| Natural Resources Canada                                                                                                                                                                                                                                                                                                                                                | Enabling Portfolio-Wide Deep Retrofits of building and Facilitating Low-Carbon Fleets through Additions to the RETScreen Software | Creation of the GHG reduction tools                                                 |
| <p><sup>1</sup> The evaluation did not include data on the additional resources allocated by DA to the programs, nor quantify the value of these expansions or scaling efforts.</p> <p><sup>2</sup> This project leveraged a total of \$180 million for Phase 2, which led to the launch of the Platform to Decarbonize the Construction Sector at Scale initiative</p> |                                                                                                                                   |                                                                                     |

## Appendix E: Results achieved by projects

# selected for case study

| Project                                               | Results                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RETScreen software                                    | <p>The RETScreen team developed new tools that automatically integrate more detailed energy data from utilities and meters, enabling real-time monitoring of energy use. This advancement supports key Canadian government agencies—such as DND—in more effectively managing electricity and fuel consumption across their facilities.</p> <p>As of 2025, all federal departments and agencies used RETScreen to report and track GHG emissions for more than 20 million m<sup>2</sup> of real property and tens of thousands of fleet vehicles.</p> <p>The tool enables low-carbon asset planning, project tracking, and deep retrofits across federal building portfolios. It supports the Government of Canada’s transition to low-carbon fleets.</p> <p>Software enhancements are expected to help departments achieve up to 190 kt CO<sub>2</sub>e in annual reductions by 2050.</p> |
| Ship Platform Exploitation of Energy Datasets (SPEED) | <p>Developed a comprehensive whole-of-ship energy model for Royal Canadian Navy (RCN) vessels to support energy efficiency decision-making.</p> <p>Created a ship energy audit methodology applicable across all naval platform classes.</p> <p>Acquired new knowledge and expertise in ship energy efficiency approaches—previously unavailable in the Government of Canada—to support RCN decarbonization efforts. These approaches are now being applied to other initiatives, such as the Canadian Patrol Submarine Program and Arctic Offshore Patrol Vessels.</p> <p>Leveraged this work through collaboration with international allies via the Five Eyes Science and Technology forum (FYEY S&amp;T).</p>                                                                                                                                                                         |

| Project                                                    | Results                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Advance Control Strategies (ACS)                           | <p>The implementation of the project results delivered 231 tonnes of CO<sub>2</sub>e in immediate GHG reductions. Over a 10-year period, cumulative reductions are expected to reach 2,310 tonnes of CO<sub>2</sub>e—more than double the initial estimate.</p> <p>Achieved a 79% reduction in emissions from the building's heating plant.</p> <p>Required no major capital investment and resulted in only a 0.3% increase in energy costs.</p> <p>NRCan enhanced its expertise in decarbonizing heating plants using natural gas and electric boilers. The project produced user-friendly software tools that help identify and correct inefficiencies to reduce natural gas use for space heating.</p> <p>These tools will be made available on NRCan's website for use by other federal departments.</p> |
| Low Carbon Assets through Life Cycle Assessment (LCA/LCA2) | <p>Launched the Platform to Decarbonize the Construction Sector at Scale initiative.</p> <p>Support NRC's contribution to the CAC (cement association of Canada)/ISED Roadmap to Net-Zero Carbon by 2050 which helped the cement and concrete industries get organized to decarbonize.</p> <p>LCA2 has stimulated foreign investment in Canada.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## Appendix F: Management Action Plan

### ► In this section

The Centre for Greening Government, Treasury Board of Canada Secretariat (TBS), has reviewed the evaluation report and agrees with the recommendations. Proposed actions to address the recommendations of the report are outlined in the table below.

## Recommendation 1

Centralize and enhance accessibility of final project reports, results and lessons from funded projects with regular updates and summaries.

