

BC ENERGY STEP CODE (BCESC)

The BC Energy Step Code (BCESC) is a provincial standard that provides an incremental and consistent approach to achieving more energy-efficient buildings. It provides a common pathway to ensure British Columbia delivers on its goal of net-zero energy-ready performance by 2032. It does so by establishing a series of measurable, performance-based energy-efficiency requirements for construction.

A BC Building Code (BCBC) update has been adopted by the provincial government and will come into effect May 1, 2023. Prior to this update:

1. The BCESC has been a voluntary regulation that municipalities could adopt as desired and ready to implement.
2. Designers and builders have had the option to use either the “prescriptive” or “performance” approach to comply with the BCESC.

This update makes it mandatory that all Part 9 (Housing and small commercial) buildings:

1. Conform to Step 3 of the BCESC
 - a. Step 3 buildings are approximately 20% more efficient than the base standard of the 2018 BCBC.
2. Follow the performance path of the BCESC unless the building bylaw permits the allowance of the prescriptive path.
 - a. Performance path requires the engagement of a Certified Energy Advisor to both design the building and test the building at completion to ensure compliance with the BCESC.

In response to feedback from rural and remote communities who wish to maintain a prescriptive-based option, the provincial government developed a prescriptive alternative for the BCESC Step 3 Requirements. This option is available to local governments through the adoption of a bylaw enabling its use.

The Cariboo Regional District is typical of most rural areas outside of the lower mainland in that there is a shortage of the energy advisors required to conform with the performance-based approach of the BCESC. The CRD recently amended its building bylaw to allow for the use of the prescriptive-based performance option of the BCESC.

A summary of the Required ETR of this code update can be found at [Energy Step Code](#).

A copy of the Code changes coming May 1, 2023, can be found at [Effective Thermal Resistances of Assemblies](#)

FURTHER INFORMATION ON HOW THIS WILL AFFECT YOUR PERMIT APPLICATIONS WILL FOLLOW.



EFFECTIVE THERMAL RESISTANCES OF ASSEMBLIES BCBC 2018 vs 2022 Prescriptive Energy Step Code Requirements

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Effective Thermal Resistance of Above-ground Opaque Assemblies in Dwelling Units	BCBC 2018		Energy Step Code 2022	
	RSI	R-Value	RSI	R-Value
Ceilings below attics	8.67	49	10.43	59
Cathedral ceilings	4.67	27	4.67	27
Flat roofs	4.67	27	5.28	30
Walls	3.08	17	3.69	21
Floors over unheated spaces	4.67	27	4.67	27
Effective Thermal Resistance of Assemblies Below-Grade or in Contact with the Ground in Dwelling Units	RSI	R-Value	RSI	R-Value
Foundation walls	2.98	17	3.97	22.5
Unheated floors				
Below frost line	0	0	2.98	17
Above frost line	1.96	11	3.46	19.6
Heated floors	2.84	16	3.46	19.6
Slabs on grade with integral footing	3.72	21	3.46	19.6
Required Thermal Characteristics of Fenestration for Buildings containing dwelling units	U-Value	R-Value	U-Value	R-Value
	1.6	3.5	1.22	4.7

Climate Zone 6

Cathedral Roof No Change
Now 4.67

Flat Roof Was 4.67
Now 5.28

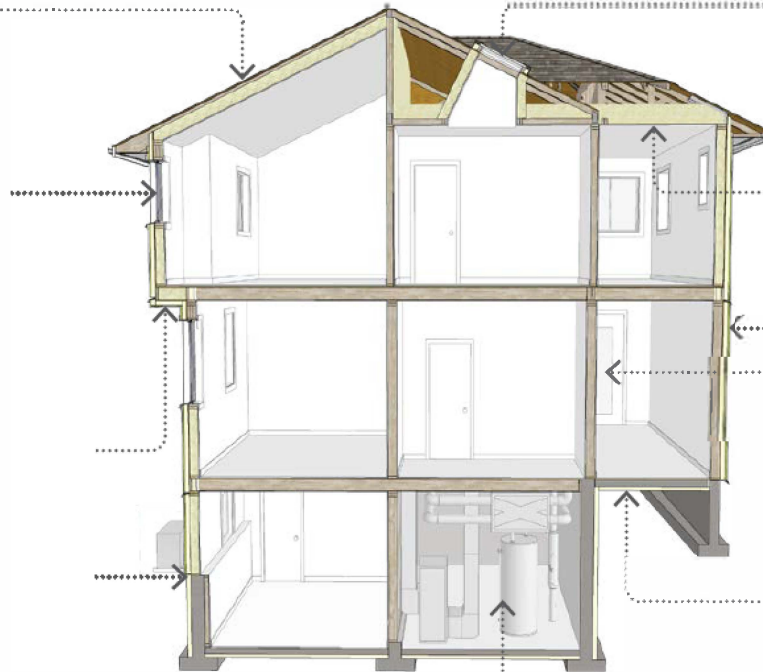
Glazing Was U1.60
Now U1.22

Exposed Floor No change
Now 4.67

Foundation Walls Was 2.98
Now 3.97

Heating and Ventilation
Heat Pump
Or
HRV 75% SRE

ACH
Assumed value
No testing required



Skylights Was 2.7
Now 2.75

Roofs Was 8.67
Now 10.43

Walls Was 3.08
Now 3.69

Glazed Doors Was U1.6
Now U1.61

Slab
Below Frost Was uninsulated
Now 3.46

Above Frost Was 1.96
Now 3.46

Heated Was 2.32
Now 3.46