THE CANADA GREEN BUILDINGS STRATEGY

BUILDINGS SECTOR PROFILE AND OVERVIEW OF DISCUSSION PAPER THEMES

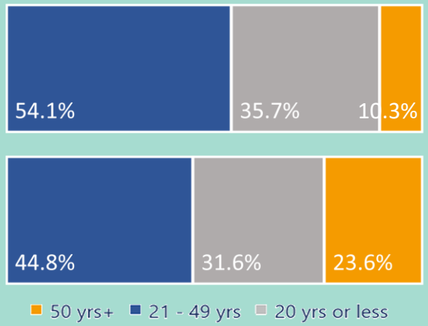
Sector Profile

RESIDENTIAL
16M dwellings
55% (63.3 Mt), incl. electricity

COMMERCIAL + PUBLIC
480K buildings
45% (50.8 Mt), incl. electricity

Source: CEUD 2019

AGE OF STOCK



Emissions Overview and Goals

2005 **84Mt** ⬆ 2019 **91Mt** ⬇ 2030 **53Mt** ⬇ 2050 **Net-Zero**

Key Statistics

< 1% deep retrofit rate — By floor space, commercial & institutional buildings *(SCIEU2014)*

462,150 direct full-time jobs — Direct full-time workers *(2020 Canada Green Building Council)*

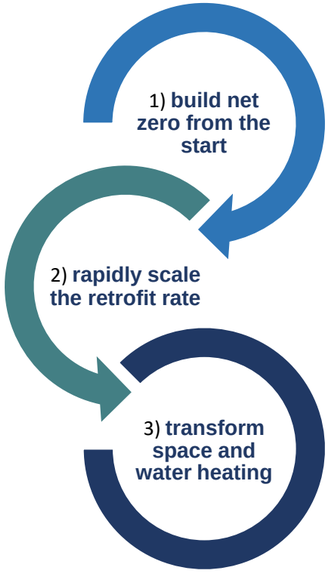
55% job growth since 2014 — 164,260 jobs added from 2014 to 2018 *(2020 Canada Green Building Council)*

Key Messages

- Emissions from the buildings sector are **trending upward** and **falling short** of the projected emission reductions from Pan-Canadian Framework (PCF) measures - partly due to the building stock growing, as well as variations in weather due to climate change
- Approx. 78% of building sector emissions come from **space and water heating**, due to fossil fuel equipment (e.g. gas furnaces) & **low envelope efficiency levels** (e.g. air leakage)
- Increasing pressure on homes and buildings from **extreme weather** and climate change make building stock **resilience** a concern
- A dramatic increase in the **retrofit rate** (currently around 1%) to **3-5 %** and **high-performance new construction** is needed to reduce GHG emissions from Canada's building stock

DISCUSSION PAPER OBJECTIVES

Decarbonization by 2050 requires market transformation through coordinated action from all parts of the sector to advance three objectives:



STRATEGIC THEMES	PROPOSED AREAS REQUIRING CHANGE
LEADING BY EXAMPLE	• Undertake public sector building retrofits • Update approaches to service delivery and urban planning • Ensure funding programs support green building objectives • Establish a cohesive approach to green procurement
MANDATING CHANGE	• Accelerate the creation, adoption and enforcement of high performance, climate-resilient & zero-carbon building codes, standards, and specifications • Modernize legislative tools • Regulate and incent the transformation of space and water heating
ENABLING INVESTMENT DECISIONS	• Review Canada's mortgage finance system • Normalise benchmarking, labelling & disclosure • Simplify deep retrofit projects • Implement transition plans for building portfolios • Standardize deep retrofit projects in commercial and industrial buildings • Crowd-in private capital with government financing for buildings with public interest • Reduce risk of investment in deep retrofits through public funding
GROWING CANADA'S ADVANTAGE IN BUILDING PRACTICES, TECHNOLOGY AND BUILDING MATERIALS	• Chart cost-effective decarbonisation pathways • Incorporate life-cycle carbon into building performance metrics • Accelerate development & adoption of new tech, materials & practices
TRAINING AND INCENTING THE FUTURE WORKFORCE	• Make zero-carbon, climate resilient buildings skills the new norm • Increase the size of the green buildings sector workforce • Increase diversity of the workforce
ENABLING INFORMED ACTIONS	• Increase access to robust, transparent data • Clear definitions for retrofits to easily compare costs • Develop a transparent model for national buildings sector emissions

INDUSTRY ROUNDTABLE: PLENARY

DISCUSSION QUESTIONS:

1. How do you feel about the discussion paper and proposed actions?
2. Are there gaps in the actions or approach the Strategy is taking so far?
3. What might help generate opportunities for enhanced collaboration across sectors toward decarbonization?
4. Are there industry best practices we might follow to better enable a market transition to net-zero emissions by 2050?

ILLUSTRATIVE EXAMPLE FOR DISCUSSION: MAPPING THE DISCUSSION PAPER TO A PATHWAY TO NET-ZERO EMISSIONS

POLICY LEVERS	EMERGENT	EARLY DEPLOYMENT	DEPLOYMENT	MATURITY/NET-ZERO SECTOR
	Encourage new products and processes to stimulate retrofits of homes & buildings	*As new products and processes gain support, economic efficiency improves*	*Infrastructure is built, complementary innovations come to market, policy and regulatory frameworks are put in place.*	*Regulatory and policy frameworks become fully aligned, linkages to other systems are stabilized.*
Research & development & demonstration	- Low Carbon Materials Innovation Hub - Local Energy Efficient Partnerships (LEEP) - Alterations to Existing Buildings (AEB) Code (2025) - R&D Green construction in housing and building - Data strategy for greening Canada's built environment	- Develop guidance for retrofit financing - Develop standardized tools and guideline for conducting life-cycle assessments - Launch a clean jobs training centre - Leading by Example: Federal funding conditions for expenditure		
Enabling codes & standards	• Expand EnerGuide for Homes ENERGYSTAR & Energy Portfolio Manager - Building Performance Standards - Guidelines for Life-Cycle Assessments - Mobilize Private Sector Capital via the Net-Zero Capital Allocation Strategy - Expand skills and training funding / programs			
Regulations			- PTs adopt AEB Building Code - Off-fossil fuel regulations	
Incentives	- Greener Homes program (grants & loans) - Greener Neighborhoods pilot - Net-Zero Building Code Acceleration Fund - Deep Retrofit Accelerator Initiative - Heat pump program for mid/low-income households	- Training funding		
Fiscal Tools	- Buy Clean - Government procurement			

INDUSTRY ROUNDTABLE:
BREAK-OUT GROUPS

DISCUSSION QUESTIONS:

1. Continued discussion on how industry partners feel about the discussion paper and proposed actions
2. Do you see yourself on a path toward net-zero emissions
3. What policy levers do you see as most beneficial to your journey toward net-zero?