

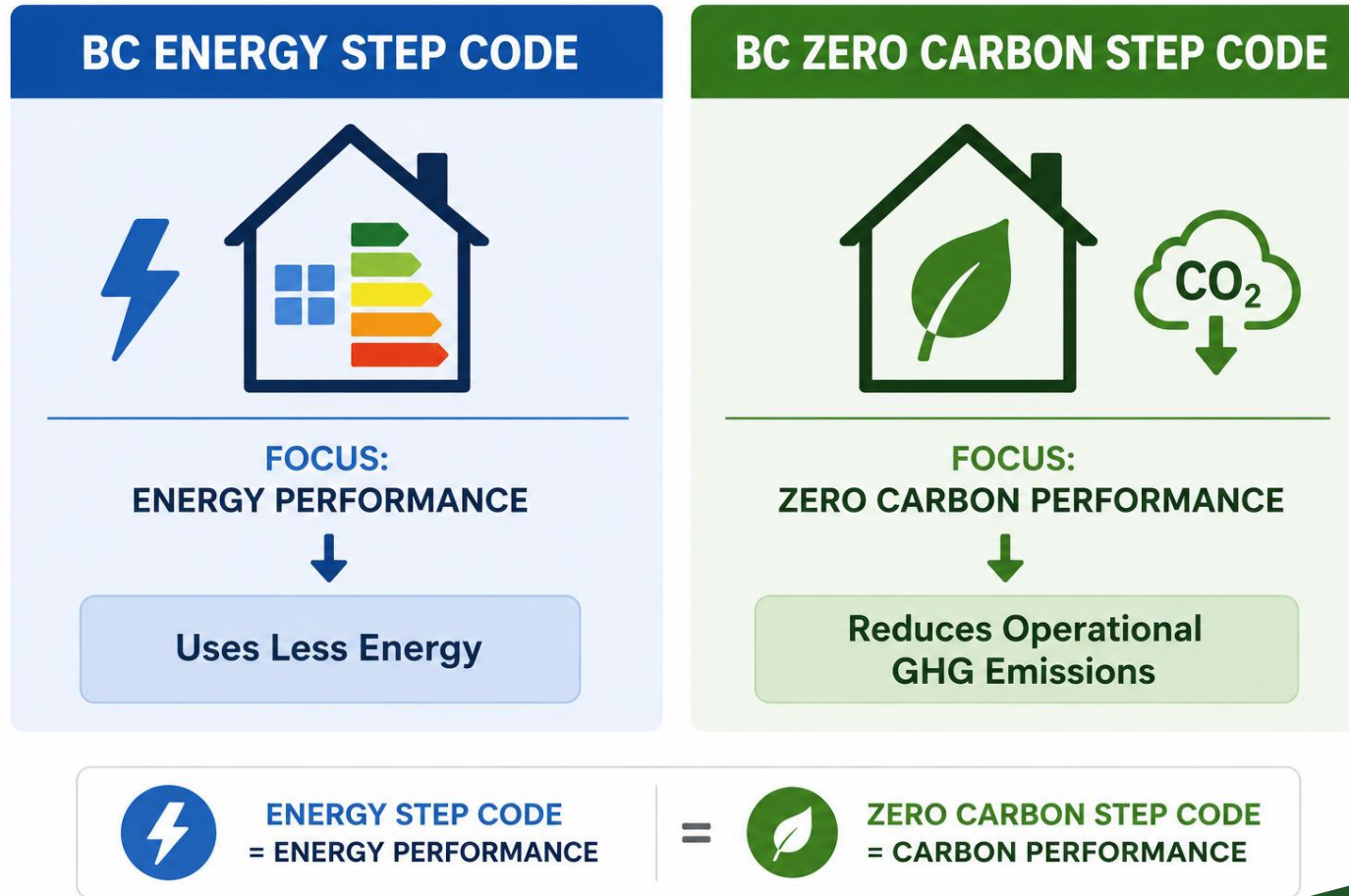
Step Code & Zero Carbon



Workshop

The City of Nelson acknowledges that it resides and operates within the unceded traditional territories of the Sinixt, the Syilx, and the Ktunaxa peoples.

