

Submission to the Pre-Budget Consultation 2024 Finance Canada

February 9, 2024



Summary of recommendations

1 To supercharge Canada's retrofit economy, the government should

Make large buildings retrofits cost-effective by requiring zero-carbon transition plans for any deep retrofit program and support adoption by developing guidance and training for the market. Transition planning will ensure the effective timing and sequencing of carbon reduction measures. *Recommended investment of \$3 million over three years to Natural Resources Canada (NRCan).*

2 To stimulate Canada's supply chain of low carbon construction materials, the government should

Support small- and medium-sized Canadian companies by creating a Sustainable Construction Materials Grant program to build additional capacity for Life Cycle Assessments and Environmental Product Declarations. This investment will help increase the supply of sustainable materials and grow Canadian businesses at home and abroad.

Recommended investment of \$25 million over three years to Innovation, Science and Economic Development Canada.

3 To set the foundational blocks for decarbonizing Canada's large buildings, the government should

Provide capacity for government verifications processes and enable the labelling of industrial, commercial and institutional buildings by funding a Buildings Data Strategy. The green building sector needs standardized data that is reliable and easy to access, including information on energy consumption and carbon emissions.

Recommended investment of \$35 million over three years to NRCan.



Introduction

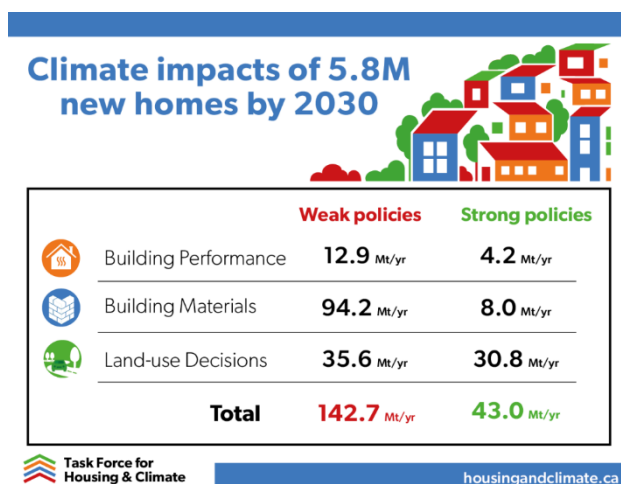
Whether new construction or retrofits, zero-carbon buildings¹ are Canada's best and most cost-effective option to reduce greenhouse gas (GHG) emissions. Investing in zero-carbon and green buildings delivers better quality buildings along with valuable environmental and socio-economic benefits.

For example, achieving Canada's 2030 emission targets requires an acceleration of green building construction and retrofits. As a result, Canada could experience economic growth driven by a potentially threefold increase in direct green building jobs, up to 1.5 million.

Green buildings also result in more resilient communities which are better adapted to climate change. Resilience is increasingly necessary as frequent and extreme weather events cost over \$3.1 billion in insurable losses in 2023 according to the Insurance Bureau of Canada. Through green and zero-carbon buildings, Canada can ensure energy-efficient, safer and healthier workspaces and homes, which are more affordable because they recognize the total cost of ownership.

The reasons for pursuing a zero-carbon building transition are clear, but progress needs to accelerate. Canada's Emissions Reduction Plan (ERP) requests a 37 percent emission reduction for the building sector by 2030 compared to the 2005 levels. Reaching this target will be challenging given that:

- Building operations account for 18% of Canada's GHG emissions, but when building materials and construction processes are considered, it rises to 28%; and,
- adding 5.8 million homes could lock in as much as 142.7 Mt in new annual GHG emissions in 2030 or could generate as little as 43 Mt of annual GHG in 2030;²
- Limited access to low-carbon carbon materials and labour shortages hampers widespread adoption of zero carbon buildings.



To reach the ambitious objectives of the ERP, **the federal government must release and implement a well-funded and ambitious Canada Green Buildings Strategy (CGBS) to support the decarbonization of the built environment, a policy supported by building sector businesses and organizations.** The 2024 federal budget should support the following three investments to successfully implement the Strategy and decarbonize Canada's large buildings.

