



ENERGY
STEPCODE
BUILDING BEYOND THE STANDARD

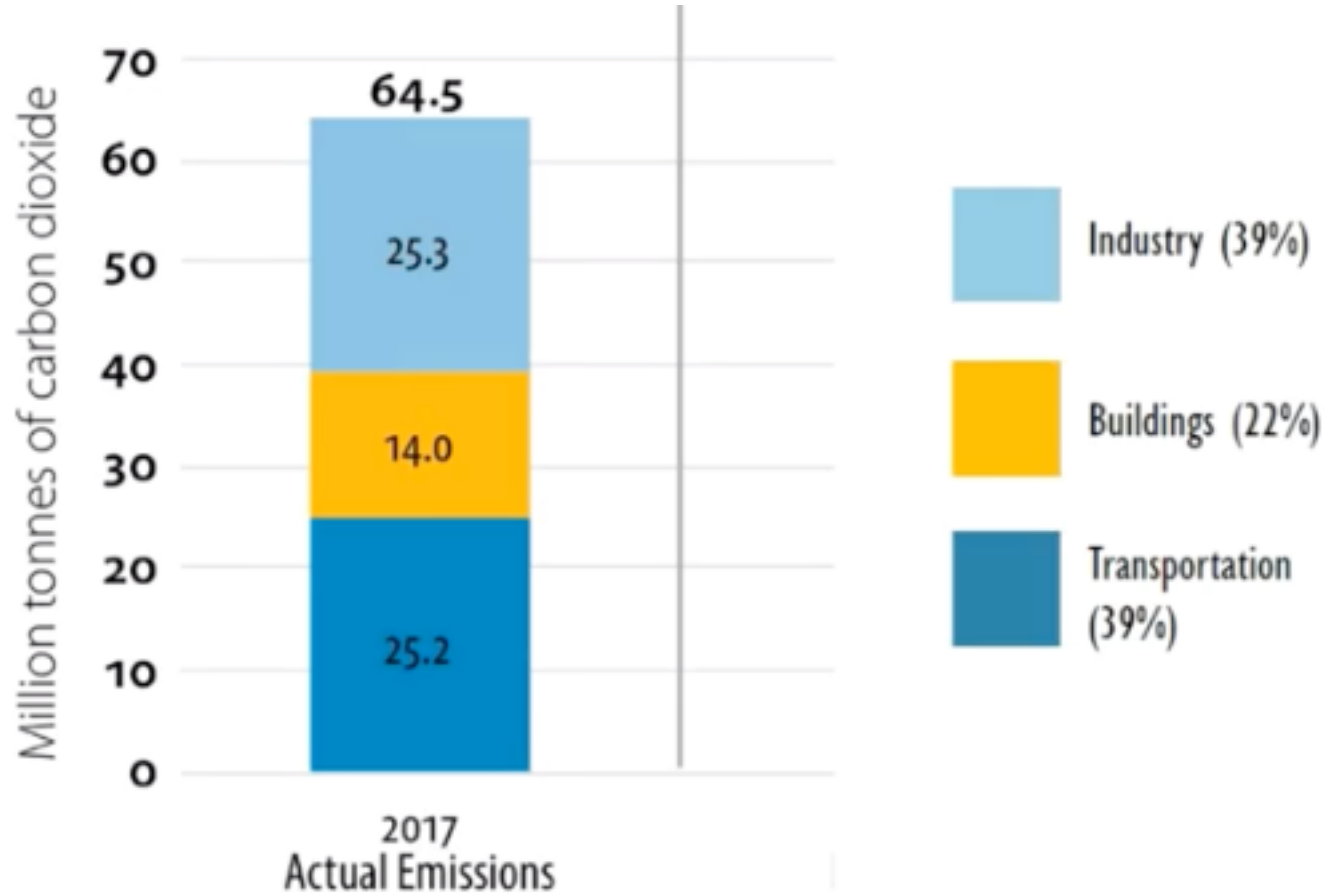
ENERGY STEPCODE

BUILDING BEYOND THE STANDARD

- It's a voluntary standard part of the BC building Code
- Been introduced in 2017
- Sets higher requirement for energy efficiency
- It has a series of steps toward higher energy efficiency

Why is it important to be more energy efficient?

B.C.'s emissions by sector (2017)



The goal of the Step Code

By 2032, new buildings will be
80% more energy efficient
than a home built today.



Roadmap to Net-Zero Energy-Ready Buildings

Timeline for Energy Efficiency Regulatory Requirements in the BC Building Code

Here's what the province's CleanBC plan will mean for new-construction requirements.

