



Pre-budget Consultations 2022

FEBRUARY 25, 2022

Recommendation Summary

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

- **Prioritize infrastructure funding to support deep carbon retrofits**, including new rounds of funding to the Green and Inclusive Community Buildings program.
- **Require zero-carbon transition plans as part of deep carbon retrofit programs** for all building types to ensure the effective timing and sequencing of carbon reduction measures.
- **Support the development of mandatory energy benchmarking, disclosure and labelling programs** in each province and territory as part of the new National Net-Zero Emissions Building Strategy or provide a nationally-based program that other levels of government could participate in.

2 To stimulate zero-carbon new construction, the government should:

- **Develop Canada's supply chain of low-carbon construction material** by funding life cycle assessments and environmental product declarations for products manufactured by small- and medium-sized companies and funding whole-building life cycle assessments for large buildings.
- **Finance a Buy Clean Strategy** that will require public procurements to use Canadian-made low-carbon materials.
- **Keep funding the development of the evidence-based National Infrastructure Assessment** and the independent commission responsible for its execution.

3 To address the one million jobs needed in the green building sector, the government should:

- **Extend funding for the Sectoral Workforce Solution** until 2025/2026 (\$360 million per year).
- **Ensure that workers can use the employment insurance program to pay for low-carbon upskilling or reskilling training.**
- **Invest in developing collaborative platforms and partnership initiatives** such as [Workforce 2030](#) that remove siloed approaches to skills development.

Introduction

The Canada Green Building Council (CAGBC) is a national, industry-led organization dedicated to advancing green building. Our market research and analysis, certification programs and capacity-building efforts have accelerated the adoption of high-performance, healthy and low-carbon buildings. With over a thousand corporate members, we regularly convene industry stakeholders to share information and advance industry priorities.

Green buildings are Canada's best and most cost-effective opportunity to reduce greenhouse gas (GHG) emissions while also providing socio-economic and environmental benefits. Green buildings are integral to resilient and adaptive communities, safe and accessible workspaces, and affordable homes that recognize the total cost of ownership.

Meeting national and international climate commitments requires the construction and retrofit of low-carbon buildings at scale. However, Canada's new emission reduction target of 40-45 per cent by 2030 compared to the 2005 levels is challenged by some complex realities:

- Despite efforts, the building sector increased its overall emissions by almost 6% between 2005 and 2019;¹
- Buildings account for 17% of Canadian GHG emissions, and when combined with materials and construction processes, this rises to 28%; and,
- Less than a third of green building industry leaders interviewed have a decarbonization transition plan with specific targets.²

Policies must shift and work with investments to unlock the green building sector's full potential. In 2018, over 460,000 Canadians worked in green building (including operations, construction, education, and manufacturing), contributing approximately \$48 billion to the GDP – an over 50 per cent increase over the four years. To achieve Canada's 2030 emission reduction targets, green building construction and retrofits must accelerate and scale up to see a [threefold increase](#) to 1.5 million jobs.

Budget 2022 will set the pace for the decarbonization of the construction sector through zero carbon buildings and retrofits. Investing in zero carbon buildings offers many benefits, including better resiliency and adaptation to climate change, greater occupant health and comfort, and jobs that will help get Canadians back to work.³ CAGBC recommends that the federal government prioritize policies and public and private sector market support for green buildings in the following ways:

1. Supercharge the Retrofit Economy

All existing buildings can reach net-zero over time according to 'CAGBC's "[Decarbonizing Canada's Large Buildings](#)" study released in December 2021. However, the federal government and the private sector need to overcome economic, market, and financial barriers that, combined with competing priorities, can prevent the pursuit of deep carbon retrofits that improve performance and reduce GHG emissions. Analysts have suggested that Canada must quickly scale up retrofit activity now; otherwise, it will take 71 years to completely retrofit commercial buildings and 142 years for the residential building stock.⁴

Our research shows that owners likely have one opportunity over the next 30 years to cost-effectively finance a complete deep carbon retrofit that aligns with a typical building systems' lifecycle renewal. Building owners require zero-carbon transition plans to strategically invest overtime in the retrofits needed in the short and long-term to remove fossil fuels from their building portfolios. The government could support this long-term planning by requiring zero-carbon transition plans and energy efficiency upgrades (such as enhanced envelopes) as a condition of federal funding.

The federal government should also focus on existing low- and mid-rise multi-unit residential buildings (MURBs). These projects present a more challenging business case for energy cost savings and GHG emissions reductions. However, retrofitting MURBs can help combat "energy poverty," where occupants spend a disproportionate amount of their income on utility bills.

Effective benchmarking and disclosure must become a standard practice for building operations and should be integrated into the National Net-Zero Emissions Building Strategy to help inform future policy, raise awareness of carbon reduction, and measure outcomes. The 2018 Reports from the [House of Commons](#) and the [Senate](#) recommended these activities be regulated across Canada, which can quickly be accomplished using tools such as [Arc Skoru](#), a globally recognized building performance platform. The government should support the implementation of standardized energy benchmarking, disclosure and rating systems in provinces and territories or provide one they could join.

