

The purpose of this bulletin is to inform staff, building contractors and the general public of the Energy Efficiency requirements found in the District of Lake Country's Building Regulation Bylaw.

BC Energy Step Code Adopted in the District of Lake Country

After an extensive process of public stakeholder engagement and industry consultation, the District of Lake Country has adopted the BC Energy Step Code. Effective April 1, 2019 compliance with the BC Energy Step Code is required for all new building permit applications for residential buildings.

As of October 1, 2020, Step 3 is required for all new residential building permit applications (Part 9 of the BC Building Code) (Except Accessory Suites which must meet Step 2). Builders can voluntarily choose to build a higher step, with steps 4 and 5 being eligible for a rebate as outlined in the District of Lake Country's Fees Bylaw.

Step Code is not required for other (non-residential) building types at this time.

The BC Energy Step Code is a new provincial standard that provides an incremental and consistent approach to achieve energy efficient construction. The BC Energy Step Code requires buildings to demonstrate energy efficiency code compliance through:

1. Building energy modeling;
2. Airtightness testing.

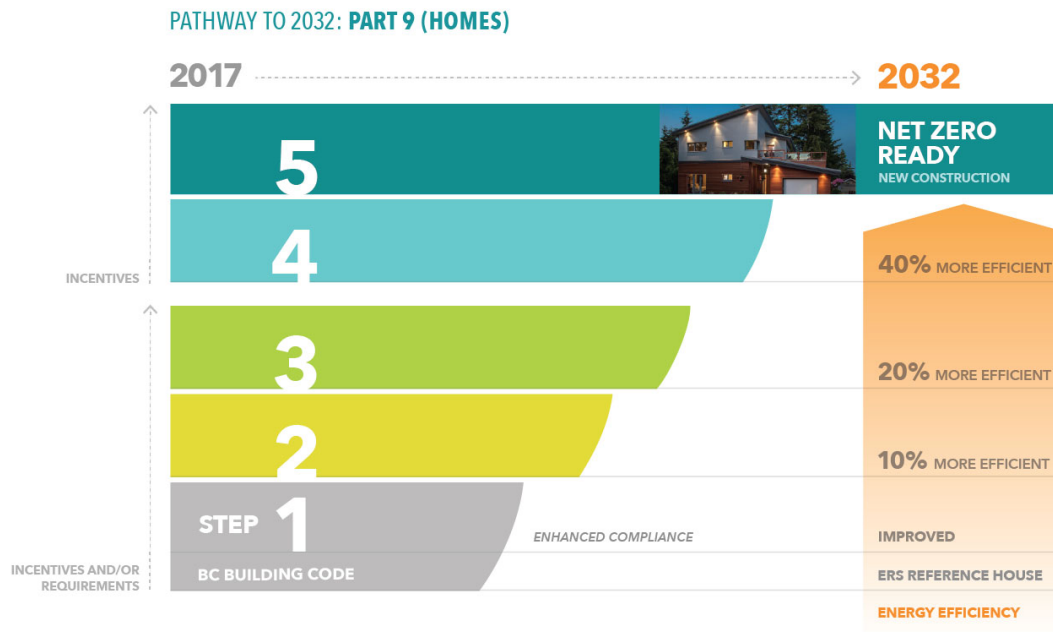
This means builders will be required to work with a qualified energy consultant (an Energy Advisor or Energy Modeler). Projects that use the BC Energy Step Code must demonstrate compliance with a number of performance targets.

Currently, the District of Lake Country Building Bylaw states there are two possible performance pathways that can be followed – **BC Building Code Subsection 9.36.5** or **Subsection 9.36.6 (Energy Step Code)**. Both involve the services of an **Energy Advisor (EA)** or **Energy Modeler** to review plans, model energy consumption, conduct air tightness testing and to verify the plans and as-built home construction for compliance with the energy performance requirements of a given step of the BC Energy Step Code.

While 9.36.5 was introduced in the 2014 BCBC as an option for satisfying the energy efficiency requirements of the components and systems using computer modelling (a blower door test is optional as per BCBC 9.36.5.10.(9), the Energy Step Code (9.36.6) was brought in by the Province in April 2017 as a means of transitioning the market from the current energy-efficiency requirements in the BC Building Code to the Provincial requirement for net-zero energy ready buildings by 2032. Each of the five 'Steps' associate with the Energy Step Code represent a progressive improvement over the base-BCBC (see Figure below).

