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INDUSTRIAL DEEP DECARBONISATION
AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

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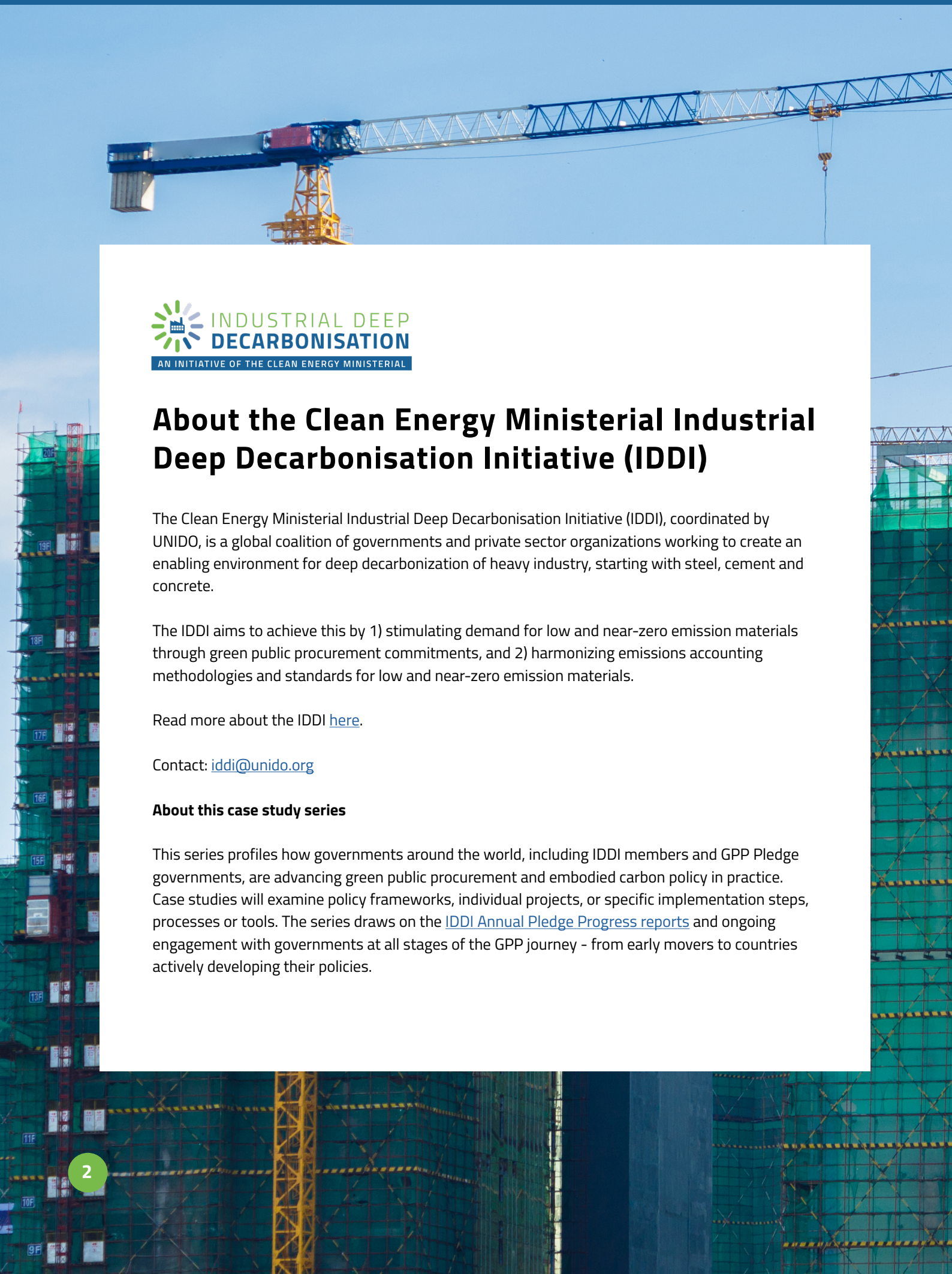
CASE STUDY

Government of Canada Implementing the Standard on Embodied Carbon in Construction

July 2026

Treasury Board of Canada Secretariat
Secrétariat du Conseil du Trésor du Canada

Canada



INDUSTRIAL DEEP DECARBONISATION
AN INITIATIVE OF THE CLEAN ENERGY MINISTERIAL

About the Clean Energy Ministerial Industrial Deep Decarbonisation Initiative (IDDI)

The Clean Energy Ministerial Industrial Deep Decarbonisation Initiative (IDDI), coordinated by UNIDO, is a global coalition of governments and private sector organizations working to create an enabling environment for deep decarbonization of heavy industry, starting with steel, cement and concrete.

