

REPORT

Climate Action, Planning and Development

To: Mayor Johnstone and Members of Council
Date: April 3, 2023

From: Jackie Teed
Acting Director of Climate Action,
Planning and Development
File: 05.1020.20

Item #: 2023-221

Subject: **Building Amendment Bylaw No. 8388, 2023: BC Energy Step Code Alignment – Bylaw for Three Readings**

RECOMMENDATION

THAT Council give First, Second and Third Reading to Building Amendment Bylaw No. 8388, 2023

PURPOSE

To amend Building Bylaw No.8125, 2019 to align with changes to the BC Building Code.

SUMMARY

The BC Building Code has recently been revised to include increased energy efficiency requirements in the BC Energy Step Code and to include a Zero Carbon Step Code. In order to align with the code changes, the proposed amendments to Building Bylaw include:

- 1) Increasing the Energy Step Code requirements for laneway and carriage houses from Step 2 to Step 3; and
- 2) Removing the two-option framework that allows Part 3 buildings (multi-unit residential over three storeys, and most office and commercial buildings) to be constructed to Step 2 of the Energy Step Code with a low carbon energy system.

Building Amendment Bylaw No. 8388 detailing the proposed changes is included as Attachment 1.

BACKGROUND

The BC Energy Step Code was introduced in 2017 as an opt-in better than base code energy efficiency standard for new buildings. Local Governments can choose to adopt levels of the Step Code into their Building Bylaw, in advance of the Provincial timeline. The Province has indicated they will incrementally increase the required Step over time until the highest levels are required in the base code by 2032. The highest Step for Part 9 (smaller residential buildings) is Step 5 and for Part 3 (multi-unit residential over three storeys, and most office and commercial buildings) is Step 4.

On February 25, 2019, Council adopted Energy Step Code requirements for new Part 9 and Part 3 buildings through amendments to the Building Bylaw. The current requirement for Part 9 buildings is Step 3 with the exception of laneway and carriage houses where the requirement is Step 2. The current requirement for Part 3 buildings is Step 3, with a two option framework for Part 3 multi-unit residential buildings which incentivizes a Low Carbon Energy System (LCES) by allowing a reduction to Step 2.

At the July 11, 2022 Council meeting, Council adopted the following motion:

That Council direct staff to proceed with work on the acceleration of the Energy Step Code for single detached dwellings in 2023 using a two option framework.

The motion supports developing a two option framework which allows a reduced Step in the Energy Step Code when building using a low carbon system. Offering the alternative option was contingent on the City defining the parameters of a LCES, which has proven challenging, and the option has not been implemented to date.

DISCUSSION

Energy Step Code Changes

The BC Building Code has recently been updated with new requirements coming into effect May 1, 2023. The updates include increased energy efficiency requirements in the BC Energy Step Code. The proposed bylaw amendment (Attachment 1) makes two changes to the City's Building Bylaw to bring it into alignment with the new Step Code requirements.

The first amendment would increase Step Code requirements for laneway and carriage houses from Step 2 to Step 3, consistent with the BCBC update. The technical considerations which were initially an issue when the City selected Step 2 as a requirement have since changed, making Step 3 feasible in laneway and carriage houses. City staff has been actively raising awareness of the upcoming increased requirements and do not anticipate any issues with in process applications.

For Part 3 buildings, the City's Building Bylaw currently includes a two-option framework that would allow Step 3 or Step 2 with a Low Carbon Energy System (LCES), once a definition has been created. The second amendment proposed to the Building Bylaw

would remove the option of building to Step 2 with a LCES, which would be consistent with the BCBC update which no longer permits local governments to develop their own definitions. Staff does not anticipate any issues with instream applications since buildings have been required to construct to Step 3 to date.

All other City requirements are meeting or exceeding the new energy efficiency code requirements.

The following table summarizes the proposed changes:

Part 9 Residential	January 1, 2020	May 1, 2023
Single or Two Family Dwellings	Step 3	Step 3
Laneway and Carriage Dwellings	Step 2	Step 3
Townhomes and Apartment Buildings up to three floors	Step 3	Step 3
Part 3 Multi-Family Residential	Step 3 [or] Step 2 with approved <i>Low Carbon Energy System</i>	Step 3

Zero Carbon Step Code

The BC Building Code has also been updated to include a new opt-in Zero Carbon Step Code. The Zero Carbon Step Code, also referred to as the Carbon Pollution Standard, establishes permissible levels for greenhouse gas emissions (i.e. a carbon level) associated with the use of energy utilities consumed by the building’s systems. The Province has indicated the intent to require increasing levels of the Zero Carbon Step Code (i.e. decreasing levels of greenhouse gas emissions) in future Building Code updates to meet the CleanBC target of Zero Carbon new buildings by 2030.

At this time, the Zero Carbon Step Code is intended to be a way for local governments to advance electrification in their communities. Similar to the Energy Step Code, a local government can choose to adopt a carbon level into their Building Bylaw, through the Zero Carbon Step Code. The Zero Carbon Step Code establishes four levels of

emissions which includes, measure only (EL-1), moderate carbon (EL-2), low carbon (EL-3) and zero carbon (EL-4) (see Attachment 2). The addition of the Zero Carbon Step Code in the Building Code provides a clear definition and compliance pathway for Low Carbon Energy Systems.

The Province is currently developing implementation guidelines and compliance documents to support early adoption of the Zero Carbon Step Code. A future report will be brought to Council, when such additional information has been developed, to explore how this system could be used to implement Council’s previous direction to allow a two-option framework for single detached dwellings. Additional changes may also be brought forward for Council’s consideration at that time.

NEXT STEPS

The upcoming changes to the BC Building Code have already been communicated to applicants. The City will also continue to support industry training and capacity building related to the new Zero Carbon Step Code and high performance building through Energy Save New West.

In addition, staff will develop a proposed longer term strategy and timeline to advance the BC Energy Step Code and the Zero Carbon Energy Step Code to align with or exceed the Provincial timeline to reach the highest steps, which will be presented to Council in a future report.

SUSTAINABILITY IMPLICATIONS

The proposed amendments to the Building Bylaw are supported by the Community Energy and Emissions Plan (CEEP 2050) and implementation of the City’s bold Step #3 Carbon Free Homes and Buildings.

FINANCIAL IMPLICATIONS

There are no financial implications at this time. Staff resources are required to implement the changes to the Building Bylaw.

OPTIONS

The following options are provided for council’s consideration:

1. That Council give First, Second and Third Reading to Building Amendment Bylaw No. 8388, 2023
2. That Council provide staff with alternative direction.

Staff recommend Option 1.

ATTACHMENTS

Attachment 1: Building Amendment Bylaw No.8388, 2023

Attachment 2: Zero Carbon Step Code

APPROVALS

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