

# Bulletin: Step Code Implementation

## Part 9 Residential Buildings

**Bulletin:** BD-20-01  
**Created:** Dec 10, 2020  
**Updated:**

*This bulletin is for information only, please refer to the RDCK Bylaws or consult with the Building Department if you require further information on building Bylaw.*

Questions directly on Step Code can be sent to [builderinfo@rdck.bc.ca](mailto:builderinfo@rdck.bc.ca)

### Update

On November 19<sup>th</sup> 2020, the Regional District of Central Kootenay (RDCK) Board discussed and adopted the Regional District’s bylaw update to adopt Step 1 of the BC Energy Step Code. Visit [energystepcode.ca](http://energystepcode.ca) for more information about the BC Energy Step Code.

For permits received after **December 31<sup>st</sup> 2020**, new Part 9 residential buildings will need to demonstrate "enhanced compliance" with Step 1 of the Step Code.

Step 1 is a no-fail option which uses a third party energy assessment to measure and report the air-tightness and energy performance of new residential buildings. Buildings can also voluntarily be built to a higher step (2 – 5). Step 5 is *net zero ready*, meaning the building will be highly efficient and ready to integrate onsite generation to produce as much energy as it uses. You can find out more about rebates for each step on page 4.

This decision was not taken lightly and extensive work was carried out in the lead up to this adoption, including engagement with registered builders, trades, Energy Advisors, local government peers and an assessment of housing within the RDCK.

### What is the Step Code?

The Step Code is a new provincial standard that provides an incremental and consistent approach to energy efficient construction. Each step on the BC Energy Step Code means a more efficient building, with the final step being net-zero (i.e. the building creates as much energy as it consumes).

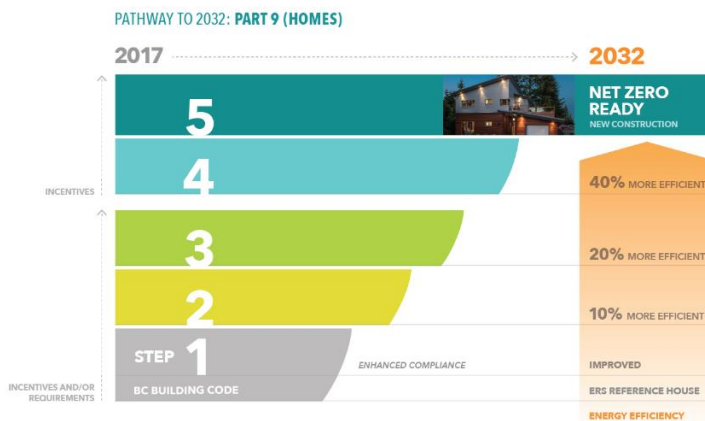


Figure 1 – Energy Step Code Part 9 Pathway

## How is Step Code Measured?

The BC Energy Step Code is performance based, meaning that it requires a certain level of energy efficiency rather than dictating design/construction requirements. It considers the building envelope (walls and windows), equipment efficiency, and airtightness.

Building energy efficiency is measured by Natural Resources Canada (NRCan) registered professionals called Energy Advisors (EAs) using the following:

- **Energy modelling:** model energy consumption based on building plans and appliances; and,
- **Air tightness testing during and post-construction:** measure how easy it is for air to leak through a building's exterior to ensure the building's actual performance meets the design specifications.

*All 'Steps' within 9.36.6 require at least one blower door test at project completion. A mid-construction (pre-drywall) blower door test is recommended to facilitate the correction of air barrier deficiencies before final construction.*

## Energy Advisors

There are lots of ways to learn more about Energy Advisors or find one to work with in your area including:

- [BC Energy Step Code website](#)
- [Better Homes BC Search Tool](#)
- [Natural Resources Canada Service Organization database](#)
- [Canadian Association of Consulting Energy Advisors \(CACEA\) Energy Advisor database](#)
- There is also a map of the local energy advisors included in your Building Permit information pack

## Why High Performance Building?

### Benefits to Homeowners

- **Building testing**—buildings are tested to ensure they meet energy efficiency targets.
- **Lower energy bills**—lower energy consumption and better insulation reduces heating/cooling costs for the whole life of your home
- **Quality assurance**—through assessing your new home's performance in addition to the typical safety assessments, home owners are assured of the construction and performance of their home.
- **Greater comfort**—reduced drafts and temperature variations due to high airtightness make your home feel more comfortable in cold and warm temperatures.
- **Increased resale value**—buyers are increasingly demanding high efficiency homes.
- **Reduced noise**—increased insulation levels and better windows can reduce noise levels.
- **Healthier living**—better air quality, including mechanical ventilation helps provide a healthier indoor environment.

### Trade-offs

- **Building costs:** construction costs may increase to meet the higher steps; however, lower operating costs and incentive programs will help to offset these costs.