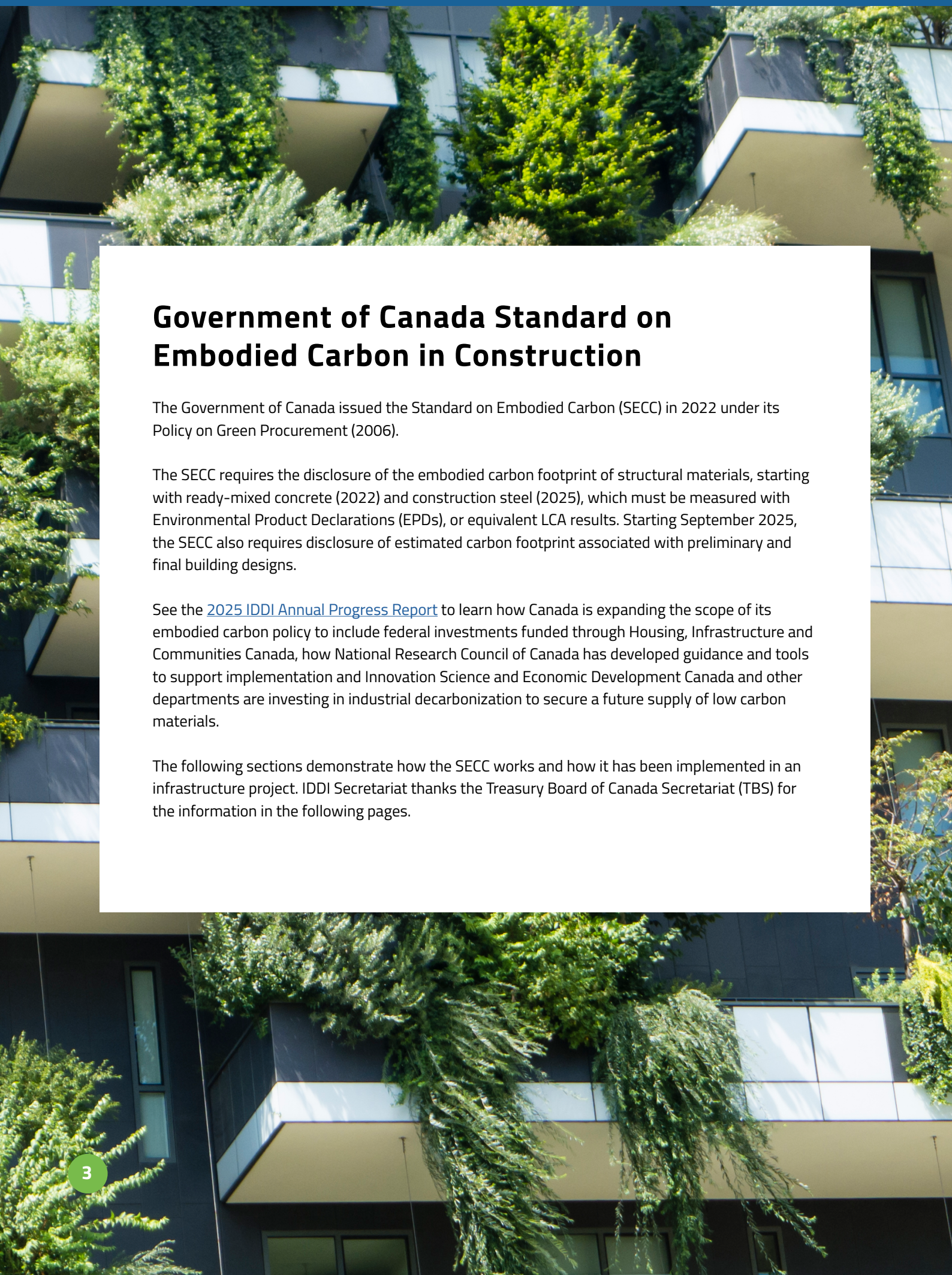
The IDDI aims to achieve this by 1) stimulating demand for low and near-zero emission materials through green public procurement commitments, and 2) harmonizing emissions accounting methodologies and standards for low and near-zero emission materials.

Read more about the IDDI here.

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About this case study series

This series profiles how governments around the world, including IDDI members and GPP Pledge governments, are advancing green public procurement and embodied carbon policy in practice. Case studies will examine policy frameworks, individual projects, or specific implementation steps, processes or tools. The series draws on the IDDI Annual Pledge Progress reports and ongoing engagement with governments at all stages of the GPP journey - from early movers to countries actively developing their policies.



Government of Canada Standard on Embodied Carbon in Construction

The Government of Canada issued the Standard on Embodied Carbon (SECC) in 2022 under its Policy on Green Procurement (2006).

