2024 Action Report

CSBA

Climate Smart Buildings Alliance

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Founding Partners

EllisDon

mattamyHOMES

RBC

AtkinsRéalis

Champions' Group

wesgroup

CIBC

DIALOG

Reaching Canada's goal of **net zero emissions** by 2050 is impossible without significant advancements in how we design, construct and operate buildings.

Beyond being necessary, the climate transformation is creating exciting opportunities over the coming decades for innovative companies that embrace it. We can deploy new materials and technologies to make our buildings smarter, more efficient and less expensive to operate.

We can redesign our buildings and communities to withstand changing weather and reintegrate nature into our cities. Canada can become a world leader in innovative carbon-storing materials like mass timber and lower-carbon steel and concrete. We can also find ways to redesign financial structures so that resilient, climate-smart buildings are more affordable.

Canada is growing fast – and there is an urgent need to build new homes and infrastructure to support our growing population and economy. Reducing the climate impacts of this growth requires innovation and fresh collaboration across the value chain, and ultimately, bold systems change.

The Climate Smart Buildings Alliance will lead the way.

Time to Step Up: The Climate & Canada's Building Sector Need Leadership & Innovation

Buildings account for almost one-third of global emissions, producing some 90 MT of greenhouse gases annually in Canada – the third-highest emitting sector.[1]

Across the building sector, we know big changes need to happen to meet the climate challenge. The industry needs to shift by way of us predominantly building with low- or zero-carbon materials. We need to reduce fossil fuel combustion for heating and ensure existing buildings are operating efficiently.

We also know that no company can do it alone. Building is a team sport. Every project involves dozens of partners across finance, insurance, design, engineering and construction. Governments also play an important role in setting the ground rules and policies that shape the market. If we want to meet the moment, we need to find ways for this complex system to transform into the climate smart building industry of the future.

That is why we're proudly bringing together the Climate Smart Buildings Alliance (CSBA).

Our ambition is to work across silos to identify the barriers preventing sustainable change and pilot approaches we hope will become the new industry standard. We're looking for new ways to work with each other and with governments, so climate smart decisions become faster, easier and more affordable. By working together, we believe we're ultimately designing the future of the building industry.

As you'll read in this report, we've accomplished a great deal in a short time. CSBA launched five priority projects in collaboration with 70+ organizations across the industry and multiple levels of government on transformative solutions.

The direction is clear. Now it's time for leaders from across the industry to stand up and take action. We know there is much more to do and hope your organization will join us on this journey. We're all in this together.

Peter Gilgan, Chairman & CEO, Mattamy Asset Management

Ian Edwards, President and Chief Executive Officer, AtkinsRéalis

Dave McKay, President & CEO, Royal Bank of Canada

Geoff Smith, Executive Chair EllisDon Corporation

[1] RBC Climate Action Institute, *High Rise, Low Carbon: Canada's $40 billion Net Zero building challenge*

Climate Smart Buildings Alliance:
Leading Industry Transformation

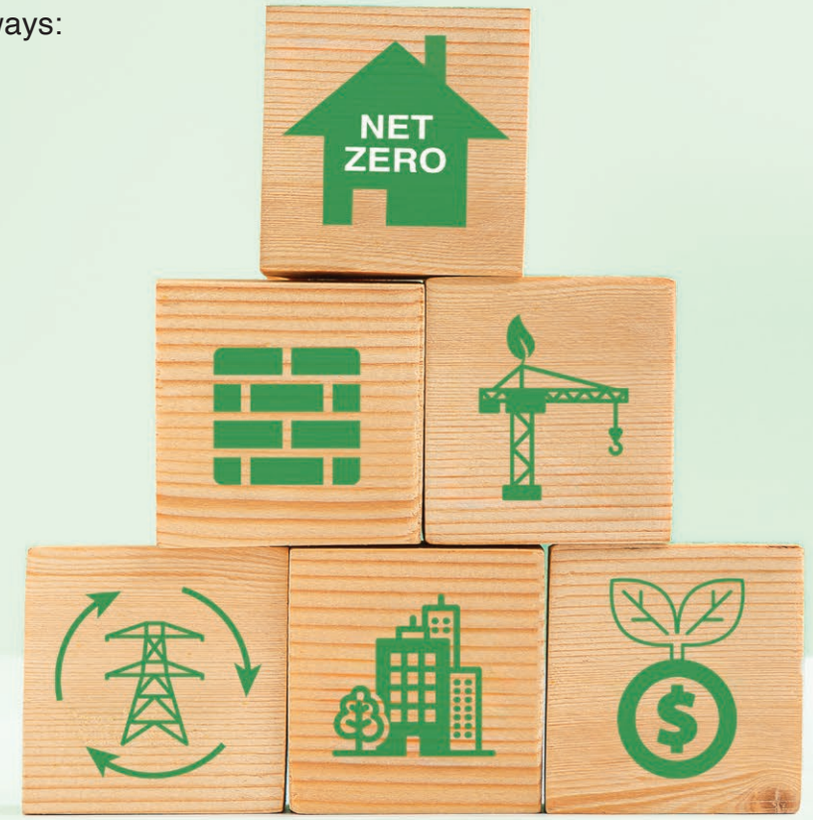
In 2023, senior leaders from EllisDon, Mattamy Homes and RBC came together with a vision to leverage their combined knowledge and industry influence to lead and accelerate the building industry's transition to net-zero. Over the past year, these founders were joined by AtkinsRéalis, along with DIALOG, Wesgroup, and CIBC as part of CSBA's Champions Group.