Step Code & Zero Carbon

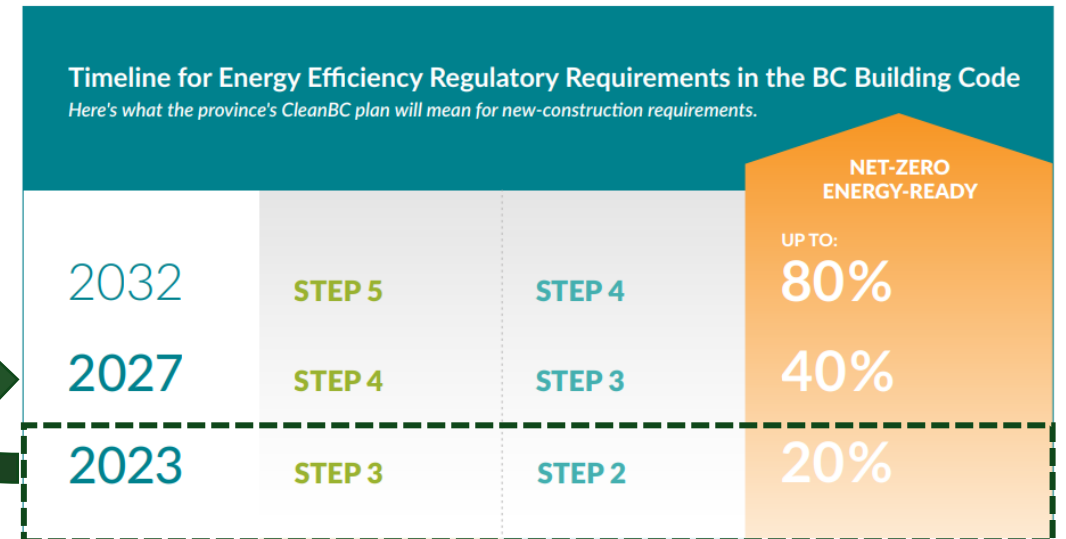


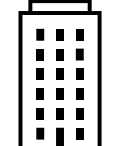
Step Code

Step Code Overview

- Established in 2017
- Roadmap for building performance over timeline
- Municipalities have the option to go beyond the Provincial minimum

What is the Provincial Timeline?



Building Types: Part 9 =  Part 3 = 

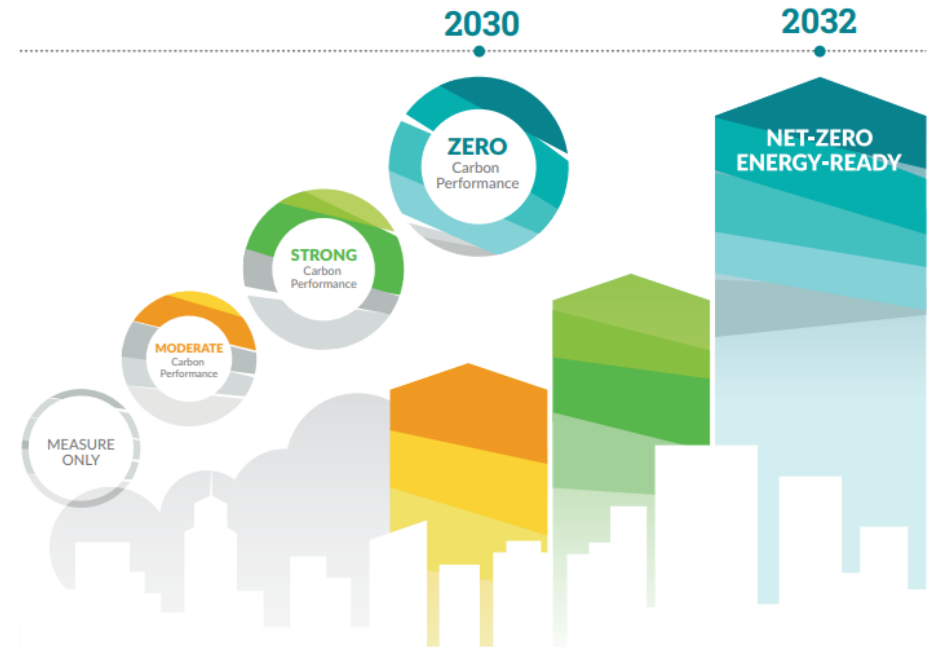
Zero Carbon

What Zero Carbon?

