

How does it work?

Traditionally, most builders utilize the *prescriptive approach* to demonstrate code compliance. This approach regulates individual elements (insulation, windows, furnaces, water heaters, lighting and other equipment and systems) rather than ensuring that the building functions well as a system.

To comply with the BC Energy Step Code, builders must now take a *performance-based approach* to code compliance. This means meeting three key performance metrics measuring energy demand, energy use and airtightness. This performance-based approach means that the design team, including an Energy Advisor, must 1) develop a building design that meet these three metrics, and 2) upon final inspection, prove that the building has achieved the performance requirements, through testing and confirmation by the Energy Advisor.

Performance design requires more attention to detail at each phase of the project, to avoid delays in not only the issuance of permits, but in the review of revisions as corrective measures throughout the construction phase. Attention to detail in the construction phase of a project will increase the likelihood of an Occupancy Certificate being issued at project completion.

Steps 1 to 5 are based on common green-building programs (Energy Star, Built Green and R-2000). This means that the designs and approaches builders may have used to meet these standards should convert easily to the Step Code.

What is the role of an Energy Advisor?

Energy Advisors (EA) are a required part of the design and construction team under the Step Code. It is important that you engage your EA at the design stage to ensure that energy efficiency informs your decisions about cost-effective design, materials and equipment.

Energy Advisors apply their expertise, in combination with energy modelling software, to ensure your design will meet your targeted step. The advisor is also responsible for on-site testing during and following construction to demonstrate that the building performs according to the model.

To find out more about reports and forms required for building permit applications submitted after July 1, 2018, visit westvancouver.ca/buildingpermit.

West Vancouver minimum Step requirements	
New Single Family Dwellings	Step 3 of 5
Coach Houses	Step 1 of 5
Part 3 Buildings	Step 2 of 4
Renovations & Additions	Need not comply with Step Code; typical BCBC prescriptive requirements apply

For more information:

BC Energy Step Code
energystepcode.ca

Building Smart training
bchousing.org/research-centre/building-smart

Energy Advisors
energystepcode.ca/energy-advisors

Passive House Canada
passivehousecanada.com

BC Hydro
bchydro.com/powersmart

FortisBC
fortisbc.com/rebates

District of West Vancouver Permits & Inspections
604-925-7040 | westvancouver.ca/stepcode

¹ Energy Advisors must be licenced under Natural Resources Canada (NRCAN) training requirements and be affiliated with a service organization.

² Single Family buildings exceeding 600m² or 3 storeys fall under Part 3 of the BCBC. Specific regulations apply to these homes.

³ Applications will require a specific Passive House (PH) submission package which must include a design stage assurance letter provided by a PH Institute Accredited Building Certifier confirming that the detailed design meets PH requirements.

⁴ BC Hydro Offer—specific to West Vancouver and available only to the first fifty qualifying permit applications received.

⁵ FortisBC Offer—rebate includes FortisBC EA offer and is subject to change at the provider's sole discretion and without notice. Other conditions and restrictions may apply.

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ENERGY STEP CODE

BUILDING BEYOND THE STANDARD
NEW HOME CONSTRUCTION

westvancouver

The BC Energy Step Code has been adopted in the District of West Vancouver and will come into effect July 1, 2018. The Step Code does not apply to renovations and additions, however, all new homes must meet the minimum requirements, including the use of an Energy Advisor (EA)¹. Incentive, procedural and bylaw provisions apply to higher steps as indicated on this page.

This guide is intended for applicants of new single-family homes in the District of West Vancouver². Larger and more complex structures, such as many multi-family buildings, are required to meet a different standard.

What is the Energy Step Code?

The BC Energy Step Code was adopted by the Province in 2017 to create healthier, more energy efficient, and more comfortable buildings. It establishes a single set of measurable performance-based energy-efficiency requirements that apply across British Columbia. Moving forward, it is the goal of the Province that all new buildings be constructed as net-zero energy-ready by 2032.



REGULATIONS AND INCENTIVES BY STEP: NEW SINGLE FAMILY DWELLINGS

Passive House Canada³

Increase performance by up to 90%. Zoning provisions accommodate thicker walls and roofs required for insulation. Incentives at this step include:

- expedited permit processing
- a 10% reduction in building permit fees
- an 8% maximum floor area and site coverage increase calculated as follows:
FAR Example: $10,000\text{ft}^2$ (lot area) \times 0.35 = $3,500\text{ft}^2$ (allowable FAR)
 $3,500\text{ft}^2$ (allowable FAR) \times 1.08 = $3,780\text{ft}^2$ (FAR including incentive)
- an increased roof ridge height of 300mm (12")
- a reduced front/side/rear yard setback of 300mm (12")
- \$400 BC Hydro rebate applied at permit application for use of a certified Passive House Designer or Consultant⁴
- \$8,500 FortisBC rebate when natural gas is used for space or water heating⁵

STEP 5

Increase performance by up to 80% with an incremental cost as low as 4%. Zoning provisions accommodate thicker walls and roofs required for insulation.

Incentives at this step include:

- an 8% maximum floor area and site coverage increase calculated as follows:
FAR Example: $10,000\text{ft}^2$ (lot area) \times 0.35 = $3,500\text{ft}^2$ (allowable FAR)
 $3,500\text{ft}^2$ (allowable FAR) \times 1.08 = $3,780\text{ft}^2$ (FAR including incentive)
- an increased roof ridge height of 300mm (12")
- a reduced front/side/rear yard setback by 300mm (12")
- \$400 BC Hydro rebate applied at permit application for use of an Energy Advisor⁴
- \$8,500 FortisBC rebate when natural gas is used for space or water heating⁵

STEP 4

Increase performance by up to 40% with an incremental cost as low as 2%. Zoning provisions accommodate thicker walls and roofs required for insulation.

- 4% maximum floor area and site coverage increases calculated as follows:
FAR Example: $10,000\text{ft}^2$ (lot area) \times 0.35 = $3,500\text{ft}^2$ (allowable FAR)
 $3,500\text{ft}^2$ (allowable FAR) \times 1.04 = $3,640\text{ft}^2$ (FAR including incentive)
- an increased roof ridge height of 150mm (6")
- a reduced front/side/rear yard setback by 150mm (6")
- \$400 BC Hydro rebate applied at permit application for use of an Energy Advisor⁴
- \$4,100 FortisBC rebate when natural gas is used for space and water heating⁵

STEP 3

Minimum requirement for all new homes effective July 1, 2018

Increase performance by up to 20% with an incremental cost as low as 1%.

This can be achieved utilizing conventional building designs with additional attention to air-sealing practices. The proposed building must be modeled to meet the standard by an Energy Advisor prior to building permit application. Mid-construction and pre-occupancy airtightness testing is required to demonstrate that the constructed building performs as designed.

- \$400 BC Hydro rebate applied at permit application for use of an Energy Advisor⁴
- \$2,000 FortisBC rebate when natural gas is used for space and water heating⁵