With direct leadership and input from the CEOs and founders of our member organizations, CSBA collaborates with other key industry players, governments and NGOs to find new ways of working together, test innovative solutions, identify and address sustainability barriers, and ultimately design and implement the new net-zero normal for the industry.

To achieve this goal, CSBA focuses on three core decarbonization pathways:

1. Increase the use of low- and zero-carbon building materials
2. Reduce fossil fuel combustion in buildings and support the growth of a clean electrical system
3. Accelerate retrofits and net-zero new builds

These objectives are big, and CSBA is working to tackle them piece-by-piece through an evolving series of action projects.



Action Strategy

The building sector has access to many technologies and solutions to significantly reduce emissions. Some have been pilot-tested for years. However, system-level barriers prevent widespread adoption. As an Alliance, we aim to move beyond pilots and make climate-smart materials and practices the new industry standard.

By addressing the procurement, design, construction, and financing practices of industry players, along with the culture and inter-company practices of the industry, we can play a significant role in shaping the future of our sector.

We are confident our efforts can help the industry act toward a more sustainable future.

For this reason, CSBA operates as a think-and-do tank. We work with our members to identify barriers and challenges that prevent climate-positive business change from happening. Then, we take a systems perspective and collaborate with industry partners to launch strategic, targeted projects and pilots with the potential to create scalable change across the industry.

This action-oriented strategy benefits greatly from close collaborations with existing industry organizations that have been driving sustainability and green building for decades. CSBA's intention is to charge up these organizations and build momentum to advance our shared goals.

2024 Action Projects

The Responsible Buildings Pact

Challenge: How to get the industry to consistently consider and use lower-carbon materials and designs across the value chain?

Responsible Buildings Pact

With existing technology, it's possible to reduce the embodied carbon in buildings by up to 40%.[2] However, many emerging lower-carbon materials aren't being adopted and used by the industry everywhere they could be. One reason for this is procurement, where projects are often won based on lowest-cost bids. There can also be industry culture challenges and risk aversion across the value chain that prevent newer materials from being considered.

To address this, CSBA launched the *Responsible Buildings Pact,* a cross-industry agreement aimed at ensuring lower-carbon materials are consistently considered and used where they make sense. The Pact, which formally launched in June 2024, now includes 37 organizations, including developers, consultants, contractors and supporters from across the value chain.

By joining the Pact, companies commit to putting in place a process to consistently consider lower-carbon materials or designs and then report publicly on the outcomes of the consideration processes. As part of the Pact, signatories should always use the right material for the job, but they commit to always ask the questions to see if they can do better.

[2] *RWDI, Climate Smart Buildings Alliance: Decarbonizing Canada's Building Sector.* November 2023.