The SECC requires the disclosure of the embodied carbon footprint of structural materials, starting with ready-mixed concrete (2022) and construction steel (2025), which must be measured with Environmental Product Declarations (EPDs), or equivalent LCA results. Starting September 2025, the SECC also requires disclosure of estimated carbon footprint associated with preliminary and final building designs.

See the 2025 IDDI Annual Progress Report to learn how Canada is expanding the scope of its embodied carbon policy to include federal investments funded through Housing, Infrastructure and Communities Canada, how National Research Council of Canada has developed guidance and tools to support implementation and Innovation Science and Economic Development Canada and other departments are investing in industrial decarbonization to secure a future supply of low carbon materials.

The following sections demonstrate how the SECC works and how it has been implemented in an infrastructure project. IDDI Secretariat thanks the Treasury Board of Canada Secretariat (TBS) for the information in the following pages.



1. GREENING GOVERNMENT STRATEGY COMMITMENTS

Government of Canada's GGS sets Cabinet-approved commitments to reduce the environmental impact of construction materials and design by:

1. Disclosing the amount of **embodied carbon in the construction materials** of major construction projects, based on material carbon intensity or a life cycle assessment

2. Conducting **whole-building (or asset) life cycle assessments** by 2025 at the latest for major buildings and infrastructure projects

3. **Reducing the embodied carbon of major construction projects by 30%** starting in 2025 using recycled and lower-carbon materials, material efficiency, and performance-based design

2. TREASURY BOARD OF CANADA SECRETARIAT (TBS) POLICY APPROACH

The Standard on Embodied Carbon in Construction includes requirements for specific materials, and for whole buildings.

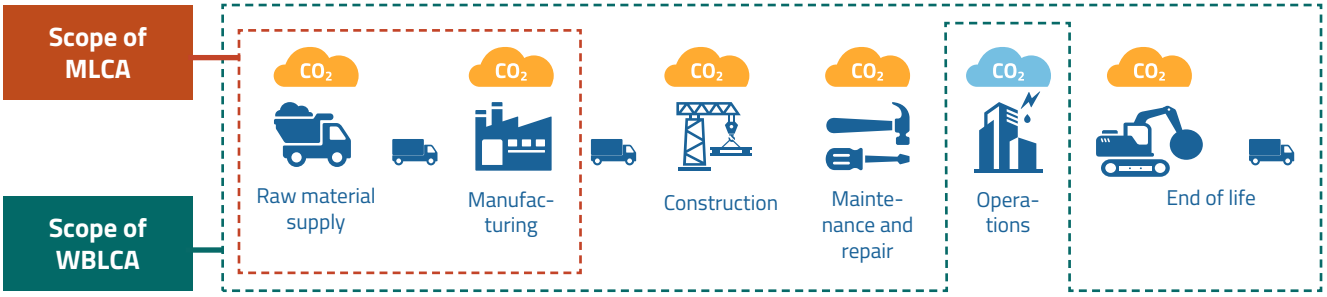
TBS Approaches to Disclose & Reduce Embodied Carbon in Construction

MATERIAL LCA (MLCA)

- Disclose and reduce embodied carbon in high carbon intensity structural construction materials (structure and envelope)
- Applies to all types of construction and infrastructure project

Whole-Building LCA (WBLC)

- Estimate and reduce embodied carbon through the entire life cycle
- Applies to new construction and renovation projects of large buildings







3. PROCUREMENT STANDARD (SINCE 2022)

The Standard on Embodied Carbon in Construction is a procurement standard under the Policy on Green Procurement, that establishes requirements for design and construction services to disclose and reduce the embodied carbon footprint of construction projects.

Existing requirements in place since December 31, 2022:

MATERIAL LCA (MLCA)

Project level performance-based requirements for Ready-Mixed Concrete:

1. For all federal government construction projects > $5M and using more than 100m3 of ready-mixed concrete:

- Disclose the carbon footprint of ready-mixed concrete used on all major construction projects by submitting a project template and Environmental Product Declarations (EPDs) or third-party LCA report
- Reduce the embodied carbon footprint of concrete used by 10% in government projects

** Exemptions to reduction can apply based on technical requirements and market availability, but not to disclosure

PROCUREMENT STANDARD UPDATE (SINCE 2025)

New requirements in place since September 1, 2025:

MATERIAL LCA (MLCA)

Project level performance-based requirements for Construction Steel:

For all federal government construction projects using 200 metric tonnes or more of structural and reinforcement steel:

- **Disclose** the carbon footprint of construction steel used on all major construction projects by submitting a project template and Environmental Product Declarations (EPDs) or third-party verified Life Cycle Inventory (LCI) data.
- **Reduce** the carbon footprint of construction steel used by procuring from the strictest embodied carbon limit tier feasible for each category (i.e., best performing 20 percent, best performing 40 percent, and better than the industry average) in accordance with the National Tiered Greenhouse Gas Limits for Steel Construction Products.

