Corporate Policy

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Section:	Planning and Development	13
Sub-Section:	Policy Planning	6870
Title:	BC Energy Step Code and Zero Carbon Step Code Rezoning Applications	2019-03

Related Policies

Number	Title

Approvals

Approval Date: July 9, 2019	Resolution #: *RC19/329*
Amended: January 28, 2020	Resolution #: *RC20/082*
Amended:	Resolution #:
Amended:	Resolution #:

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Definitions

Energy Step Code means the Province of British Columbia's performance-based standard for energy efficiency in new construction requiring energy modelling and on-site testing to demonstrate minimum performance against metrics for building envelope, equipment and systems, and airtightness requirements, and including Step 1, Step 2, Step 3, Step 4, and Step 5, as defined in sections 9.36.6 and 10.2.3 of the Building Code, all as amended or re-enacted from time to time.

Low Carbon Energy System means a professionally operated and maintained, highly efficient mechanical system that supplies a building's space heating, cooling, and domestic hot water heating demand primarily from renewable energy sources and meets defined GHG limits.

Greenhouse Gas Intensity means a measure of a building's greenhouse gas (GHG) performance using the definition, calculation, and fuel type emissions factors established in the energy modelling guidelines referenced by the Energy Step Code, that is a calculated value determined through energy modelling and reported in kilograms of carbon dioxide-equivalent per square metre per year ($kgCO_2e/m^2a$).

Part 9 Buildings means a building defined in the British Columbia Building Code that includes single, two-family, attached, and apartment buildings up to three storeys and 600 square metres in footprint or less.

Part 3 Buildings means a building defined in the British Columbia Building Code that includes residential or business and personal services or mercantile occupancy "commercial" buildings larger than three storeys or 600 square metres in footprint, and includes apartments, offices, shopping centres, hotels, and some mixed-use buildings.

Zero Carbon Step Code means the requirements set out in sections 9.37 and 10.3 of the Building Code and includes GHG emission level EL-1, EL-2, EL-3, and EL-4.

- EL-1: means the requirements of GHG emission level EL-1, as set out in the Zero Carbon Step Code.
- EL-2: means the requirements of GHG emission level EL-1, as set out in the Zero Carbon Step Code.
- EL-3: means the requirements of GHG emission level EL-3, as set out in the Zero Carbon Step Code.
- EL-4: means the requirements of GHG emission level EL-4, as set out in the Zero Carbon Step Code.

Policy

Background

The Energy Step Code (ESC) is an alternative compliance path in the British Columbia Building Code (BCBC) that outlines increasing steps of energy efficiency standards rooted in a performance-based approach. This approach establishes a set of metrics that must be demonstrated through energy modelling and airtightness testing to prove compliance. Various metrics define the Steps of the ESC, progressing from enhanced base code compliance at

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Step 1 to zero-energy ready at the highest step. Different building types have different numbers of steps. The steps are categorized into Lower and Upper Steps according to building types.

Three key aspects of the ESC that distinguish it from traditional BC Building Code energy requirements are as follows:

1. *Performance-based*, offering builders design flexibility, as opposed to a lengthy suite of prescriptive technical requirements for individual building components;
2. *Envelope-focused*, recognizing the need to help ensure that the building envelope (e.g. walls, foundation, ventilation), which is unlikely to change or be upgraded over the building's life, is designed and constructed efficiently from the beginning; and
3. *Explicit about airtightness*, the lowest cost way to improve building performance, but an area where buildings in BC lag behind the rest of the country.

The Zero Carbon Step Code (ZCSC) is a performance-based building standard designed to reduce greenhouse gas (GHG) emissions from new buildings. It builds on the BC Energy Step Code by adding requirements specifically aimed at minimizing carbon emissions from building operations, particularly from heating, cooling, and hot water systems.

Under the Zero Carbon Step Code, buildings are required to meet progressively stringent energy efficiency and carbon reduction targets, with the ultimate goal of achieving "zero carbon-ready" buildings that operate with minimal or no carbon emissions. The standard encourages the use of low-carbon energy sources, improved building envelope performance, and the reduction or elimination of on-site fossil fuel use.

Municipalities in British Columbia can voluntarily adopt the Zero Carbon Step Code at different levels, or "steps," to align with their local climate action goals and timelines. The code is a key tool in the province's strategy to combat climate change and transition to a low-carbon economy.

