BUILDING TO ZERO EXCHANGE

BTZx ENGAGEMENT & ACTION

REPORT #2

The Net Zero Regulatory Environment

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ACKNOWLEDGEMENTS

NOVA SCOTIA

BUILDING TO ZERO EXCHANGE

Welcome to BTZx's Engagement & Action Report

Prepared for

NOVA SCOTIA'S DEPARTMENT OF ENERGY

INTRODUCTION

On May 28, 2024, BTZx convened building sector representatives for a succession of roundtable discussions on the topic of barriers to hitting net-zero targets. This is a report on what we heard and the proposed actions for advancing our collective impact.

The Context

The Nova Scotia building sector is charting an exciting but challenging waters as it steers toward net-zero emissions in building construction. But no sector travels alone and without navigational aids; the broader regularly environment can help guide the way – or lead us off-course.

It is critical to have clear definitions of net zero targets, improved training, better coordination among regulatory bodies, and support during the transition to greener buildings.

We need a comprehensive map to help show the way to a carbon-neutral future.

Our Methodology

BTZx brought together a range of participants connected to the building sector for a facilitated series of cross-sectoral conversations during one afternoon. Groups were presented with key questions to answer while notetakers organized their contributions into three categories - challenges, opportunities, and next steps.

Five aims

1. Identify the main barriers hindering progress toward the net-zero goals.
2. Explore potential solutions addressing barriers.
3. Formulate actionable recommendations to enhance the regulatory frameworks and industry readiness.
4. Explore opportunities for aligning industry practices with regulatory requirements
5. Promote innovation in building design and construction.

Who was invited

- Owners and property managers for residential, commercial, and high-rise developments buildings representatives
- Developers
- Design professionals
- Energy efficiency experts
- Policy analysts
- Government representatives
- Construction industry associations representatives

The range of participants was chosen to ensure an exploration of the issues from many angles, including policy, planning, economic, and community perspectives.

The Conversations
Five Key Questions

The group discussions were framed by several pivotal questions:

1 What are the existing technical, financial, and regulatory challenges in adopting net-zero building codes?

2 How can we improve training and education for building officials and industry professionals?

3 What are the key components of a roadmap to achieve net-zero emissions in the sector?

4 How can a collaboration between the industry and provincial government be enhanced?

5 What additional barriers are present in the current policy and regulatory environment?

The Conversations
A summary of discussions

The dialogue first identified challenges and then opportunities:

FIVE CHALLENGES

1

Training and Education: There is a lack of adequate training for both building officials and industry professionals. As new building codes and regulations are introduced, there is an urgent need for comprehensive training programs that cover the specifics of net-zero practices, including tiered codes, energy efficiency measures, and integrated design processes. Without proper training, there is a risk of inconsistent implementation and non-compliance with new standards.

2

Regulatory Coordination: Varying regulations and standards across jurisdictions can lead to confusion and inefficiencies. A unified approach to code adoption, where provincial and municipal regulations are aligned, is necessary to streamline the process and ensure that all stakeholders are on the same page.

3

Cost and Incentives: Achieving net-zero emissions, particularly the last 25% of target, can be costly, particularly to retrofit existing buildings and construct greener high-rise developments. Financial incentives and support mechanisms to mitigate these costs and make net-zero practices more economically viable are required to speed up adoption of net-zero building practices.

4

Definition and Targets: There is a lack of clarity on a standardized definition of net-zero. Builders and developers need a clear set of guidelines, clear definitions, and achievable targets to ensure the industry can align its practices with regulatory requirements.

5

Design Cost and Budget Constraints: High construction and electrification costs are significant barriers, particularly in the context of peak heating loads and the complexities involved in fully electrifying buildings. It is also important to find cost-effective solutions, such as identifying "sweet spots" where carbon neutrality can be achieved without incurring prohibitive costs.

The Conversations
A summary of discussions

The dialogue first identified challenges and then opportunities:

FOUR OPPORTUNITIES

1 **Building Official and IDP Training**: Existing training initiatives, such as Building Official Training and Integrated Design Process (IDP) Training, provide a foundation that can be expanded to meet the growing needs of an industry preparing to implement net-zero practices.

2 **Roadmap Development**: A comprehensive roadmap would outline the steps necessary to achieve net-zero, including clear milestones, funding timelines, training requirements, and mechanisms for collaboration. It should be a living document that is regularly updated to reflect new insights and changing conditions in the industry.

3 **Collaboration**: By fostering regular engagement sessions, consensus-building activities, and joint initiatives, government, industry, and other stakeholders/rightsholders can work together more effectively to address common challenges and achieve shared goals.

4 **Industry Preparedness**: While there is a strong willingness within the industry to build to higher standards, this requires comprehensive information and clear communication about what these standards entail. Providing the industry with a well-defined roadmap and clear timelines for code adoption will be crucial in ensuring that builders and developers are ready to meet new requirements.

The Next Steps
Eight Actions and Strategies

The BTZx Roundtables are ultimately focused on identifying actionable insights and recommendations. These conversations are the start of an ongoing dialogue on solutions.

NEAR-TERM ACTIONS

1 **Immediate Training Programs:** Targeted training programs for building officials and industry professionals that focus on the new building codes, the specifics of net-zero practices, and the latest industry changes. Practical workshops, online courses, and certification programs should be developed to ensure that all stakeholders have the knowledge and skills necessary to comply with new regulations.

2 **Consensus Polling:** Conduct surveys among stakeholders to gather consensus on key regulatory changes and training needs to ensure the most pressing issues are addressed first.

3 **Clear Net-Zero Definitions:** Establishing clear, standardized definitions and targets for net-zero emissions is essential. These definitions should be tailored to different building types and projects, and should be developed in collaboration with industry experts and regulatory bodies.

4 **Jurisdictional Review:** Review how other regions are approaching net-zero goals, to identify best practices that can be adapted to the Nova Scotia context.

The Next Steps

LONG-TERM STRATEGIES

1 **Comprehensive Roadmap to Net-Zero:** A detailed and regularly updated roadmap would outline the steps needed to achieve net-zero, including code adoption, training, and financial incentives. It should be adaptable to new insights and changing industry conditions.

2 **Holistic Policy Approach:** Policies that address the interconnected nature of building design, cost, and regulatory requirements would help balance the need for innovation with the practical realities of building design and construction. These policies should consider the lifecycle costs and benefits of different design choices, ensuring that sustainable and cost-effective solutions are prioritized.

3 **Continuous Engagement:** Maintaining ongoing dialogue between stakeholders/rightsholders is essential for adapting and refining strategies. Regular check-ins, feedback sessions, and collaborative problem-solving activities ensure that challenges are addressed proactively.

4 **Integration of Resiliency Measures:** Strategies for integrating climate resiliency measures into building retrofits and new construction projects ensure buildings are not only energy-efficient but also capable of withstanding and adapting to climate impacts.

Thank You

If you have questions in general or for your own projects, or if you wish to request a presentation of our results, please reach out to our team. Advancing to a sustainable and inclusive net zero future is a collective effort.

Contact us

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