



Next Steps on Energy Efficient and Low Carbon New Buildings

February 24, 2025

Purpose

- ▶ To inform and seek Council direction to engage on policies related to City of Kelowna objectives for energy efficient and low carbon new buildings

Previous Council Direction

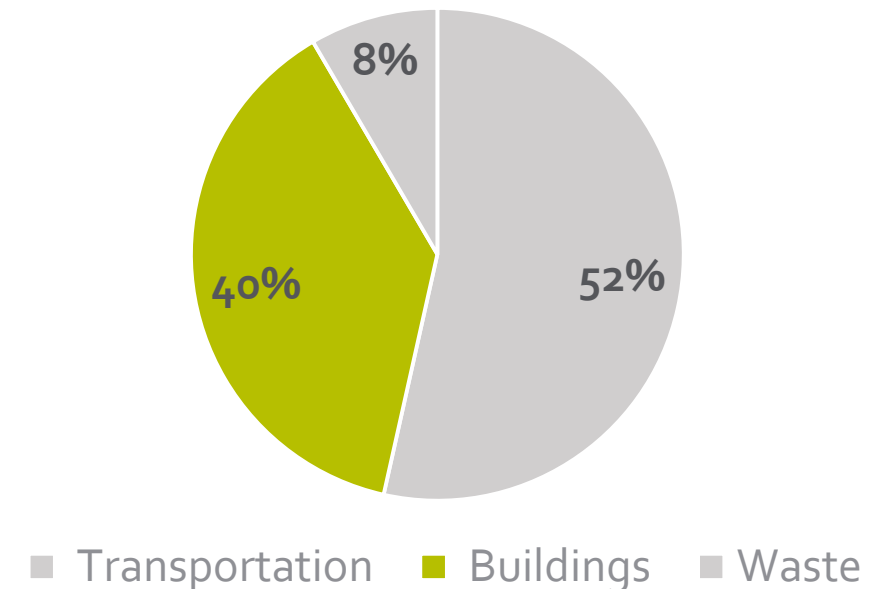
Kelowna Official Community Plan (OCP) and Climate Resilient Kelowna Strategy

