

## NEW ENERGY EFFICIENCY REQUIREMENTS UNDER THE BC BUILDING CODE

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The BC Energy Step Code is a provincial building standard incorporated within the BC Building Code (*BCBC*) that provides an incremental approach to achieving more energy efficient buildings that go above the base requirements of the *BCBC*<sup>7</sup>. The Energy Step Code is designed to slowly introduce and increase mandated efficiency requirements so that local authorities and the construction industry can adapt to the process in a management way. The standard was first introduced in 2017 as a voluntary, compliance-based roadmap that both local government and industry could choose to use to incentivize or require builders to meet a level of energy efficiency in new building construction. However, beginning in early 2023, all new buildings constructed in BC will be required to be 20 percent more energy efficient than those built to the requirements of the 2018 *BCBC*.

### WHAT IS THE BC ENERGY STEP CODE?

In April 2017, BC adopted the Energy Step Code as an amendment to the 2012 *BCBC* to enable it to meet the Provincial goal to transition to and construct net-zero energy

ready buildings by 2032. A “net-zero energy ready” building is one that produces as much clean energy as it consumes by being energy efficient in its makeup and, where an energy deficit exists, by using on-site or near renewable energy systems to produce the balance of energy it requires.

The regulation sets performance targets for new construction and groups them into “steps” that apply across various building types and regions in the Province. To demonstrate compliance with the Energy Step Code, a building must meet or exceed the performance requirements set out in each step. These requirements cover building envelope, airtightness, and equipment and systems.

The Energy Step Code consists of a series of five steps, representing increasing levels of energy-efficiency performance. Step 1 is often referred to as “enhanced compliance” because it simply requires builders to demonstrate that they have achieved the energy-efficiency requirements of the existing *BCBC*. This step entails modeling energy performance and measuring airtightness to ensure that a building will meet or exceed the minimum energy-efficiency code

requirements. On the other end of the spectrum, Step 5 for homes represents a net-zero energy-ready standard, which is up to 80 percent more energy efficient than a typical new building. While Steps 1 to 3 can be achieved using construction techniques and products readily understood and available in today's construction market, homes built to Steps 4 and 5 are more ambitious and will necessitate additional training for building industry professionals to understand and incorporate the new techniques and materials required by the substantial changes in building design, layout, framing techniques, system selection.

## APPLICATION OF THE BC ENERGY STEP CODE TO BUILDINGS UNDER THE BCBC

The Energy Step Code applies to two types of buildings, known as "Part 9" and "Part 3" buildings. These are separately regulated under the BCBC and defined as follows:

- Part 9 Residential Buildings: buildings 3 storeys and under with a footprint of 600 square metres or less (e.g. houses and duplexes). This term describes the majority of smaller structures such as single-family dwellings, duplexes, small apartment buildings, and most townhouses; and
- Part 3 Residential Buildings: buildings above 4 storeys or with a footprint of 600 square metres or over (e.g. apartments and large office buildings). This term describes the majority of larger commercial, office and residential structures such as apartment buildings, condos, shopping malls, office buildings, hospitals, care facilities and schools.

For Part 3 Buildings, higher steps are defined as Steps 3 and 4 (with Step 4 being the highest) while for Part 9 Buildings, higher steps are defined as Steps 4 and 5 (with Step 5 being the highest).

## WHAT ARE THE NEW ENERGY EFFICIENCY REQUIREMENTS AND WHEN WILL THEY COME INTO EFFECT?

On September 23, 2022, the Province initiated a public review of the proposed changes to the BCBC which, if adopted, will be accomplished through a separate Ministerial Order soon to be introduced in the Legislative Assembly. The most substantive of the proposed changes that will apply to all new or substantially reconstructed buildings in BC are as follows:

- buildings within the scope of Part 9 of the BCBC will be required to be designed in accordance with Step 3 of the Energy Step Code. These requirements will produce a prescriptive compliance path that is stated to meet or exceed Step 3 of the BC Energy Step Code; and

Part 3 buildings (for residential, office or commercial use) submitted for a building permit will be required to be designed to Step 2 of the Energy Step Code. Unlike for Part 9 buildings, there are no equivalent prescriptive requirements for Part 3 buildings.

In addition to the above amendments, there are some proposed technical changes from the existing Energy Step Code requirements which include more airtightness testing options, the introduction of National Building Code provisions, and new energy performance improvement compliance calculations.

## COMPLIANCE TOOLS FOR IMPLEMENTATION

The Energy Step Code is available for local governments to reference in bylaws, policies and programs. Communities that issue more than three quarters of all residential buildings permits in the Province have now either referenced the Energy Step Code in building bylaws or are in consultations to engage with the building and development sectors to do so. A broad spectrum of tools exists to assist local governments and the construction industry in preparing for and implementing the upcoming changes. These compliance tools include the following:

- step code guides available at [energystepcode.ca](https://energystepcode.ca), including the [Local Government Best Practices Guide](#), [the Building Officials' Handbook](#), [the Provincial Policy Guide for Local Governments](#) and the [Building a Legacy Toolkit](#);
- [Code compliance tools for Part 9 Buildings](#);
- a series of [PowerPoint presentations](#) outlining the requirements for Part 3 buildings and Part 9 buildings;
- BC Housing's [Illustrated Guide to Achieving Airtight Buildings](#) and [BC Energy Step Code Design Guide](#);
- consultations with energy advisors, which are third-party consultants available to coach and mentor builders on how to improve energy performance and

demonstrate compliance under the Energy Step Code for Part 9 Buildings<sup>2</sup>; and

- successful implementation examples by local governments to adopt the standard, available at <https://energystepcode.ca/implementation/updates/>.

In 2027, the requirements will increase again and the Province will require Part 3 buildings to meet Step 3 standards and Part 9 buildings to meet Step 4 standards, with new construction developments expected to be 40 percent more efficient. And in 2032, the Province will further require builders to meet the energy-efficiency standard of the highest step (i.e. Step 5 for Part 9 buildings and Step 4 for Part 3 buildings), with new buildings expected to be 80 percent more efficient. With higher-energy performance requirements just around the corner, local governments and industry professionals who plan ahead and take advantage of the above resources will be well-positioned to meet the more stringent energy efficiency requirements.

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1. Not applicable to City of Vancouver (unless incorporated into its building bylaw), First Nations or Federal lands.
2. Note that for Part 3 buildings, modelling and airtightness testing is done by building envelope consultants and building scientists.



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Eugenia is an associate lawyer of the firm and maintains a general municipal law practice. She has assisted local governments in relation to a wide variety of real estate development and land use planning and regulation matters, including subdivision approval processes, rezoning, development permit issues, building permit issues, and latecomer agreements. Eugenia routinely negotiates and drafts complex legal agreements for large multi-use commercial development projects. She also regularly provides advice to municipalities and regional districts on jurisdictional matters and processes for consultation and public hearings, specifically issues related to escheated property, bylaw enforcement, governance, and elections. Eugenia obtained her Juris Doctor from the Peter A. Allard School of Law at the University of British Columbia and

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*Our lawyers combine legal experience in local government, commercial real estate development, and construction law to provide legal services to local governments, owners, builders and developers on a range of projects, from concept to completion, and beyond.*

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