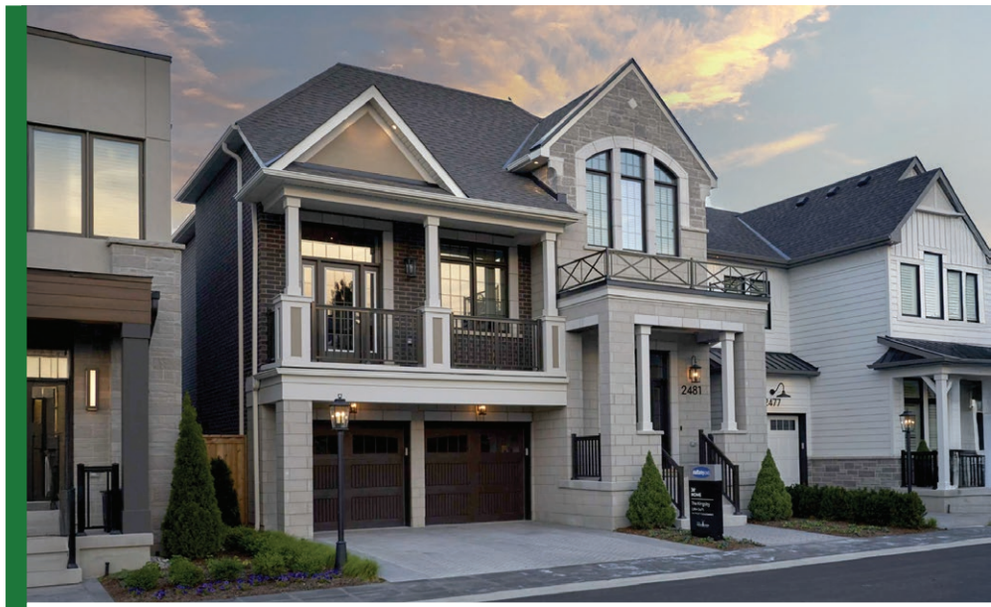
Climate and Consumer Smart Housing Model

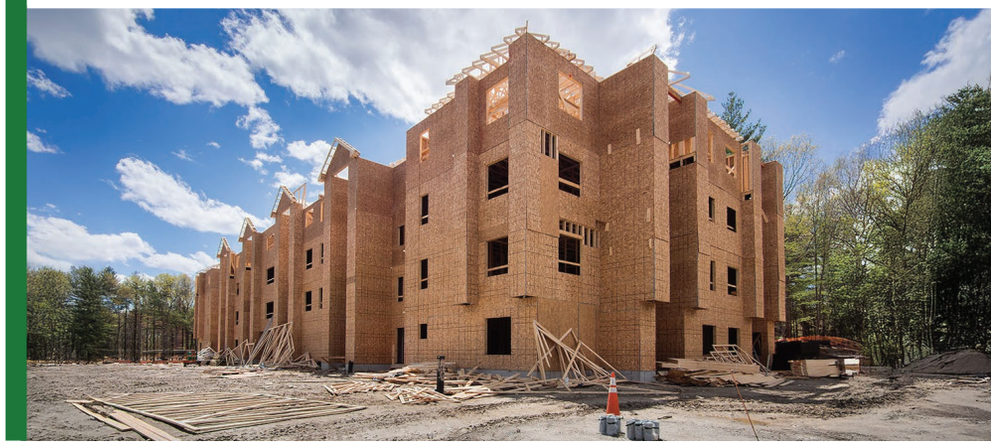
Challenge: How do we strengthen building codes to drive sustainability while recognizing housing affordability challenges?

Too often, sustainability is put at odds with affordability, especially when it comes to housing. Canada has a target of building almost 3.9 million new homes by 2031, and we need to find ways to do this that do not add to the stock of inefficient buildings that need to be retrofitted in the future.[3] Many of the design and material choices in a building have the potential to significantly reduce its carbon impact without significant cost implications. Unfortunately, there isn't a clear way of assessing the cost to climate impact.

To fill this gap, CSBA is working with the National Research Council to develop a Climate and Consumer Smart Housing Model, a tool that considers lifetime cost and lifetime carbon of building decisions and identifies design and material optimizations that offer solutions for both. This project will look at theoretical designs and be made real through a series of living labs in building projects of CSBA members.

The end goal is to develop solutions and guidance that can feed into Canada's building code committees as well as robust affordability and sustainability data sets that support climate-smart provincial building codes across Canada.





[3] Government of Canada, *Budget 2024.* April 16, 2024

Mass Timber Insurance Action Plan

***Challenge:* Mass timber insurance is more expensive than conventional building materials – a significant barrier to further adoption. How can this be reduced?**

Mass timber represents a major economic and sustainability opportunity for Canada. While the number of mass-timber projects is growing rapidly, especially in Western Canada, elevated insurance rates are consistently cited as a barrier preventing more projects across the country from embracing this innovative, carbon-storing material.