¹ A zero-carbon building is a highly energy-efficient building that either produces on-site or procures non-emitting renewable energy or high-quality carbon offsets to counterbalance the annual carbon emissions from its materials and operations.

² Task Force for Housing and Climate, Climate impact of 5.8 million homes Executive Summary, 2023.

1 Supercharge the retrofit economy

The Canada Green Buildings Strategy (CGBS) has the potential to facilitate a transition to better buildings. The benefits could be wide-reaching, from protecting Canadians against extreme weather events to providing economic and social benefits to communities and supporting Canada's Clean Energy ambitions. **Expanding green building in Canada will bring jobs, economic growth, and reduce energy costs in every province, territory and municipality.**

The CGBS should make zero-carbon buildings the new normal by 2030 and support the retrofit economy. As our report [Decarbonizing Canada's Large Buildings](#) demonstrates, public funding should prioritize multi-unit residential buildings retrofits. [CAGBC, along with other advocates](#), support significant investments in green and affordable homes for low-income families.

The CGBS should accelerate and scale up the decarbonization of the 150,000 existing large commercial and institutional buildings, which can all reach net zero over time.³ These much-needed deep retrofits will improve building performance and significantly reduce GHG emissions. However, the federal government and the private sector must overcome competing economic priorities and financial barriers that prevent the pursuit of deep carbon retrofits.⁴

Pressure to ensure that the building sector remains globally competitive is increasing. Commercial real estate companies face pressure to set net-zero carbon targets and meet stated environmental, social and governance (ESG) objectives. At the same time, tenants and occupiers expect their landlords' sustainability actions to meet their ESG goals.⁵ With this increased pressure from the market, real estate companies are seeking new approaches to financing. They are leveraging data insights and transition planning, as well as certifications like the [Zero Carbon Building standards](#) to decarbonize their portfolios.

Aligning investments in retrofits to the typical life cycle of building systems renewal is the best and most cost-effective approach to decarbonization. Building owners require transition plans to strategically invest in the retrofits needed to remove fossil fuels from their building portfolios. **Over the next 30 years, owners could have only one opportunity to finance a complete deep carbon retrofit cost-effectively.** A transition plan is necessary to ensure the opportunity isn't wasted.

The Government's Canada Green Buildings Strategy (CGBS) should include a commitment to require zero-carbon transition plans as a condition of federal funding starting in 2026.

CAGBC recommends investing \$3 million over three years to Natural Resources Canada (NRCan) to support the development of guidelines, training, and communications to ensure the rapid adoption of transition plans by the building sector.

³ Canada Green Building Council, [Decarbonizing Canada's Large Buildings, December 2021](#).

⁴ A deep carbon retrofit is a project involving multiple energy efficiency and/or renewable energy measures in an existing building, designed to achieve major reductions in net energy use (40% or greater reductions).

⁵ JLL, [Capital Markets Foundations and the Net-Zero Carbon Transition \(jll.ca\)](#), October 2022.

2 Stimulate Canada's supply chain of low-carbon construction materials

Every building and retrofit that does not target zero-carbon operations today will increase emissions over its lifetime. Investments in mechanical equipment, ventilation systems, and building envelopes will be more significant to reach net zero by 2050. Attaining meaningful carbon reductions for new buildings will also require an immediate focus on embodied carbon,⁶ as research predicts that almost 75 percent of emissions between now and 2030 will come from materials.

Decarbonizing Canada's built environment requires that public procurement policies shift from the lowest-cost option for construction materials to low-carbon products. Establishing a Canadian low-carbon supply chain will enable Canadian businesses to benefit and ensure Canadian products and innovations are competitive on the global stage. Achieving this new low-carbon market will require investment in research, development and manufacturing support. Further, the sector will need clarity on documentation requirements and a transparent timeline for new regulations.