EA's conduct performance evaluations on behalf of a Natural Resources Canada (NRCan) licensed service organization and are licensed to deliver NRCan's EnerGuide Rating System (ERS), ENERGY STAR for New Homes and R-2000 programs.

Energy modelers, on the other hand, do similar work but may not be affiliated with a Service organization. All EA's are Energy Modelers, but not all Energy Modelers are EA's.



Like 9.36.5, the requirements set out in Step 1 only need to satisfy the performance of the base BCBC. By comparison, Steps 2 to 4 represent an improvement of 10%, 20% and 40%, respectively, above the base-BCBC. The final step - Step 5 - establishes the net zero energy ready target (roughly an 80% improvement in energy efficiency over the base-BCBC).

Mid-Construction Blower Door Test Recommendation

All 'Steps' within 9.36.6 require at least one blower door test at project completion, though a mid-construction (pre-drywall) blower door test is recommended to facilitate the correction of air barrier deficiencies when it is still easy to reach and fix them.

Non-compliance with Energy Step Code requirements:

If a building does not meet the BC Energy Step Code requirements after the post-construction blower door test, a Building Official may issue an inspection notice for occupancy if the following conditions are met:

- The applicant demonstrates that all reasonable measures were taken to improve the energy performance of the building after the initial post-construction blower door test.
- Another post-construction blower door test is conducted by a Licensed Energy Advisor.
- The applicant submits a revised BC Energy Compliance Report – Performance Paths for Part 9 Buildings: As-Built form completed by the Licensed Energy Advisor or Registered Professional, indicating the updated post-construction blower door test results and verification of all building energy efficiency upgrades.
- The building constructed must demonstrate compliance with an alternative energy efficiency performance or prescriptive requirement set out in the BC Building Code for Part 9 construction.

Required Documentation**AT TIME OF BUILDING PERMIT APPLICATION**

9.36.5 Compliance (Registered Professional Required)	<input type="checkbox"/>	Drawing(s) include a statement indicating that 'performance pathway' pursued (include note to see attached Pre-Built Compliance Report for building characteristics summary)
	<input type="checkbox"/>	District of Lake Country Compliance Report (Pre-Built) completed by a Registered Professional who is a Qualified Modeler (QM) or overseeing a QM is the role of Energy Modelling Supervisor. Registered Professional must include Confirmation of Professional Liability Insurance Form and a copy of their Professional Liability Insurance.
	<input type="checkbox"/>	Energy model summary for the reference house AND pre-build (aka 'as-designed') house

9.36.6 Compliance (District's Preferred Path)	<input type="checkbox"/>	Drawing(s) include a statement indicating the Step pursued
	<input type="checkbox"/>	District of Lake Country Compliance Report (Pre-Built) completed by a Licensed Energy Advisor.
	<input type="checkbox"/>	Energy model summary for the reference house AND pre-build (aka 'as-designed') house

PRIOR TO ISSUANCE OF OCCUPANCY PERMIT

9.36.5 Compliance (Registered Professional Required)	<input type="checkbox"/>	District of Lake Country Compliance Report (As-Built) completed by the Registered Professional acting as the QM.
	<input type="checkbox"/>	Energy model summary for the reference house AND as-built house attached

9.36.6 Compliance (District's Preferred Path)	<input type="checkbox"/>	District of Lake Country Compliance Report (As-Built) Attached completed by a Licensed Energy Advisor.
	<input type="checkbox"/>	Energy model summary for the reference house AND as-built house attached

The specific performance targets associated with each step are outlined in BC Building Code section 9.36. at www.bccodes.ca

For more information:

Please contact the Building Division at 250-766-6675.

Please note: Bulletins are prepared to provide convenient information for customers and should not be considered a replacement for reviewing the bylaw or associated legal documents. If there is any contradiction between this guide and relevant municipal bylaws and/or applicable codes, please refer to the bylaws and/or codes for legal authority.