In partnership with the Canadian Wood Council and a community of more than 20 insurance organizations, CSBA developed a Mass Timber Insurance Action Plan aimed at addressing some of the root causes of elevated insurance rates, including the volume and specificity of data and public research related to risk and loss. The Plan also looks at creating a mass timber-specific ratings system for contractors and exploring reinsurance solutions that could create more competition in the market. Phase 1 of the Action Plan kicked off in October 2024 in Vancouver, and we plan to work with insurers to determine the feasibility of solutions over the next year, culminating in a phase 1 report to be released in summer 2025.

As we pilot and eventually scale cross-industry solutions, we anticipate a more normalized insurance market for mass-timber construction will help grow the timber construction industry across Canada. Additionally, we believe solving insurance issues for mass timber will pave the way for other emerging biomaterials to address risk and insurance concerns early on, leading to faster market adoption.

CSBA thanks Natural Resources Canada's Green Construction through Wood program for support of the Mass Timber Insurance Action Plan.

Commercial Retrofit Planning Pilot

***Challenge:** Roughly 85 per cent of existing buildings need to be retrofitted to hit 2050 targets, but right now, there is a limited business case for commercial building owners to pursue retrofits. How can we make retrofits worth it for more commercial building owners?*

Canada needs the rate of building retrofits to triple.[4] In the commercial building space, this is especially challenging as remote work is shifting the market. At present, many pathway studies identify how buildings can decarbonize, but unfortunately, relatively few of those plans turn into real projects.

Many stakeholders and supporters who work with commercial buildings, including banks, insurers, utilities, finance agencies, municipalities, contractors, and tenants, have an interest in seeing the buildings they work with decarbonize and become climate resilient. Many offer incentives or special green benefits, yet these incentives are often dispersed, uncoordinated, and can be challenging for smaller building owners to access or understand.

To address this, CSBA is working with 15 organizations on a pilot in Ottawa aimed at developing a coordinated approach to help owners identify the incentives or opportunities (e.g., reduced financing rates, better insurance terms) that could improve the case for a retrofit. It also helps stakeholder/supporter organizations identify, coordinate and tailor solutions to building typologies with the potential to start retrofits now.

In the end we aim to develop a system that makes it easier for commercial building owners interested in decarbonizing to find partners to support them – and easier for potential partners (e.g., banks, utilities, insurers, municipalities) to tailor their supports for maximum impact.

[4] IEA's *World Energy Outlook Report,* December 2021

Blended Finance for Affordable Green New Homes

High-efficiency new homes can often come at a premium price that consumers are reluctant to pay. Can we bridge this gap and make new homes more affordable and more sustainable at the same time?

Canada will build millions of new homes in the next decade. However, these homes must be energy-efficient, low carbon and not add to the millions of existing homes that require retrofitting. By taking thoughtful steps during design, procurement and construction, we can significantly reduce the carbon footprint of new homes at a lower cost than retrofitting them after the fact.

CSBA and its members are collaborating with several municipalities and government departments and agencies to investigate the potential for blended finance and mortgage structures to make new homes more affordable and sustainable at the same time. In 2025, we aim to support a feasibility study of various options and work with federal and provincial stakeholders to develop and test potential program designs.

We hope this project will help identify and pilot blended finance models to make low-carbon, high-performing homes the smart financial choice for builders and consumers.

CSBA 2024 Progress by the Numbers

Growth from **3** initial founding members to **7** CSBA member companies

10 months of project action

37 organizations joined the Responsible Buildings Pact Pilot

Co-hosted **2** Solutions Lab events including **100+** organizations

7 Pilots in progress / under development as part of 2024 CSBA Action Projects

5,000+ visits to CSBA website – buildingsalliance.ca

34 insurance & building industry collaborators participating in Mass Timber Insurance Action Plan

Collaborating on solutions development & pilots with **5** NGOs or Government agencies

$362,000 in matching government funding secured for priority projects – leveraging industry contributions

Where We Go from Here — 2025 Plans & Priorities

CSBA was created to lead an industry through systems change. We have gained a lot of momentum in a year, yet we are at the very start of a massive industry transformation. There are countless more challenges and barriers that need to be tackled, and CSBA aims to be the catalyst working with others across the industry to bring impactful ideas into the industry mainstream.

As we move into 2025, we will continue advancing the projects listed in this report, and we hope to launch a suite of action projects in new areas. We have bold goals, and we know that achieving them will require a delicate balance of big and small actions adding up to sustainable change across the industry.

We look forward to welcoming new partners to our alliance and to working with public- and private-sector collaborators as we continue to lead the climate-smart building transformation.

To learn more CSBA, visit buildingsalliance.ca