The Treasury Board Secretariat advanced this goal in December 2022 by releasing a "Standard on embodied carbon in construction" for concrete mix. In May 2023, the City of Toronto announced new embodied carbon regulations, and the City of Vancouver released its own regulation last December—all requiring Environmental Product Declarations (EPDs) or Life Cycle Assessments (LCAs).

To level the playing field, the Federal Government should create a Sustainable Construction Materials Grant program to enable Canadian SMEs to pursue LCAs and facilitate EPDs for low-carbon products. The program should consider the timing of new standards on embodied carbon and align where possible, starting with a focus on structural construction materials. Further, the program will support the implementation of the Greening Government Strategy, the CGBS and the future Buy Clean Strategy. A similar initiative was undertaken in the United States through the Inflation Reduction Act, a \$330 million investment.⁷

CAGBC recommends investing \$25 million in this program, to be managed by Innovation, Science and Economic Development Canada. This investment could bring up to 500 EPDs or LCAs to the market and the Life Cycle Inventory, established through the LCA² Initiative. This investment would support the creation of a Canadian low-carbon supply chain and enhance local economic growth and global competitiveness.

3 Data is the foundation for decarbonizing Canada's large buildings

CAGBC strongly supports including a Building Data policy in the Canada Green Building Strategy (CGBS). Effective benchmarking and data disclosure must become standard practice for building operations. **Access to reliable data can inform future versions of the CGBS, raise awareness of carbon emissions, and measure retrofit outcomes.**

⁶ Embodied carbon emissions arise from manufacturing, transport, installation, use, and end-of-processing of materials used in building construction. Design teams can find the greatest embodied carbon savings by carefully considering the issue from project outset.

⁷ Investment of 250 million USD on Environmental Product Declaration Assistance, [EPA - Inflation Reduction Act Presentation- 2022](#)

Increasing numbers of corporations including commercial real estate companies have set net-zero carbon targets as part of their environmental, social and governance (ESG) standards. While Canada has the greatest number of certified zero-carbon buildings in the world through the [CAGBC Zero Carbon Building standards](#), JLL (a leading global commercial real estate and investment management company) indicates that the market for zero-carbon buildings remains restrained. In the absence of short-term supply, business tenants seeking sustainability actions from their landlords will require data from utilities⁸ and other sources to make more informed decisions. In other words, the industry needs standardized building data that is reliable and easy to access, including (but not limited) to water and energy consumption, waste, and carbon emissions. The government should support the implementation of standardized energy benchmarking, disclosure and rating systems in provinces and territories or provide a national program they could join.

CAGBC recommends a \$35 million investment to create a Buildings Data Strategy. This investment will support government capacity to measure and verify the efficacy of federal programs and support NRCan's work to harmonize benchmarking, disclosure, and labelling policies or building performance standards that provinces, territories or municipalities would like to put in place.

Conclusion

On the heels of increasingly unpredictable and damaging weather events, climate change and resiliency must be Canada's top priorities. We need to lower carbon emissions significantly to slow and eventually reverse climate change. The building sector can be part of the solution and is ready to reduce emissions at scale with zero-carbon buildings, a proven and cost-effective approach.

Reaching net-zero emissions by 2050 requires the decarbonization of all of Canada's large buildings—and the financing of bold actions by the Federal Government. **Committing Canada to decarbonize its built environment will provide a global model that other countries can follow and ensure buildings and communities can better respond to the impacts of climate change. As a co-benefit, the retrofit economy will create new jobs, foster innovation, and grow Canada's low-carbon supply chain.**

The green building sector is ready. We've proven that new zero-carbon buildings are technically and financially feasible and that all existing large buildings have a path to zero. For the building sector to advance its carbon targets, it needs intentional and thoughtful federal leadership, especially around procurement and public investment. Further, the Government can leverage the Green Buildings Strategy to realize carbon reductions and advance healthier and more affordable homes.

Committing to zero-carbon buildings and a net-zero emissions economy has the potential to change Canada profoundly. Only by matching our ambitions with determined action will we meet Canada's 2050 decarbonization goal and remain competitive on a global stage.

⁸ JLL, *Capital Markets Foundations and the Net-Zero Carbon Transition*, October 2022.