1 ECCC, *Greenhouse gas sources and sinks: executive summary 2021*, <https://www.canada.ca/en/environment-climate-change/services/climate-change/greenhouse-gas-emissions/sources-sinks-executive-summary-2021.html#toc3>

2 CAGBC, *National Infrastructure Assessment: Survey To Industry Leaders*, May 2021.

3 A net 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.

4 Efficiency Canada, [Canada's Climate Retrofit Mission](#), June 2021.

Finally, the federal government can help de-risk low-carbon retrofit investment opportunities for private sector lenders by introducing standardized project origination and quality assurance frameworks like the Investor Confidence Project (ICP) and its [Investor Ready Energy Efficiency \(IREE\) certification](#). Third-party verification of retrofit projects increases transparency, consistency, and the reliability of energy-efficiency retrofit projects. The federal government could support provincial, territorial and municipal levels' adoption of the ICP framework.

2. Stimulate Zero Carbon Construction

Zero-carbon buildings⁵ offer economic and environmental benefits today because they are technically and financially feasible to design, construct and operate. Zero-carbon buildings drive innovation, enhance Canada's global competitiveness, and support the domestic supply chain of low-carbon services, materials, and technologies with associated gains in skilled jobs. Every building and retrofit that does not target zero carbon operations today will increase emissions. These same buildings will also need to make significant investments in mechanical equipment, ventilation systems, and building envelopes to achieve net-zero emissions by 2050.

Attaining meaningful carbon reductions for buildings also requires a focus on embodied carbon.⁶ Almost 75 per cent of emissions between now and 2030 are expected to come from new building materials. Federal procurement policies must shift from the lowest-cost option toward low-carbon construction materials and a set "made in Canada" threshold. This type of preferred procurement approach already exists, for example, the California Buy Clean Act, and should be adopted as part of a Canada Buy Clean strategy.

Establishing a sustained low-carbon supply chain requires research and development and manufacturing support. The federal government should invest \$20 million through the life cycle assessment (LCA²) initiative for embodied carbon research and identify benchmarks and reduction targets for the National Building Code.⁷ A further investment of \$20 million would enable Canadian SMEs to register Environmental Product Declarations (EPD) and facilitate them obtaining LCAs for low-carbon products, enhancing local economic growth and global competitiveness in a low carbon economy. The federal government should also require all federal crown corporations with significant real-estate holdings to adopt the Greening Government Strategy, which has embodied carbon targets. Expanding to crown corporations will

improve the business case for zero carbon buildings and energize a low carbon national supply chain.

The government should continue to develop its long-term vision through the National Infrastructure Assessment (NIA). The assessment process must be conducted independently and with an evidence-based approach. CAGBC strongly recommends the government continue funding the NIA and set up a commission responsible for its execution as soon as possible.

3. Advance Workforce Development

At present, the building sector is not equipped to deliver the scale of green building construction and retrofits needed to reach Canada's GHG targets. Successfully reaching these targets is dependent on workforce capacity. Budget 2022 must connect climate and workforce development agendas across government departments, policies and programs and leverage the green building sector to create jobs and reduce emissions.

The workforce programs announced with Budget 2021 will help fast-track the workforce needed to build a low-carbon economy over the next three years, but it will not establish a sustained green building workforce needed to meet Canada's goals. The federal government must extend the Sectoral Workforce Solutions Program until 2025/2026 to invest in existing workers' low-carbon knowledge, practices, and technologies. In addition, a new and diverse generation of green building workers is needed, including under-represented groups such as women and racialized youth. The fit-for-trainee program is one option for the rapid and flexible delivery of low-carbon skills training.

Incumbents in the green building sector face significant challenges in acquiring low-carbon skills, including taking pay cuts or time off. The Canada Training credit needs to be redesigned, and other tools must be developed to reduce labour shortages. The government should also allow the use of Employment Insurance for low-carbon upskilling or reskilling training while adequately compensating for wage losses.

Finally, the federal government should partner with industry to overcome siloed approaches to training. Collaborative approaches such as [Workforce 2030](#) bring together employers, labour and education interests to create shared roadmaps⁸ for low-carbon workforce development.

⁵ A zero carbon building is a highly energy efficient building that produces onsite, or procures, carbon-free renewable energy or high-quality carbon offsets to offset the annual carbon emissions associated with building materials and operations.

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 The National Building Code can help ensure embodied carbon reduction is a goal from the start.

⁸ Workforce occupational roadmaps represent internal exploration of how each occupation is impacted and how it can prepare to work on a low carbon project including upskilling, innovating work processes, and growing the capacity of new and incumbent workers.

Conclusion

Climate change and the resulting need for increased resiliency presents both a challenge and an opportunity for Canada. Reaching net-zero emissions by 2050 requires the decarbonization of Canada's buildings and the financing of bold actions for GHG reductions by the federal government. Committing to this path will showcase Canada as a global leader, provide unprecedented economic opportunity, and ensure that buildings can respond to rapidly changing climates.

The reports coming out of COP26 in Glasgow and the Intergovernmental Panel on Climate Change demand governments and companies double their decarbonization efforts. The 2030 target focuses on a 100 per cent reduction in operational carbon and 40 per cent reduction in embodied carbon⁹. The green building sector is ready to move forward on decarbonization, including retrofits. Targeted, intentional, and thoughtful federal leadership is needed, especially procurement and public investment. Further, a national retrofit strategy that aligns GHG emissions reduction with affordable homes and building design or retrofit will achieve added health and well-being benefits.

Moving to zero carbon buildings and, more generally, to a net-zero emissions economy will change Canada profoundly. We need to be bold and creative to achieve the country's 2050 decarbonization goal and match our ambitions with action.

⁹ World Green Building Council, [*WorldGBC Net Zero Carbon Buildings Commitment expands to include embodied carbon*](#) September 2021.