



# Public Services and Procurement Canada (PSPC)

## Real Property Climate Change Activities Support Deck for Briefings

RPS-TSSL-GSGD-CAGE-NCOE

October, 2023



# Policy context: Federal climate change commitments

**Reduce GHG emissions from federal operations**

**Greening Government Strategy**  
From: Treasury Board of Canada Secretariat

In Canada and abroad, the effects of climate change are becoming evident. Impacts such as coastal erosion; thawing permafrost; increases in heat waves; droughts and flooding; ecosystem changes; and risks to critical infrastructure; and food and water security are already being felt in Canada and globally. The science is clear that human activities are driving unprecedented changes in the earth's climate, which pose significant risks to human health, security, and economic growth.

Response to climate change requires action to:

1. reduce greenhouse gas (GHG) emissions to the atmosphere and
2. increase the resiliency of assets, services, and operations to adapt to the changing climate.

**Greenhouse gas (GHG) emissions**

**Direct (Scope 1) and indirect (Scope 2) GHG emissions from government operations**

- The Government of Canada will reduce Scope 1 and Scope 2 GHG emissions from federal government facilities and fleets by 80% below

**Mobility and fleets**

The government will adopt low-carbon mobility solutions, deploy supporting infrastructure in its facilities, and modernize its fleet as follows:

- Starting in the 2019 to 2020 fiscal year, 75% of

**NATIONAL REAL PROPERTY SERVICES 2016-19 Business Plan**  
Putting Strategy into Motion

DRAFT 2016 08 23/17

PRIDE IN SERVICE • FAITH IN PEOPLE • EXCELLENCE IN DELIVERY

**PSPC Carbon Neutral Portfolio Plan**

ACHIEVING A  
**SUSTAINABLE FUTURE**

A FEDERAL SUSTAINABLE DEVELOPMENT STRATEGY FOR CANADA  
2019 TO 2022

**2017 Greening Government Strategy 80% GHG reduction target**

**PAN-CANADIAN FRAMEWORK**

**on Clean Growth and Climate Change**

Canada's Plan to Address Climate Change and Grow the Economy

**Government leadership through ambitious targets, GHG emissions reduction and clean procurement**



**Keep the global temperature increase to well below 2 degrees Celsius**

# Section 1: Climate Mitigation

Climate Change Mitigation refers to **efforts to reduce or prevent emission of greenhouse gases**. Mitigation can mean using new technologies and renewable energies, making older equipment more energy efficient, or changing management practices or consumer behavior

- Net-Zero Portfolio Plans
- 100% clean electricity
- Low carbon operations and decarbonisation
- Leased facilities
- Energy Performance Contracting
- Buy clean strategy (embodied carbon)
- EVCS infrastructure

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# Net-zero GHG Emissions by 2050

FY 2022-23



PSPC reduction in GHG emissions from 2005-06 baseline

## Major Initiatives affecting portfolio performance



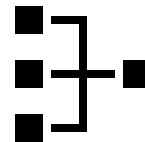
Improvement to Electricity Grids



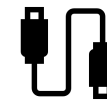
PSPC Portfolio Actions (Office Long Term Plan)



Major Capital Projects



ESAP DES Modernization



100% Clean Electricity



Renewable Energy Certificates (RECs)