### Management response

The Centre for Greening Government agrees. The GGF team will improve how it shares information with departments by enhancing its online document repository for easier access. This will improve awareness of low-carbon solutions and help departments adopt and replicate effective approaches.

| Proposed actions for recommendation 1                                                                                                                                                                                                                                                                                  | Start date      | Targeted completion date | Office of primary interest          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------|-------------------------------------|
| Improve the GGF GCpedia page to serve as the central repository for GGF results and resources. The site will include: <ul style="list-style-type: none"><li>• Summaries of completed projects with key results and lessons learned</li><li>• Links to documents and resources developed through GGF projects</li></ul> | January 5, 2026 | June 30, 2026            | Centre for Greening Government, TBS |

## Recommendation 2

Connect projects and people to share information and foster dialogue among stakeholders.

### Management response

The Centre for Greening Government agrees. The GGF team will work with existing interdepartmental networks to enhance the sharing of key information and foster improved dialogue among stakeholders. This will support targeted dissemination of project results to those most likely to replicate projects. The GGF team will also facilitate webinars as needed on specific GGF projects or topics, leveraging existing platforms (i.e. NRCan Greening Government Office) and training events where possible.

The GGF will also launch an online hub for employees to share ideas, find partners, and explore ways to apply project results in their own work. These changes will help departments apply lessons learned and build on successful approaches.

| <b>Proposed actions for recommendation 2</b>                                                                                                                                                                                                                                                                                                                                                                              | <b>Start date</b> | <b>Targeted completion date</b> | <b>Office of primary interest</b>   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------|-------------------------------------|
| Launch an online GGF team collaboration space on GCXchange where departments can share best practices, exchange ideas, and connect with potential partners.                                                                                                                                                                                                                                                               | April 1, 2026     | September 30, 2026              | Centre for Greening Government, TBS |
| Improve GGF project dissemination and collaboration by: <ul style="list-style-type: none"> <li>• Regular participation in interdepartmental working groups and committees.</li> <li>• Collaborating with federal partners such as the NRCan Greening Government Office to share GGF results and connect employees with project information that supports replication and wider uptake of low-carbon solutions.</li> </ul> | April 1, 2026     | March 31, 2027                  | Centre for Greening Government, TBS |

## **Recommendation 3**

Implement a standardized post-project assessment process that includes periodic follow-ups to evaluate long-term impacts, sustainability and the extent to which GGF initiatives catalyze additional resources.

### **Management response**

The Centre for Greening Government agrees. The GGF Secretariat will introduce a standardized post-project completion process to follow up on the long-term impacts of GGF projects and identify opportunities to improve the program. This process will include the development of a questionnaire which will be distributed regularly (frequency to be determined after completion of the pilot) to project leads. Analysis of the results will be shared with senior management, the GGF DG Advisory Committee, and the Greening Government ADM Steering Committee to help drive continuous improvement.

| <b>Proposed actions for recommendation 3</b>                                                                                                                                                                                                                                                                                                                                    | <b>Start date</b>                                                             | <b>Targeted completion date</b>                                          | <b>Office of primary interest</b>          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------|
| <p>Introduce a standardized post-project completion process consisting of the following:</p> <ul style="list-style-type: none"> <li>• Pilot a questionnaire to gather information on GGF projects completed prior to fiscal year 2025-2026.</li> <li>• Analyze results to identify key insights and disseminate information with senior management and stakeholders.</li> </ul> | <p>November 30, 2025 (pilot questionnaire)<br/>January 5, 2026 (analysis)</p> | <p>March 31, 2026 (pilot questionnaire)<br/>June 30, 2026 (analysis)</p> | <p>Centre for Greening Government, TBS</p> |

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## Footnotes

- 1 The outcome on awareness of low-carbon solutions was analyzed under capacity.
- 2 Greening Government Strategy (GGS) is an initiative by the Government of Canada aimed at reducing emissions and promoting sustainability. The GGS lays out the roadmap to achieve net zero government operation by 2050 for the Government of Canada.
- 3 See Appendix C for short descriptions of all projects referenced in this evaluation report.

- 4 See Appendix D for examples of scaling efforts of projects using departmental resources.
  - 5 Of all projects that reached the MOU stage with committed funds, only two did not proceed due to factors unrelated to GGF—one was internally reallocated to another GGF project, while in the other case, the receiving department retained the funds without reassignment.
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