Approach and Intent
Local governments have the opportunity to encourage or incentivize more energy efficient, low carbon buildings under the ESC and ZCSC framework in advance of Provincial regulation. The City's Building Bylaw outlines steps for future construction and is summarised in the tables below.

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Energy Step Code and Zero Carbon Step Code Requirements for New Buildings

Part 9 Buildings (Residential)	January 1, 2024	January 1, 2025	January 1, 2027	January 1, 2030 (Provincial timeline)
Single- or two-family dwellings	Step 4 No carbon requirements	Step 4 EL-4 Zero Carbon Ready	Step 5 EL-4 Zero Carbon Ready	Step 5 EL-4 Zero Carbon Ready
Laneway and carriage Dwellings				
Townhomes and apartment buildings up to 3 storeys				

Notes

Building permits received on or after the dates noted above are subject to the new requirements.

EL-4 Zero Carbon Ready = Space, water and cooking must be zero carbon.

Energy Step Code and Zero Carbon Step Code requirements as per BC Building Code, Article 9.36.6 and 9.37.1.3 of Division B (as amended from time to time).

Part 3 Buildings	January 1, 2024	January 1, 2025	January 1, 2027	January 1, 2030 (Provincial timeline)
Group C: Residential Occupancies, six stories or less	Step 3 or Step 2 with LCES (EL-2)	Step 3 EL-4 Zero Carbon Ready	Step 4 EL-4 Zero Carbon Ready	Step 4 EL-4 Zero Carbon Ready
Group C: Residential Occupancies, six stories or more				
Group C: Hotels and Motels	Step 2			
Group D Offices (Businesses and Personal Services)	Step 2	Step 2 EL-4 Zero Carbon Ready	Step 3 EL-4 Zero Carbon Ready	Step 3 EL-4 Zero Carbon Ready
Other Group D and E (Mercantile) occupancies	Step 2			

Notes

In-stream rezoning applications that have progressed to 1st Reading by December 31, 2024, would not be subject to the new requirements. These projects would proceed through the development approval and building permit process according to the current requirements for building energy efficiency and carbon performance.

LCES = Low Carbon Energy System - equivalent to Emission Level (EL-2) of the Zero Carbon Step Code.

Energy Step Code and Zero Carbon Step Code requirements as per BC Building Code, Subsection 10.2 and 10.3 of Division B (as amended from time to time)

Building Types and Occupancies not included in the above table are required to comply with the BC Building Code requirements for energy efficiency and carbon performance.

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Procedures

The following procedures will be followed for Part 9 and Part 3 building archetypes with defined metrics according to the Energy Step Code and Zero Carbon Step Code framework:

1. During the preliminary review of a rezoning application, staff will direct the applicant to review the Corporate Policy and ensure that the applicant is aware of potential rezoning application paths pertaining to the project building classification.
2. The applicant will be strongly encouraged to conduct energy modelling and progress through the rezoning application process with the intent of achieving procedures outlined above.
3. Along with the detailed rezoning application submission, the applicant may be requested to voluntarily offer to provide a written statement, for example through a development agreement or section 219 covenant in favour of the City that their proposed design is able to meet the chosen application path stated above and projects that comply with this Corporate Policy will be accompanied with a staff report to Council as part of its consideration of such application detailing the applicant's commitment to this Corporate Policy.
4. If the application is approved by Council in reliance on the commitments that may voluntarily be made as referred to in this Policy, applicants must submit Letters of Assurance as part of Building Permit application, and prior to occupancy, assuring that the project substantially complies with the City's Energy Step Code and Zero Carbon Step Code requirements, as applicable.

Associated Regulations and Policy Documents
This Policy is to be applied in conjunction with:

*   City of Port Moody Zoning Bylaw;
*   Energy Step Code bulletins issued by the Community Development Department;
*   Zero Carbon Step Code bulletins issued by the Community Development Department; and
*   other relevant bylaws or policies as necessary or that may be adopted by Council.

Monitoring/Authority

The review of rezoning applications under this policy is delegated to the General Manager of Community Development. Council maintains full discretion on the consideration of rezoning applications.

This Corporate Policy shall come into effect on January 1, 2025.