The Carbon Code has four levels focusing on GHG emissions :

- (EL-1) Level 1 – Measure only
- (EL- 2) Level 2 – Moderate carbon: either heating or hot water systems low-carbon
- (EL-3) Level 3 – Strong Carbon: both primary heating and hot water to be low-carbon.
- (EL -4) Level 4 – Near-zero operational emissions with high-efficiency mechanical systems

Timeline



Where are we today?

Part 9 (simple) - 2023

Two options:

1. Step 4 + EL-1 or
2. Step 3 + EL-3 (**step back**)

Part 9 (complex) - 2024

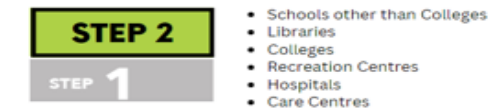
Two options:

1. Step 4 + EL-2 or
2. Step 3 + EL-3 (**step back**)

→ **"Step Back"** means trading one level down in **energy efficiency** (Step Code) while going one level or more in **carbon reduction** (Emissions Level)

Part 3- 2024

GROUP A - 'PUBLIC'



GROUP D & E - 'BUSINESS'



GROUP C - 'RESIDENTIAL'



Project Overview

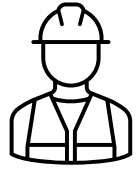
Why Now?

- 2019 – Began Step Code implementation
- 2023 draft roadmap
- 2025/26 Industry engagement & research

What we did:

- Building Community Feedback
- Cost considerations
- BCBC Changes & Clean BC & Natural Gas
- Local data

Building/Development Community Feedback



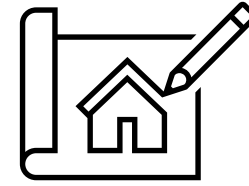
What We Heard

- Support for Energy Efficient Homes
- Need for clarity on timelines
- Simpler is better
- Step Code is familiar
- Zero Carbon needs more awareness

Overall Takeaway

- Local building community is generally supportive
- Success depends on:
 - Clear timelines
 - Simple, predictable requirements

Cost Considerations



Building Costs

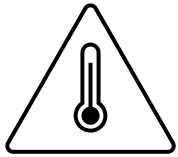
- Energy-efficient buildings don't have to cost more than code minimum
- Zero Carbon (EL-4) impacts
 - Range from slight savings to small increases (~0% to +2% depending on design)
- Overall takeaway
 - Typically cost-neutral to modest impact
 - Clear timelines help avoid costly redesigns

Operating Costs

- Lower energy use = lower operating costs
- Heat pumps perform well locally, and can provide the lowest operating costs in moderate climate zones

Other Considerations

Building Code Changes (2024 BCBC)



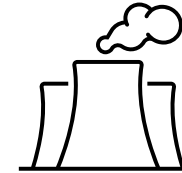
- 1 space must maintain $\leq 26^{\circ}\text{C}$
- Mechanical cooling needed

Clean BC – Provincial Direction



- Electrify heating
- 100% efficient new systems by 2030
- Existing systems remain permitted

Natural Gas & Zero Carbon Step Code



- Does not ban natural gas/ flexible approach Part 9
- Dual-fuel permitted*
- Backup systems* (fireplace & wood stove)

Local Data- Part 9 Proposed

Step Code Proposed

Step	Number of Units	%
3	9	32%
4	14	50%
5	5	18%

Zero Carbon (ZCSC) Proposed

ZCSC	Number of Units	%
EL-1	6	21%
EL-2	3	10%
EL-3	8	29%
EL-4	11	40%

Local Data- Part 9 Completed

Step Code - Completed

- 5 projects achieved a higher step
- 12 of 13 projects achieved Step 4 or higher

Zero Carbon (ZCSC)- Completed

- 4 projects achieved a higher level than proposed
- 12 of 13 projects achieved EL-3 or higher



Proposed Changes

2026 – Part 9 Buildings

- Step 4 + EL-3

Effective December 31, 2026

2028 – Part 9 Buildings

- Step 4 + EL-4

Effective December 31, 2028

Summary

- Remove step back option
- Provide clear timelines (pass both bylaws at the same time)
- Hold at Step 4, and wait until Province mandates Step 5
- Review Part 3 Building and bring forward proposed next steps in 2027

Questions?