Agenda

• Introduction

• Proposed changes and areas of interest
  • Tiered Codes
  • Envelope measures
  • “Shell” buildings
  • Support for EnerGuide

• Advocating for a transition to absolute energy performance targets

• Public review process

• Discussion
Efficiency Canada is the national voice for an energy efficient economy.

Our mission is to create a sustainable environment and better life for all Canadians by making our country a global leader in energy efficiency policy, technology, and jobs.

We conduct rigorous policy analysis; communicate compelling narratives; and convene and mobilize Canada’s dynamic energy efficiency sector.

Efficiency Canada is housed at Carleton University’s Sustainable Energy Research Centre.
Support for Model Codes

• Timeline for tiers
• Energy labelling
• Build capacity
• Support compliance
• Transition to absolute performance targets
• Communications and stakeholder councils
Tiered Codes have arrived!

1527 of the NECB proposes 4 Tiers
• Tier 1 equivalent to NECB 2020
• Tiers 2, 3 and 4 are 25%, 50% and 60% better than reference

1617 of the NBC proposes 5 performance Tiers
• Tier 1 similar to the balance of Section 9.36
• Tiers 2-5 similar to ENERGY STAR, R2000 and NZER

1617 also offers a 4 Tier prescriptive path
Setting the stage:

Strategic supports for the Tiered Code

1. A roadmap for progressive tiers
2. Build capacity
3. Communication materials
4. Clarify NECBs highest tier
5. Phase out prescriptive paths
NECB Envelope measures

• 1536 reduces U-values for fenestration

• 1537 reduces U-values of the building assembly

• 1541 reduces the maximum allowable prescriptive fenestration and door to wall ratio (FDWR)

• 1414 introduces air tightness testing procedures and a performance value for whole building

• 1610 introduces requirements on the measurement of airtightness in buildings
Closing the “shell” loophole

• 1409 of the NECB makes clear that a building is not considered complete until it is whole

• Ensures that alterations to and within a “shell” buildings comply with the NECB

• Less confusion for AHJs
Support for the EnerGuide Rating System (ERS)

1608 aligns NBC Section 9.36.5 with ERS
1620 introduces the ERS as an alternative compliance path NBC Section 9.36.5

Together, these changes:

• Enable performance-based codes, home energy labeling, and housing energy programs
• Streamline efforts for builders and reduces duplication
Transition towards absolute energy performance targets

Reference approach
- Not suited to a transition to NZER
- Creates confusion amongst industry
- Does not predictably reduce energy use

Absolute approach
- Improves consistency in energy & environmental outcomes
- Incorporates passive measures
- Increased resilience
The Public Review, not a typical submissions process...

- Only comments directly related to a proposed change
- Must specifically address previously identified issues
- The number of comments is not considered
- Backed with technical reasoning
- Only submitted through the CCBFC comment form
Questions?
Overview: Proposed Tiers of the 2020 National Energy Code for Buildings (NECB)

• Minimum Tier 1 requirements are equal to the prescriptive provisions of NECB 2020.
• Tier 2-4 energy performance levels can be reached using current technology.
• Tier 4 targets generally meet or exceed ASHRAE targets for NZER.
• Code compliance is based on relative performance or prescriptive criteria

Overview: Proposed Tiers of the 2020 National Building Code (NBC)

• Performance-based with 5 tiers and prescriptive path based on 4 tiers.
• Tier 1 generally equal to Section 9.36. of NBC 2015.
• Tiers 2-5 roughly follow ENERGY STAR, R2000, and CHBA’s NZER
• Tier 5 more difficult to reach in cold climate zones and/or homes heated with natural gas