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Potential Changes to Ontario's Building Code  
Summer and Fall 2017 Consultation:  
Renovations in Houses and Large Buildings  
(Part 11)

# Purpose

- To provide information on proposed changes to the Building Code for energy efficient renovations in existing houses and large buildings (Part 11 renovations) included in the Overview Summary Document entitled “[Potential Changes to Ontario’s Building Code: Summer and Fall 2017 Consultation](#)”.
- To respond to questions of clarification and technical issues.

# Context – Climate Change Action Plan

- “... the government intends to update the Building Code with long-term energy efficiency targets for new **net zero carbon emission** small buildings that will come into effect by 2030 at the latest, and consult on initial changes that will be effective by 2020. Ontario will consult on how to best achieve these targets through Building Code improvements.”

Source: [Climate Change Action Plan June 2016](#)

# Energy Efficiency and Ontario's Building Code

- Energy efficiency requirements have been included in Ontario's Building Code since its inception in 1975, and have been enhanced in each subsequent edition.
- Ontario's Building Code is objective-based.
- Energy efficiency has been an objective since 2006.
- Since then, the Building Code has set “stretch codes” for intended future levels of performance improvement years before the energy efficiency requirements come into effect.
  - Requirements included in the 2006 edition of the Building Code came into effect in 2012. As a result, a new house built in 2012 consumed 60 per cent of the energy of an equivalent 2005 house.
  - Requirements in the 2012 edition of the Building Code further improved energy efficiency. These requirement came into effect in 2017. As a result, a new house built in 2017 will consume 50 per cent of the energy of an equivalent 2005 house.
- This makes Ontario's Building Code one of the most advanced energy efficiency regulations in North America.

# Next Edition of Ontario's Building Code: Consultations

- The ministry is currently seeking input on proposed requirements to reduce greenhouse gas (GHG) emissions in the building sector through changes to the Building Code in support of the government's Climate Change Action Plan.
- Proposals are detailed in the Overview Summary Document "[Potential Changes to Ontario's Building Code: Summer and Fall 2017 Consultation](#)".
  - Note: 22 of the 25 code change proposals related to Climate Change Action Plan commitments.
- Proposals include:
  - higher energy efficiency performance levels for houses and large buildings in the next Code cycle
  - requirements for EV charging in multi-unit residential buildings
  - energy efficiency requirements for renovations in houses and large buildings
  - requirements that support climate change adaptation (hurricane straps)
- The deadline for providing feedback is **September 29, 2017**.

# Building Code Change Implementation Timelines: Proposed to come into effect January 1, 2019

## Proposals include:

- energy efficiency requirements for renovations
- electrical vehicle charging in new multi-unit residential buildings
- green building standards and green roofs
- referencing a new standard for grey-water reuse
- water conservation
- solar-ready roofs
- hurricane straps in new houses
- option to meet air tightness targets in exchange for credits in large buildings
- other technical proposals

# Building Code Change Implementation Timelines: Proposed to come into effect 2020

Proposals include:

- Energy efficiency requirements for **houses**:
  - continuous insulation
  - triple-pane windows and sliding doors
  - air leakage testing
  - further limitations to building envelope trade-offs
- Energy efficiency requirements for **large buildings**:
  - removal of insulation exceptions to reduce thermal bridging effects

# Building Code Change Implementation Timelines: Proposed to come into effect 2022

## Proposals include:

- 20 per cent decrease in energy **consumed by houses**:
  - air tightness requirement
  - improved wall insulation
  - under-slab insulation
  - more energy efficient triple-pane windows and sliding doors
  - eliminating building envelope trade-offs
  - enhanced mechanical equipment efficiency



# Building Code Change Implementation Timelines: Proposed to come into effect 2022

Proposals include:

- 20 per cent decrease in energy **consumed by large building types**:
  - mandatory air tightness testing without concern for results
  - further limitations to building envelope trade-offs
  - expansion of heat or energy recovery requirements to apartment buildings

# Proposed Requirements for Renovations to Houses and Large Buildings: Effective 2019

## Key points

- It is proposed that:
  - where no material alteration or repair is contemplated for an existing building, energy efficiency upgrades are not required
  - Part 11 to be amended to add energy efficiency renovation requirements for renovations (i.e. when work is undertaken that materially alters or repairs the building envelope, such as roofs, floors and walls)
- Substantial opportunities exist to reduce GHG Emissions in buildings by improving the energy efficiency of existing buildings, which represent roughly 99 per cent of Ontario's building stock in any given year.
- Proposed requirements would apply to both houses and large buildings.

# Overview of Proposed Requirements

Energy Efficiency Measures for Part 9 residential buildings relate to:

- foundation walls
- walls, other than foundation walls
- ceilings below unheated attics or roof spaces
- roofs without attic spaces and exposed floor framing spaces
- windows, doors and skylights
- ventilation, air leakage and depressurization.
- mechanical systems

# Overview of Proposed Requirements

## Energy Efficiency Measures for All Buildings Other than Part 9 Residential:

- air barriers and vapour barriers
- roofs
- walls and fenestrations
- lighting
- ventilation, air leakage and depressurization
- HVAC equipment, systems, piping and ductwork Insulation
- service water heating equipment and piping insulation.

[Link for proposal # 2-CC-B-11-03-01 with Code References Div. B, 11.3.1.1, 11.5.1.1 & 11.6.](#)

# Provide Feedback

- Consultation period for proposed changes to the Building Code consultation will conclude **September 29, 2017**.
- Feedback on the content of the proposed Building Code changes should be submitted by completing the online comment form.
- Comments on the proposed Building Code changes and discussion items can also be sent by mail to:

2017 Next Edition Building Code Consultation  
c/o Building and Development Branch  
Ministry of Municipal Affairs  
16th – 777 Bay Street  
Toronto ON M5G 2E5

# Provide Feedback

- Technical Advisory Committees will meet after the consultation period closes to review comments and provide advice to the ministry.
- See Section 5 of the: “[Overview Summary Document - Potential Changes to Ontario’s Building Code: Summer and Fall 2017 Consultation](#)” for more details.
- Comments or questions of clarification can be submitted to:
  - by email: [buildingcode.consultation@ontario.ca](mailto:buildingcode.consultation@ontario.ca)
  - by phone: 416-585-6666.