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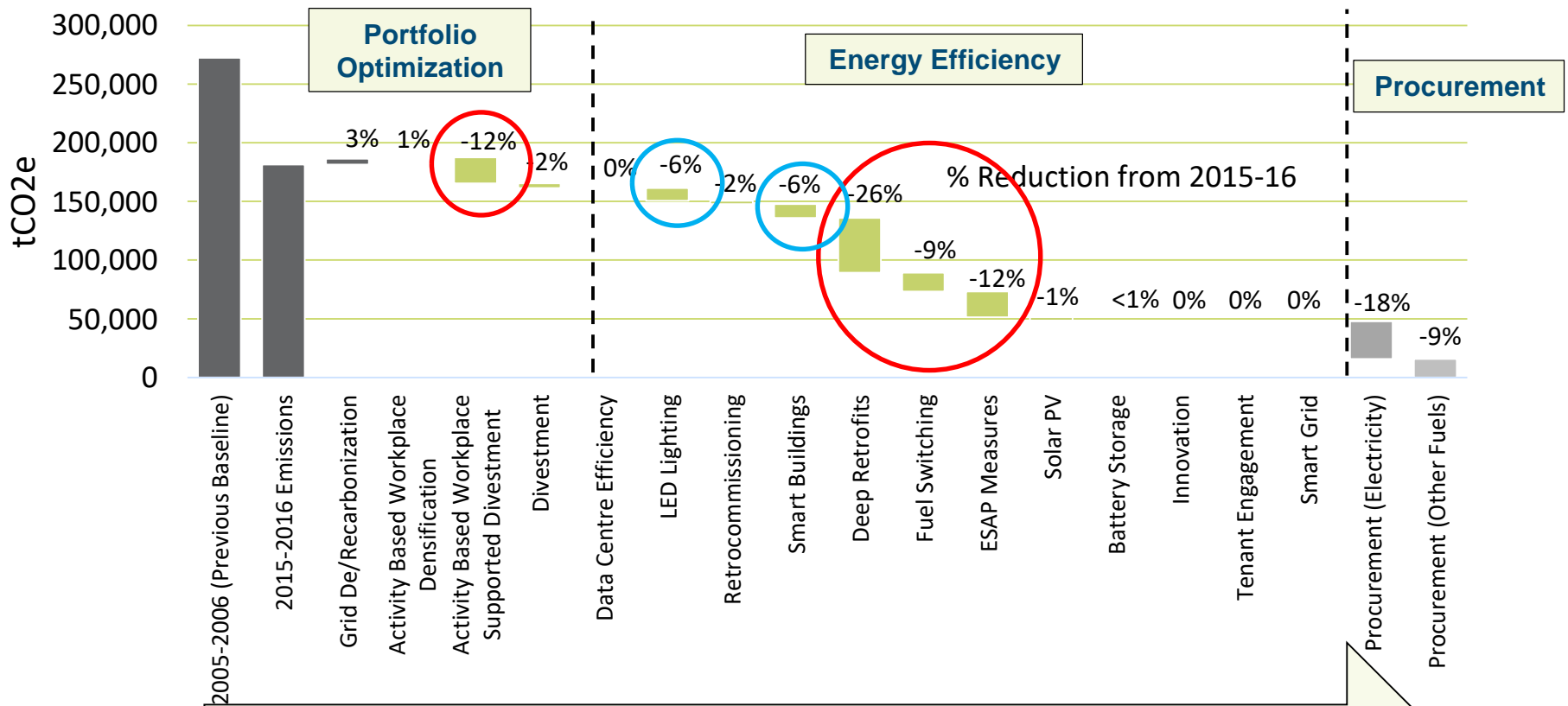


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# PSPC Carbon Neutral Portfolio Plan (2017)

