



## THE CORPORATION OF THE CITY OF VERNON

### MEMORANDUM

**TO:** Patti Bridal, Chief Administrative Officer **FILE:** 3760-08  
**PC:** Terry Barton, Director, Planning and Community Services **DATE:** February 15, 2024  
**FROM:** Shawn Knuhtsen, Manager, Building and Licensing  
**SUBJECT:** **BC BUILDING STEP CODE AND BC ZERO CARBON STEP CODE**

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At its Regular Meeting of December 11, 2023, Council passed the following resolution:

*THAT Council direct Administration to report back on the strategic benefits of advancing both the BC Building Step Code and the BC Zero Carbon Step Code.*

The BC Energy Step Code (Step Code) was introduced in 2017 and is a provincial building compliance path that focuses on energy efficiency in new construction for both Part 9 buildings (homes and small buildings) and Part 3 buildings (large, complex buildings). Since May 1, 2023, the minimum energy performance in the BC Building Code is Step 3 for Part 9 and Step 2 for Part 3 buildings. As illustrated in the figure below, Step 4 and 5 are considerably more efficient than current requirements, with Step 5 being net zero ready. The Province has targeted 2032 for Step 5 for Part 9 buildings.



Accelerating implementation of the Step Code to Step 4 or 5 can pose challenges such as increased construction costs, resistance from stakeholders and development community, and potential economic impacts. Balancing the benefits of enhanced energy efficiency with the potential challenges, especially related to costs and industry adaptation, is crucial when considering the acceleration of the Step Code. The City has

not yet undertaken a review of the development industry's experience of implementing current Step Code requirements under current market and supply chain conditions.

The BC Zero Carbon Step Code was introduced as part of the BC Building Code updates that limits greenhouse gas (GHG) emissions from new construction. It forms part of the BC Building Code update that came into effect on May 1, 2023.

Similar to the Step Code, the Zero Carbon Step Code is available for municipalities to opt into and adopt implementation.

The Zero Carbon Step Code has four levels:

- **Measure-only** (GHG Emission Level 1) – requires measurement of a building's emissions without reductions, and is intended to build knowledge and capacity
- **Moderate Carbon Performance** (GHG Emission Level 2) – in most cases, will require electrification of either space heating or domestic hot water systems
- **Strong Carbon Performance** (GHG Emission Level 3) – in most cases, will require electrification of both space heating and domestic hot water systems
- **Zero Carbon Performance** (GHG Emission Level 4) – in most cases, will require the full electrification of the building

The Province has shared the implementation timeline for both the BC Energy Step Code and the Zero Carbon Step Code as follows:

	<b>Building Type</b>	<b>2023-MAY-01</b>	<b>2024</b>	<b>2027</b>	<b>2030</b>	<b>2032</b>
<b>BC Energy Step Code</b>	Part 9 Part 3	Step 3 Step 2		Step 4 Step 3		Step 5 Step 4
<b>Zero Carbon Step Code</b>		Optional Compliance Path	TBD*	TBD*	Zero Carbon Performance Level (EL-4)	

*\*The Province has indicated they plan to enact amendments to the BC Building Code in 2024 and 2027, but have not yet identified what level will be required.*

So far, 21 local governments in BC reference the Zero Carbon Step Code for new construction. To effectively implement the Zero Carbon Step Code, Administration recommends amending Part 15 of Building Bylaw 5900 to require GHG Emission Level 1 (measure only) of the Zero Carbon Step Code (Attachment 1). Should Council support the recommendation, all new building permit applications will need to meet performance requirements specified in EL-1 (measure only) of the Zero Carbon Step Code. In order to support the adoption of the Zero Carbon Step Code EL-1, Administration will provide adequate support, education and resources to the development community.

Administration is exploring the opportunity to assess greenhouse gas (GHG) emission scenarios with the 2024 Housing Needs Assessment to understand if and when advanced adoption of the BC Step Codes is needed to ensure housing developments align with the GHG emission reduction targets set out in the Vernon Climate Action Plan.

**RECOMMENDATION:**

THAT Council receive for information the memorandum titled “BC Building Step Code and BC Zero Carbon Step Code” dated February 15, 2024 and respectfully submitted by the Manager, Building and Licensing;

AND FURTHER, that Council support the proposed amendments to Part 15 of Building Bylaw 5900 to require buildings regulated by Part 9 of the BC Building Code to be designed and constructed to meet or exceed the performance requirements specified in GHG Emission Level 1 (measure only) of the Zero Carbon Step Code.

Respectfully submitted:

X 

Shawn Knuhtsen  
Manager, Building and Licensing

Attachment 1 – Proposed Zero Carbon Step Code Building Bylaw 5900 Amendment

  
Approved for the Agenda by the CAO