



**Building to the Energy Step Code:  
Part 3 Buildings**

**No.: BUILDING-40  
Date: 2018-11-14**

**Purpose:**

To inform owners, applicants, designers and builders of new Part 3 buildings requirements relating to the BC Energy Step Code.

**Background:**

On July 16, 2018, Richmond City Council adopted requirements that new buildings be designed and constructed to the BC Energy Step Code.

**2.1 About the BC Energy Step Code**

The BC Energy Step Code is a compliance path in the BC Building Code that local governments may require for new development. The BC Energy Step Code requires energy efficiency in new construction that goes beyond the minimum prescriptive requirements in the BC Building Code. The Energy Step Code is a performance-based standard; it requires new buildings to attain high-level energy and airtightness performance targets, rather than setting out detailed specifications for construction details. Energy software modelling and on-site testing is used to demonstrate that both the building design and the constructed building meet the requirements of the standard.

The BC Energy Step Code is organized into a series of progressively more stringent Steps. Over time, the City plans to incrementally shift building requirements to up to the highest levels of the Energy Step Code (see sections 3.1 and 3.2 below). The province is also expected to increase the stringency of base BC Building Code requirements over time so that all new construction is required to achieve a “net-zero energy ready” performance level by 2032.

More information about the BC Energy Step Code is available at: <https://energystepcode.ca/>.

**Requirements:**

**2.1 Current Requirements**

The table below outlines Richmond’s BC Energy Step Code requirements for Part 3 buildings.

Building Type	Building permit application filed on or after September 1, 2018
Group C: <b>Residential – greater than 6 stories or non-combustible construction</b> (not including hotels and motels)	<b>Step 3</b> <i>OR</i> <b>Step 2 with a low carbon building energy system</b> (see below)
Group C: <b>Residential – 6 stories or less with combustible construction</b> (not including hotels and motels)	<b>Step 3</b>
Group D: <b>Businesses and personal services</b> Group E: <b>Mercantile occupancies</b>	<b>Step 2</b>

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## 2.2 Low Carbon Building Energy Systems

As noted in the table above, for Part 3 buildings with Group C residential occupancies and non-combustible construction, projects may be constructed to Step 2 if they implement a “low carbon building energy system”. A “low carbon building energy system” means a building’s space heating, cooling and domestic hot water heating mechanical system that is supplied energy through either:

- A connection to a City owned district energy utility system; or
- On-site energy supply equipment designed to meet a minimum 70% of the building’s annual heating, cooling and domestic hot water energy demand from a renewable energy source, as approved by the City’s Director of Engineering. Applicable renewable energy source technologies include, but are not limited to, air and ground source heat pump systems, waste heat recovery systems, solar collectors, or other systems as approved by the City’s Director of Engineering. The building’s energy system must be designed and constructed such that it is ready to connect to a future City owned district energy utility system.

## 2.3 Effective Date

These requirements apply to new construction that has not been issued a building permit by September 1, 2018 (the “effective date”).

The effective date is delayed for some “in-stream” developments with active development permit applications. For “Part 3” developments and “Part 9” townhouse and apartment developments:

- If a Development Permit has been issued prior to September 1, 2018, the owner may, while their Development Permit remains valid, apply for a Building Permit in compliance with the energy efficiency requirements applicable prior to the adoption of Bylaw 9769; or
- If an acceptable Development Permit application has been submitted to the City prior July 16, 2018, the owner may, until December 31, 2019, apply for a Building Permit in compliance with the energy efficiency requirements applicable prior to the adoption of Bylaw 9769.

## 2.4 Potential Future Requirements

Richmond’s Official Community Plan features the following table, including an estimated timetable for future consideration of higher Steps of the BC Energy Step Code as requirements in Richmond. Builders, developers and designers are encouraged to consider these potential future requirements.

Building Type	Current Requirement	Timetable for Future Consideration	
		January 2022	January 2025
Residential Concrete Towers	<p><b>Step 3</b></p> <p>OR</p> <p><b>Step 2 with a low carbon building energy system</b></p>	<b>Step 3</b>	<b>Step 4</b>
Residential Low/Mid-Rise	<b>Step 3</b>	<b>Step 4</b>	<b>Step 4</b>
Office & Retail Buildings	<b>Step 2</b>	<b>Step 3</b>	<b>Step 3</b>

## Implementation

### 3.1 Rezoning Application and Development Approvals

As part of both Rezoning and Development Permit applications, applicants are expected to conduct energy modelling and provide a statement to the City that their proposed design is able to meet the requirements of BC Energy Step Code that will be in place at the time of their Building Permit application. This statement must be submitted prior to City Council considering the projects’ rezoning, and again prior to consideration of the project by Development Permit Panel.

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### **3.2 Building Approvals**

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 BC Energy Step Code requirements.

It is expected that the province's Building and Safety Standards Branch will publish a checklist tool to allow applicants to demonstrate compliance to the BC Energy Step Code at Building Permit application, and again prior to occupancy. The City anticipates requiring submission of this checklist, once available.

Prior to occupancy, the applicant must:

- Create an Energy Star Portfolio Manager profile of the building(s) (see [www.bchydro.com/powersmart/business/resources/energy-efficiency-benchmarking.html](http://www.bchydro.com/powersmart/business/resources/energy-efficiency-benchmarking.html)). To support implementation of future benchmarking reporting requirements, applicants may share the property profile with the City of Richmond as a "Read Only" permission level.

### **City Contact**

Should you have any questions or comments concerning this bulletin, please contact the City of Richmond's Sustainability Department via the main City phone line 604-276-4000.

For a complete copy of *Building Regulation Bylaw No. 7230*, please visit the City of Richmond website at [www.richmond.ca/cityhall/bylaws](http://www.richmond.ca/cityhall/bylaws).