*"Accelerate adoption of low-emission,
efficient new buildings"*

Kelowna GHG Targets

- ▶ 40% below 2007 levels by 2030; and
- ▶ Achieve net zero by 2050

Kelowna GHG Emissions



Energy Step Code

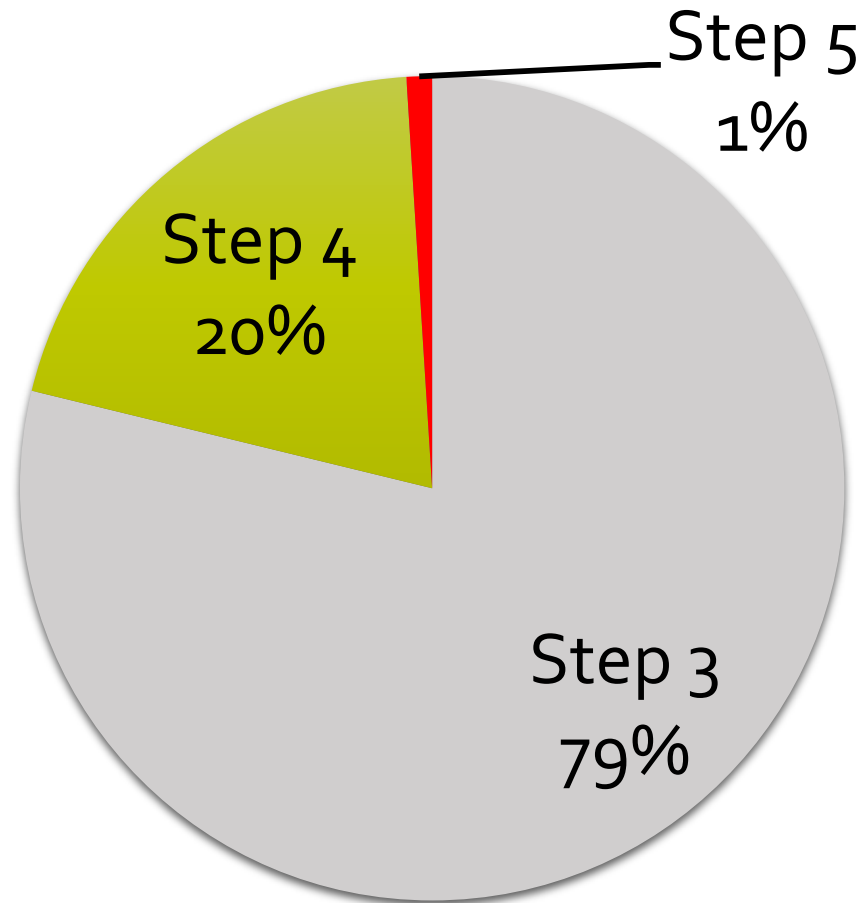
Energy Efficiency Improvement

Provincial Adoption Timeline



Kelowna since 2021

Part 9 Homes: Energy Step Code Readiness



(2021-2023 dataset)

- ▶ Most homes built to base building code (Step 3)
- ▶ 21% already achieving Step 4 or better
- ▶ Step 4 is achievable for all new homes with minor improvements in building practice

Origin of Zero Carbon Step Code

“By 2030, all new buildings will be zero carbon”

– *CleanBC Roadmap to 2030*



Roadmap to 2030



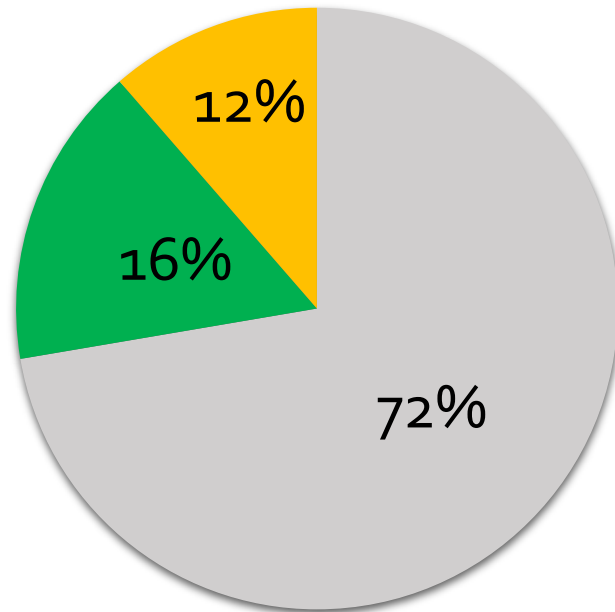
Zero Carbon Step Code

2030

- ▶ Reduces the carbon emissions of new buildings through a series of emissions level "steps"
- ▶ Requires gradual improvements through 2030
- ▶ Provincial implementation of EL-1 "Measure only" on March 10, 2025



Part 9 Homes: Zero Carbon Step Code Readiness



- Base building code
- Moderate Carbon Performance (EL-2)
- Strong and Zero Carbon Performance (EL-3 and EL-4)

- ▶ Most homes built to base building code
- ▶ 27% already achieving EL-2 or better
- ▶ EL-2 is achievable in new homes with minor improvements in building practice

(2021-2023 dataset)

A Complementary Policy Approach

Energy
Step Code



Zero Carbon
Step Code

Focus: Lower Energy Usage

- ✓ Airtight Building
- ✓ Thermal Efficiency (e.g. insulation)
- ✓ Efficient Mechanical Equipment

Focus: Lower GHG Emissions

- ✓ Lower Carbon Energy For Space and Hot Water heating



Carbon Emissions

Benefits of Engagement and Accelerated Adoption

- ▶ Significant GHG emissions reductions for lifecycle of buildings
- ▶ Future-proofing: avoid expensive, costly, and challenging future upgrades
- ▶ Explore community preference for regionally tailored policy
- ▶ Preparedness for when higher steps become provincially mandated (anticipated 2027)



Staff Recommendation

- ▶ THAT Council receives, for information, the report from the Climate Action and Environmental Stewardship Department dated May 24, 2025, with respect to Energy Step Code and Zero Carbon Step Code
- ▶ AND THAT Council directs staff to engage with the community on an Energy Step Code and Zero Carbon Step Code implementation plan that accelerates adoption of low-emission efficient new buildings



Questions?