

National Energy Codes Update

PREPARED FOR: CLEAN AIR PARTNERSHIP
NEW BUILDINGS LOW CARBON TRANSFORMATION WEBINAR
SEPTEMBER 18, 2019

ANDREW PRIDE CONSULTING

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Topics

- ▶ National Code Development Process
- ▶ Tiered Energy Codes
 - ▶ NBC Section 9.36. Tiers (applies to Part 9 Housing)
 - ▶ National Energy Code for Buildings (NECB) – applies to all other buildings
- ▶ Air Tightness testing
- ▶ Alterations to Existing Buildings

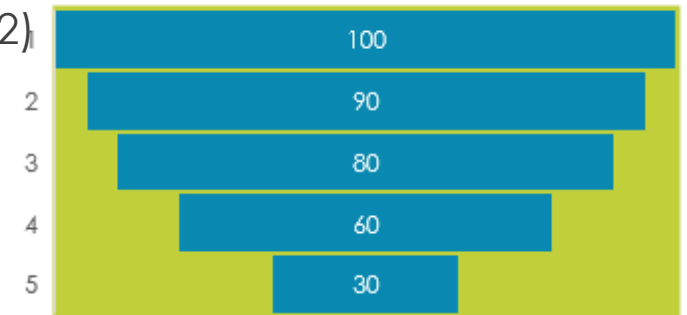
NOTE:

The discussion and presentation are provided for context only. They represent the author's opinion and are not official positions of the code committee. Codes Canada will be issuing the official proposed changes as part of the public review process expected to commence late October 2019

Proposed Tiered Energy Codes – NBC 9.36.

- ▶ Five Tiers proposed; targets performance level of voluntary programs, expressed as reduction in energy use
 - ▶ Tier 1 – 0 % (Base prescriptive code (no material improvements since 2012))
 - ▶ Tier 2 – 10% (Current minimum construction practice)
 - ▶ Tier 3 – 20% (ENERGY STAR® level of performance)
 - ▶ Tier 4 – 40% (R-2000)
 - ▶ Tier 5 – 70% (CHBA's NZER labeling)
- ▶ Two compliance paths proposed for Tiers
 - ▶ Performance based
 - ▶ includes Energy Performance, Envelope Performance, and Air Tightness
 - ▶ Prescriptive option packages
 - ▶ point system to achieve Tiers 1 and 2 (other tiers to be established in future)

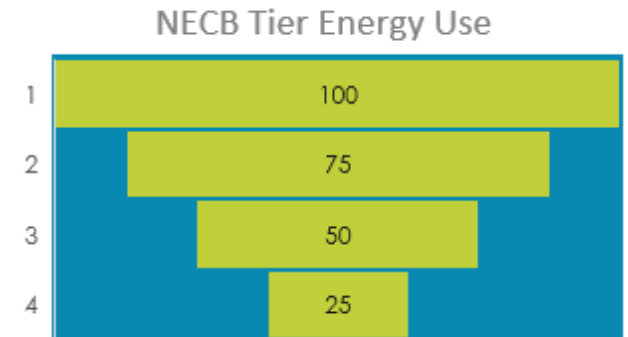
Part 9 Housing Tier Energy Use



Small Homes may receive automatic energy credits

Proposed Tiered Energy Codes – NECB

- ▶ Four Tiers proposed; target performance expressed at % energy use compared to reference
 - ▶ Tier 1 – 100% (i.e. matching prescriptive path energy use)
 - ▶ Tier 2 – 75% (i.e. 25% improvement over prescriptive code)
 - ▶ Tier 3 – 50%
 - ▶ Tier 4 – 25% (approaching NZER)
- ▶ Single compliance path for Tiers
 - ▶ Performance based, only Energy Performance
 - ▶ Complexity and variety of buildings using NECB limit ability to have prescriptive tier options



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- ✓ Tiered Energy Codes
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