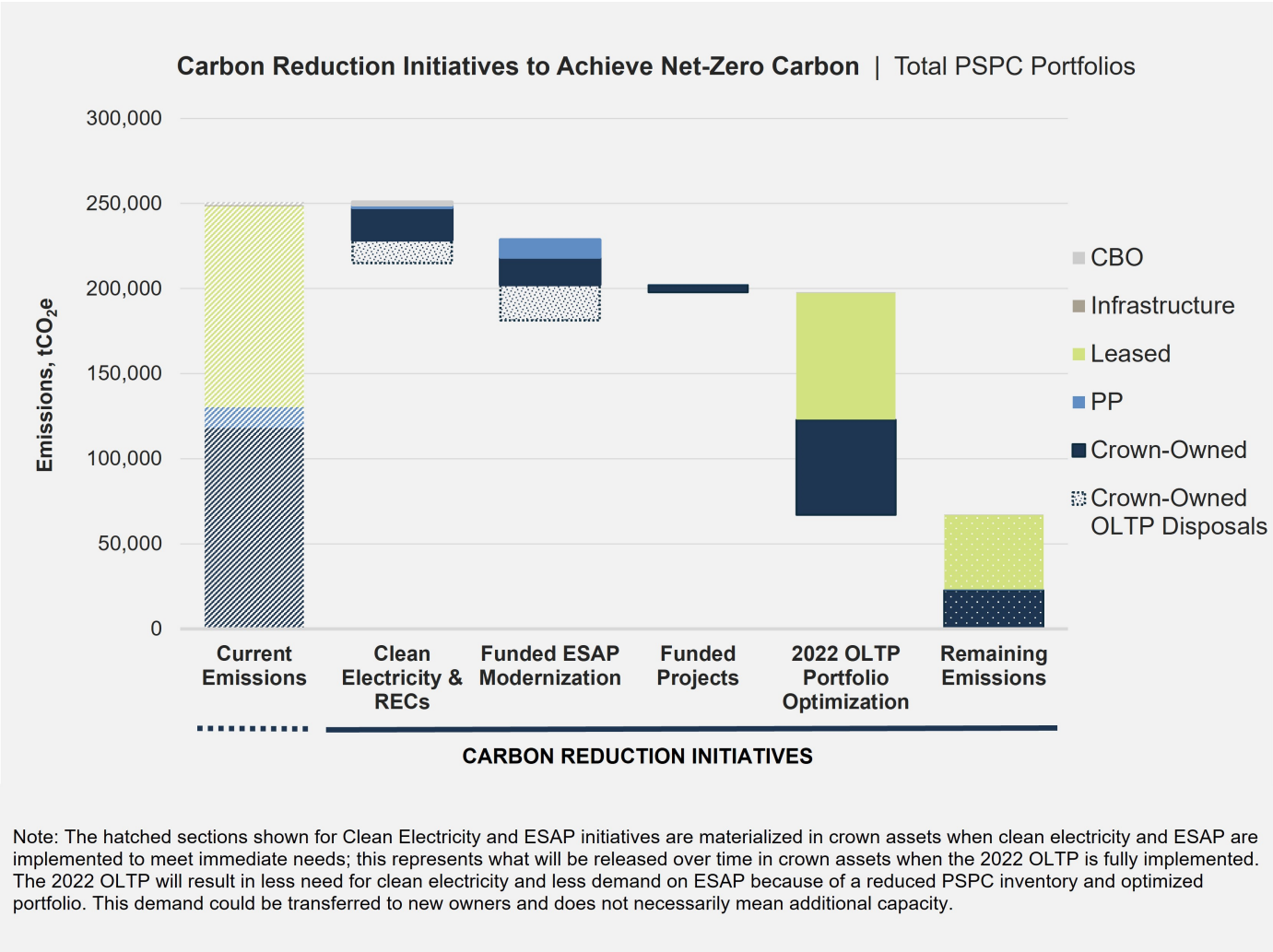


**2017 – proved Carbon Neutrality is achievable**      **Now - planning for a PSPC Net-Zero Carbon Portfolio Plan**

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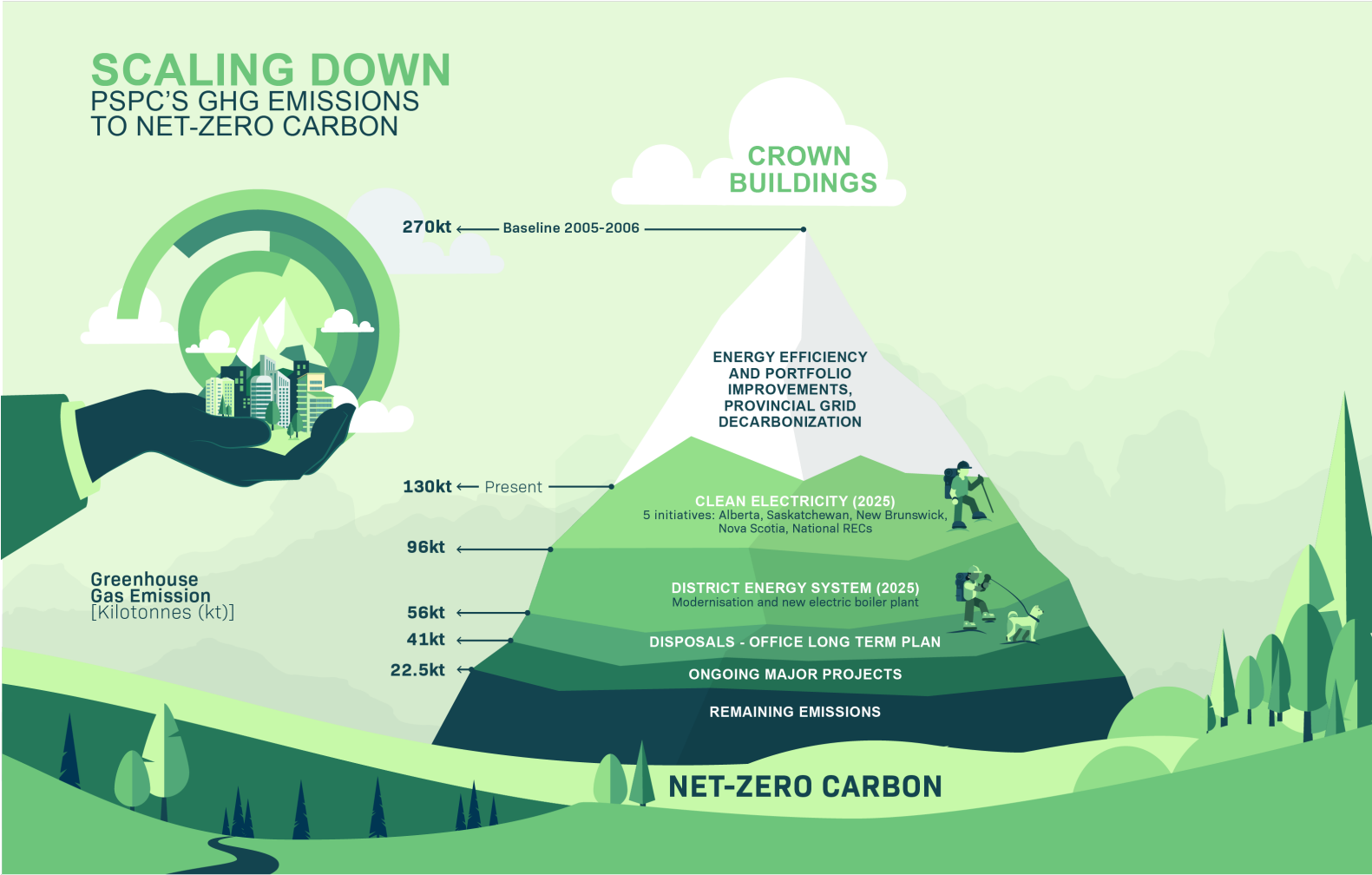
# PSPC Net-Zero Carbon Portfolio Plan (2023)



[www.pspc-spac.gc.ca](http://www.pspc-spac.gc.ca)



# PSPC Net-Zero Carbon Portfolio Plan (2022)



# PSPC Regional Breakdown of GHG Emissions



Region	% of Departmental GHG Emissions (2022/23)
Atlantic	15.6%
Quebec	3.0%
NCA	49.4%
PPB	9.4%
Ontario	6.0%
Western	11.7%
Pacific	4.3%
Fleet	0.6%





Government of Canada

# Clean Electricity Initiative

Reduction of **29.9%** of GC overall reported GHG emissions

CLEAN RENEWABLE ELECTRICITY IS

**WIND & SOLAR**

**80.6% CLEAN**

produced from clean energy sources based on Provincial/Territorial electricity grid production

**19.4% high carbon electricity**

produced from high carbon energy sources based on Provincial/Territorial electricity grid production

**Regional Plans - 16.1%**  
Partnering with Provinces and electric utility companies where dirtiest electricity grids exist.

