



City of
Peterborough

To: **Members of the Peterborough Environmental Advisory Committee**

From: **Michael Papadacos, Interim Commissioner of Infrastructure and Planning Services**

Meeting Date: **May 18, 2022**

Subject: **Energy Efficiency and Sustainable Construction in Building Codes, Report PEAC22-012**

Purpose

A presentation to provide the Peterborough Environmental Advisory Committee (PEAC) with an overview of the Ontario Building Code and how energy efficiency and sustainable construction can be supported within the Provincial regulatory framework.

Recommendation

That the PEAC approve the recommendation outlined in Report PEAC22-012 dated May 18, 2022, of the Interim Commissioner of Infrastructure and Planning Services, as follows:

That the presentation from Dean Findlay, Chief Building Official and Manager of Building Services, be received for information.

Budget and Financial Implications

There are no budgetary or financial implications associated with the recommendation.

Background

Construction of all buildings in Peterborough is regulated by the Ontario Building Code (OBC). The OBC ensures that a minimum building standard is being met that covers a building's construction, design, and performance to establish safeguards for structural and human health considerations. Regular amendments are introduced to the OBC that increase the minimum building standard as improvements in building practices and materials become available in the construction sector. Municipalities are required to enforce the OBC but are restricted in developing building by-laws that are non-conforming with the OBC. Moreover, the provincial Building Code Act will overrule any by-laws seeking to modify municipal building codes with exceptions for jurisdictions that are granted permission to amend local building codes, such as the City of Toronto.

The National Energy Code for Buildings (NECB) and Section 9.36 of the National Building Code (NBC) generally regulate energy efficiency and sustainable construction in Canada. However, Ontario has alternative energy efficiency standards referred to as SB 10 and SB 12 of the OBC. Presently, sustainable construction is not well advanced in the NECB, the NBC or the OBC. The Objective Based Codes do allow for innovations in building performance and permit 'alternative solutions' for exterior envelopes, insulation materials, HVAC systems, and other construction elements to improve the sustainability of building design.

Municipal incentive programs can be offered to developers to support sustainable construction design that exceeds the OBC minimum standard. However, any sustainable construction incentive program established by a municipality that seeks to surpass the OBC minimum standard will be a voluntary program for developers and cannot limit submissions of OBC-compliant building designs. A jurisdictional scan of Ontario municipalities revealed several incentive measures utilized to advance sustainable construction and include the following examples:

- The City of Toronto initiated a development charge refund for builders who voluntarily pursued Tier 2, 3, or 4 of the Toronto Green Standard sustainable design guidelines for apartments, semi and detached homes, and non-residential buildings.
- The City of Burlington created an Urban Design Award to incentivize developers voluntarily undertaking sustainable building construction, with the award going to the developer with the highest number of sustainable building and development guidelines met.
- The Municipality of Clarington is considering developing a building permit fast-tracking process for construction projects that add mitigative and adaptive measures in proposed building designs.
- Township of Douro-Dummer created the first embodied carbon reduction program in Canada using an FCM grant to offer building permit fee rebates of 40

percent for all approved projects that meet township greenhouse gas targets and an 80 percent rebate for net-zero ready construction.

- The Town of Caledon introduced a Green Development Charge Discount of 5 percent for commercial and industrial buildings that install a minimum percentage of solar hot water and solar photovoltaic systems.
- In partnership with the Canadian Green Building Council (CGBC), the Town of Caledon added development charge discounts of 20 to 27.5 percent for institutional, commercial, and industrial buildings that receive various levels of LEED certification, which the CGBC reimburses to the developer.
- The Town of East Gwillimbury established a Sustainable Development Incentive Program Implementation Guide to allow developers to obtain additional servicing allocation by meeting various sustainability requirements such as improving water efficiency of buildings.
- The City of Whitby is currently creating a Whitby Green Standard and is considering various financial and non-financial incentives such as servicing allocations, development charge discounts, recognition awards, and expedited approval process for voluntary sustainable construction design.

The introduction of any of the above-listed sustainable construction measures can support community mitigation goals and reduce the impact of new buildings adding additional greenhouse gas emissions to the community while working within the framework of Provincial regulations and codes.

Submitted by,

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