## Building Permit Application Documents

In addition to the typical building document requirements, the following documents are required as part of all new building permit applications for Step Code Part 9 Buildings (residential buildings):

### Building Permit Application

- BC Energy Compliance Report – Pre-construction form** completed by a Certified Energy Advisor licensed by Natural Resources Canada.
- Plan drawings** showing all the energy efficiency upgrades and energy statements indicating compliance with the BC Energy Step Code
- Air barrier details** shall be shown on the drawings (in red).
- Printout or electronic version of the complete **pre construction HOT2000 Model Full Report**

### Occupancy Permit Application

- BC Energy Compliance Report - As-Built form** indicating Step Code level achieved (minimum Step 1)
- Post-construction blower door test** conducted by Certified Energy Advisor
- Energy rating** posted and displayed within the property (typically in the mechanical room)
- Email confirmation** from the Service Organization acknowledging receipt of the N file corresponding to the Hot2000 Model Full Report

### On Final Inspection

- Final **EnergGuide Label** provided by NRCAN to be displayed on the property (typically in the mechanical room)

## Construction Process

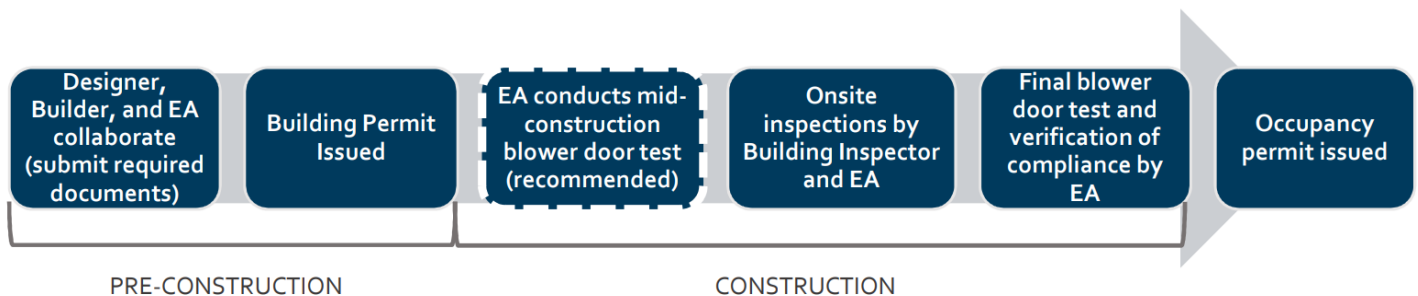


Figure 2 – Step Code Process - diagram created by City of Kelowna

## Rebates and Incentive Programs

To help support the transition to high performance homes and the BC Step Code, FortisBC and BC Hydro (via the RDCK) are offering construction rebates for achieving varying levels of Step Code. More information can be seen on our website, [rdck.ca/reep](http://rdck.ca/reep) and a full list of the available rebates can be seen here: <https://betterhomesbc.ca/> If you would like to speak to someone, you can contact an Energy Coach on [1-844-881-9790](tel:1-844-881-9790)

<b>FortisBC &amp; Nelson Hydro Electricity Regions:</b> Apply directly through FortisBC Available for buildings completed before December 31, 2021		<b>BC Hydro Electricity &amp; Non-Grid Regions:</b> Apply through CleanBC for Step 3, 4 & 5 Available for permits submitted before December 31, 2021	
<b>Step 1</b>	<b>\$500</b> *For builders first project with an EA - apply through a <a href="#">Energy Solutions Mgr</a> or FortisBC rep	<b>Step 1</b>	<b>\$500</b> *Apply directly through RDCK
<b>Step 2</b>	<b>\$3,000</b>	<b>Step 2</b>	<b>\$3,000</b> *Apply directly through RDCK
<b>Step 3</b>	<b>\$4,000</b>	<b>Step 3</b>	<b>\$4,000</b>
<b>Step 4</b>	<b>\$6,000</b>	<b>Step 4</b>	<b>\$6,000</b>
<b>Step 5</b>	<b>\$10,000</b>	<b>Step 5</b>	<b>\$10,000</b>
<b>Energy Advisor Support Rebate – All Steps</b> \$500 per individually modelled home or unit (\$400 to the builder / \$100 to the Energy Advisor)		<b>Energy Advisor Support Rebate – Steps 3 – 5 or with electric heat pump</b> \$1,000 per individually modelled home or unit (\$800 to the builder / \$200 to the Energy Advisor)	

## Training Opportunities

BC Energy Step Code training opportunities are listed on the [BC Step Code Events Calendar](#) and local events will be advertised on Bulletins and on our website at [rdck.ca/reep](http://rdck.ca/reep).

If you would like to receive this Bulletins and info directly to your inbox, let us know via [builderinfo@rdck.bc.ca](mailto:builderinfo@rdck.bc.ca)