**Alberta** - Deregulated Market RFP – Retailer Services

6.5%

2.8%

**New Brunswick** - Regulated Market Ongoing discussions with NB Power (Crown Corp) – Government of NB also involved

1.2%

5.6%

**Saskatchewan** - Regulated Market Agreement with SaskPower (Crown Corp)

**Nova Scotia** - Regulated Market NS Power (Private Company) Procurement through Government of NS

**National Plan Renewable Energy Certificates (RECs) - 3.3%**

- RECs used to displace high carbon emitting electricity in locations where new infrastructure development opportunities are not yet available
- A gap strategy to meet 100% clean electricity goal by 2025

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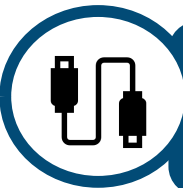
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# Energy Services Acquisition Program (ESAP)

District Energy Services Modernization (including MGEC)



**District Heating**

**30%**  
Reduction of remaining PSPC emissions

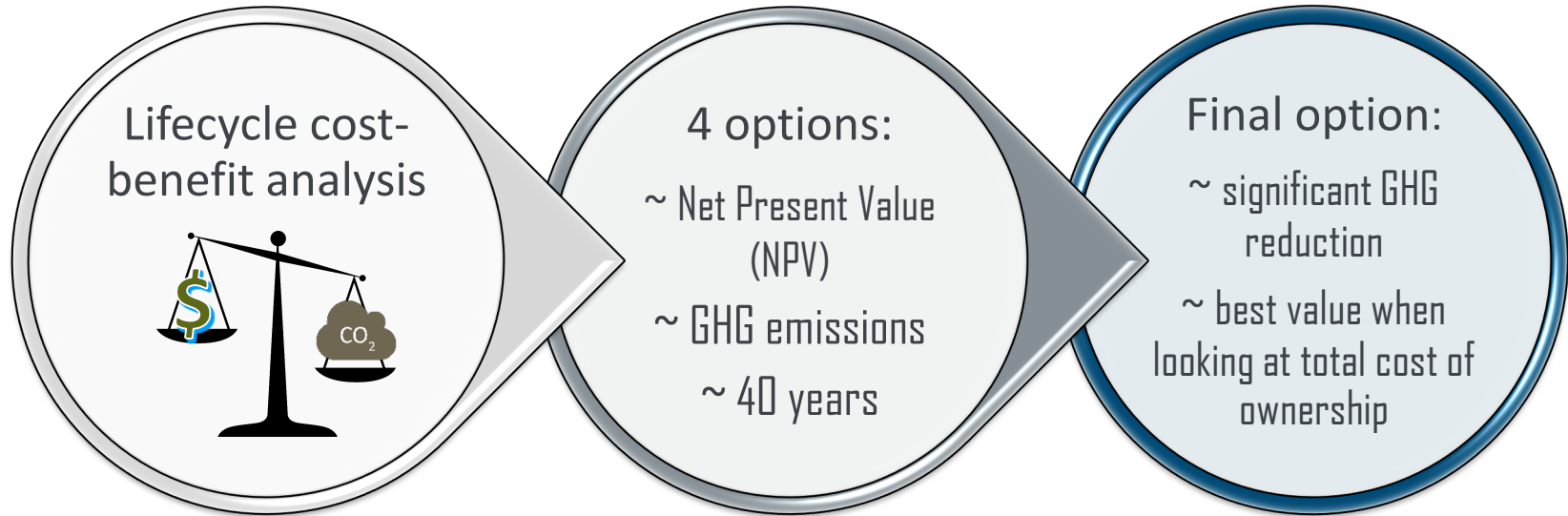
Effectively, all federal buildings connected to the DES will achieve a 92% GHG emissions reductions by 2026 measured against 2005 baseline levels.