EXEMPTION: Where lower emissions products cannot be sourced while keeping within a 2% premium in the construction cost of the project's structure.

Whole-Building LCA (WBLC)

Project level performance-based requirements for Whole-building Design:

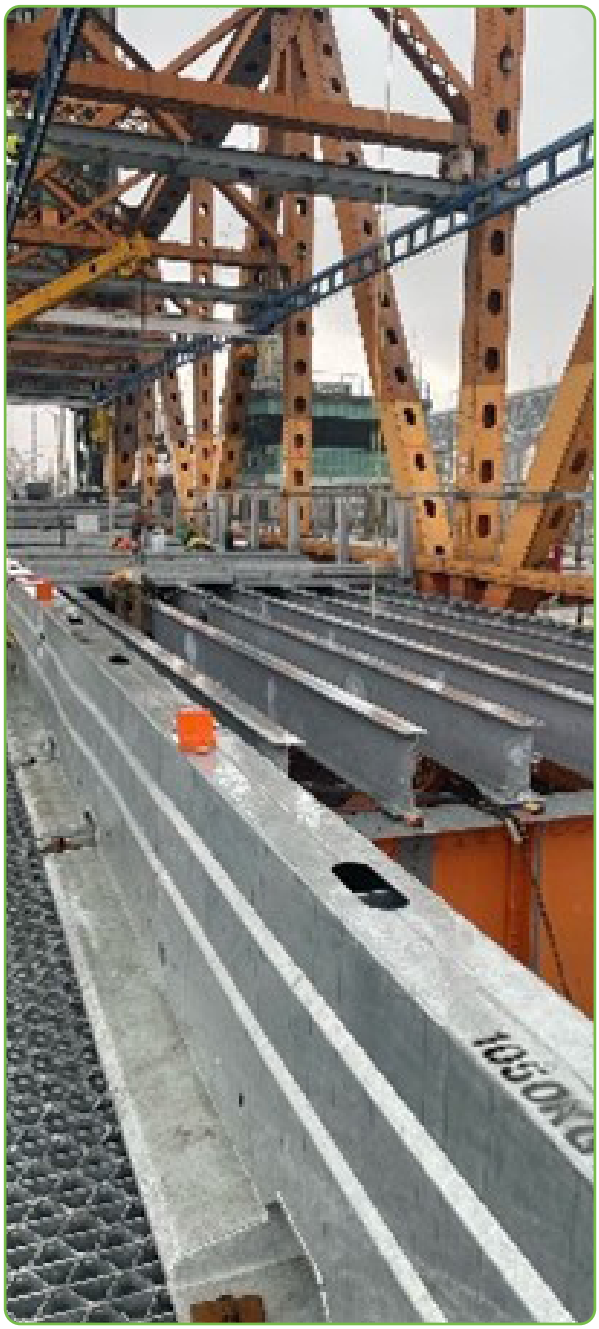
For all federal government construction projects that involve either:

- **New construction of building > 2,000 m2** in gross floor area; or
- **Major renovations of a building > 4,000 m2** that include significant modifications to its structure or envelope.

  - **Estimate** the carbon footprint of the preliminary design and design variants in an options analysis in accordance with the National Whole-Building LCA Practitioner's Guide.
  - **Demonstrate** either a 30% reduction in the final design compared to a functionally equivalent baseline, or how the project will reduce embodied carbon to the extent possible within a 2% premium on net construction cost.

EXEMPTION: Buildings (or building elements) may be exempted where their design is prescribed by functional requirements.

4. PROJECT CASE STUDY: BURLINGTON LIFT BRIDGE REPLACEMENT PROJECT



OVERVIEW

- Vertical lift bridge over the Burlington Canal at the entrance to Hamilton Harbour, east of the Burlington Bay James N. Allan Skyway
- Essential transportation link between Burlington and Hamilton, Ontario
- Construction completed **Fall 2024**

IMPLEMENTATION

- Low-carbon requirements embedded directly into construction specifications during design development
- Close collaboration among the project manager, construction manager, design consultant, and greening team
- Clear communication and full integration of low-carbon expectations across all project phases

RESULTS

- **Low-carbon concrete** successfully specified with no compromise to quality, strength, or durability
- Used on the sections of the bridge leading to the lift span (movable part of the bridge)
- Achieved a **21% reduction in the embodied carbon** of the concrete used compared to the regional average (31 tCO_2e), surpassing the 10% reduction target set by the Standard.