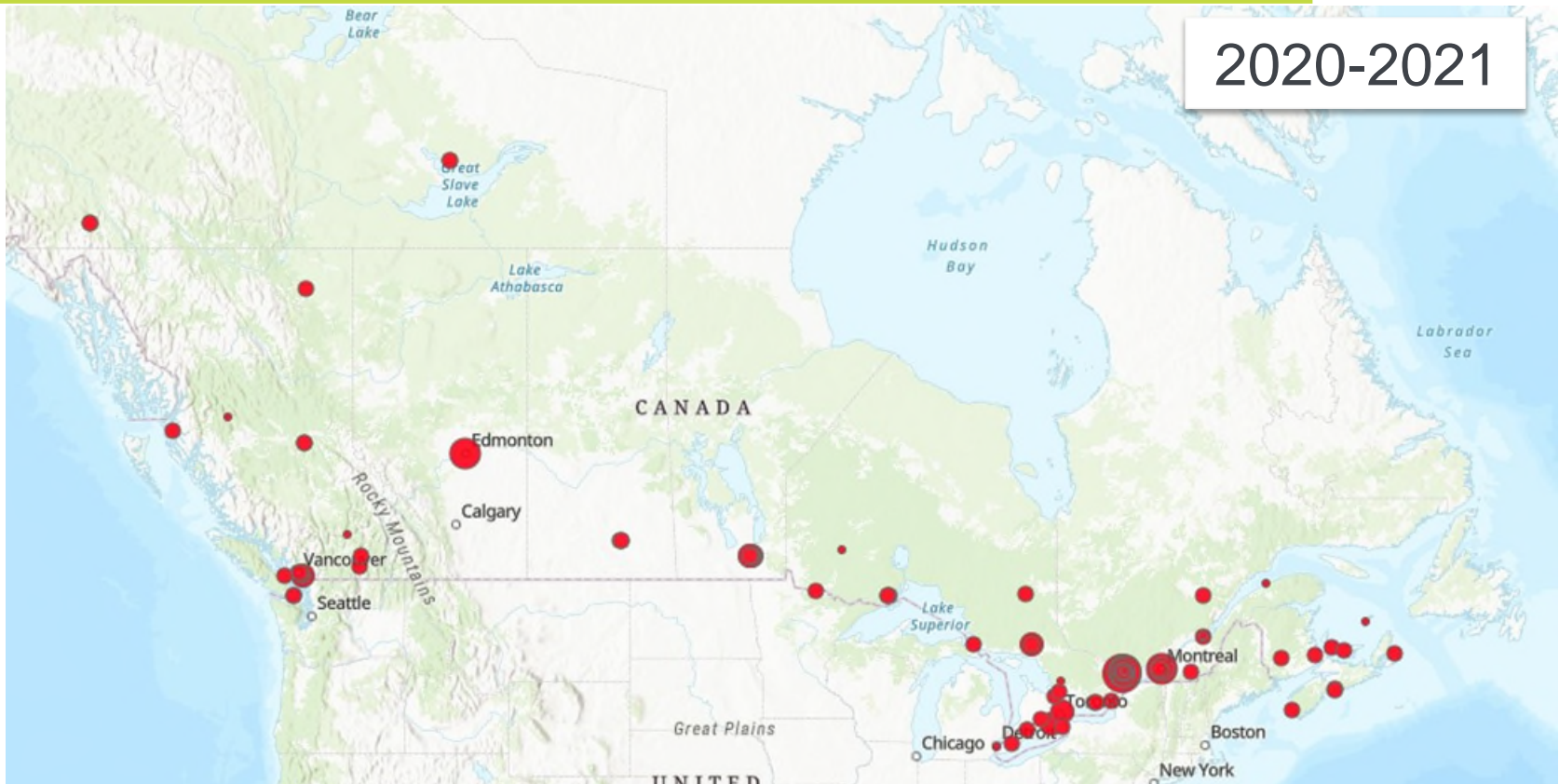
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# GHG Options Analysis Methodology



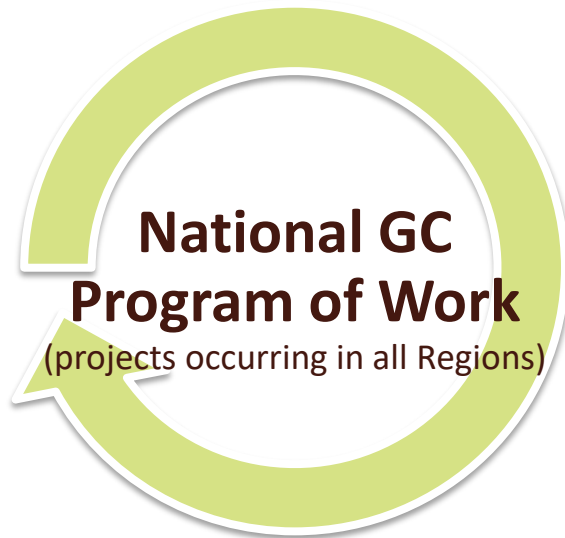
# Remaining Emissions Infographic



Facilities where remaining Scope 1 emissions exist (22,500 tCO<sub>2</sub>e)



# FBI: Energy Performance Contracting



25 projects at different stages, impacting 834 buildings

AAFC, CBSA, CSC, ECCC, DND, NRCan, PSPC

Value of Program of Work: above \$ 340M

Return on investment: ~12 years

Annual GHG reductions: ~40,000 tonnes

**Present FBI program of work PSPC is delivering for GC has the same reduction potential of GHG emissions as ESAP**

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# Buy Clean Strategy (Embodied Carbon)

## Greening Government Strategy

The government will reduce the environmental impact of **structural construction materials\***

- Disclose the amount of embodied carbon in the structural materials of major construction projects by 2023, based on material carbon intensity or a life-cycle analysis.
- Reduce the embodied carbon of the structural materials of major construction projects by 30%, starting in 2025, using recycled and lower-carbon materials, material efficiency and performance-based design standards.
- Conduct whole building (or asset) life-cycle assessments by 2025 at the latest for major buildings and infrastructure projects.

\* ~90% of embodied carbon in standard office buildings is linked to the structure

Concrete

Steel

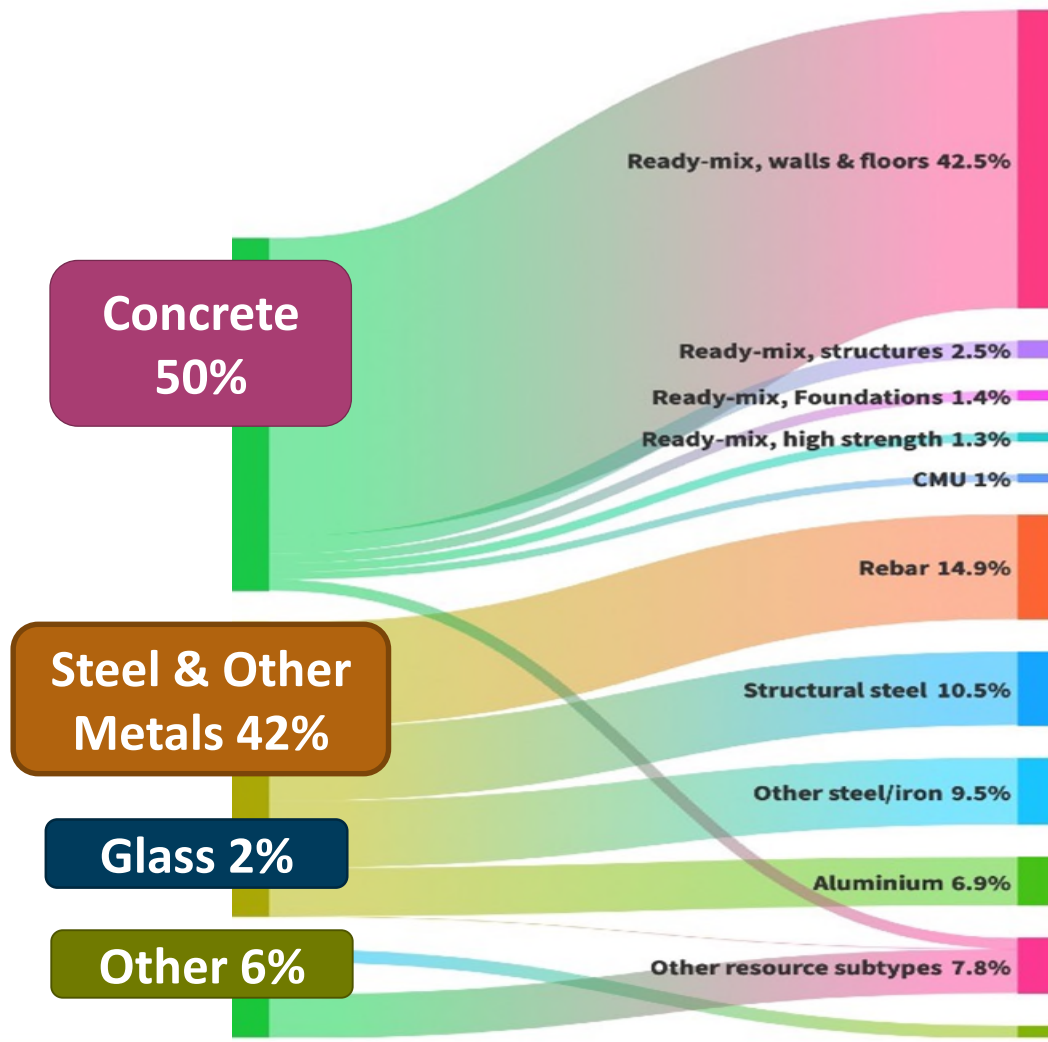
Wood

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# Embodied Carbon (Typical Office Tower)



# Section 2: Climate Adaptation

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Climate adaptation refers to changes in processes, practices, and structures to moderate potential damages from current and future effects of climate change

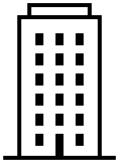
- Existing Assets
- Major Projects





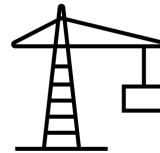
# Climate Change Adaptation

To respond to Greening Government Strategy requirements, PSPC requires Climate Risk and Vulnerability Assessments (CRiVA) to be performed on all forms of assets:



## Existing Assets

- CRiVA's are to be completed on a 5 year cycle to inform Asset Management Planning (AMP) to inform Building Management Plans (BMP)



## Major Projects

- Leverage existing CRiVA's where available, or require CRiVA's be performed as part of professional services which in turn inform design decision-making on major projects

# Annex:

## Dashboards, Placemats, Metrics, Infographics



# PSPC RPS Climate Change Dashboard

**60.5%** reduction in GHG emissions from 2005-06 baseline



**92.8%**

electricity purchased by PSPC for crown-owned and lease purchase assets comes from non-GHG emitting sources



**351** new/renewed leases reporting energy, water, waste & GHG emissions



via Energy Star Portfolio Manager\*

\*Source: PSPC RP Property Facility Management

**57** Carbon Neutral Studies completed on PSPC buildings



**135** Climate Risk & Vulnerability Assessments completed on PSPC buildings / infrastructure



**165** of electric vehicle charging stations in PSPC Crown-owned facilities\*

**119** of electric vehicle charging stations in PSPC leased facilities\*

\*Source: PSPC RP Property Facility Management



**100%** of fleet purchased were zero-emission vehicles (ZEVs) and hybrid vehicles\*

\*Source: PSPC RP People, Planning and Innovation (PPI)