2032

STEP 5

STEP 4

NET-ZERO ENERGY-READY

UP TO:

80%

2027*

STEP 4

STEP 3

40%

2022*

STEP 3

STEP 2

20%

*NEW TARGET DEADLINES



PART 9
BUILDINGS



PART 3
BUILDINGS

Energy-efficiency improvement
above 2018 BC Building Code
requirements

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Performance Compliance

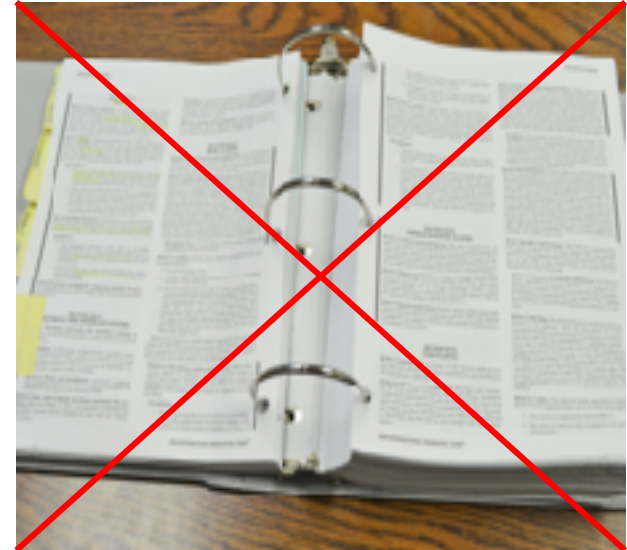


Energy Modeling by
Natural Resources
Canada Certified Energy
Advisor



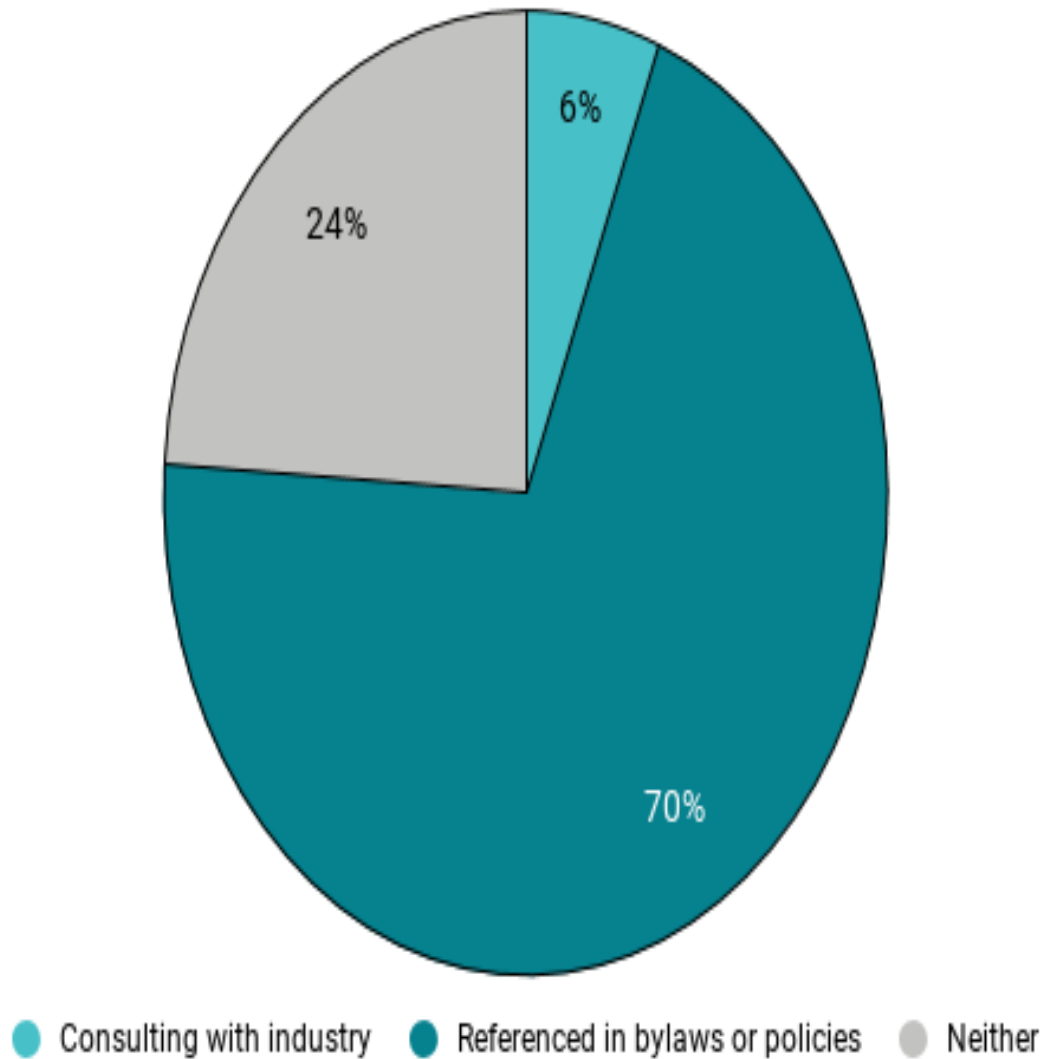
Air-Tightness Testing

- Achieve minimum performance levels



No Prescriptive Energy
Requirements

Local Government Adoption



1. City of Richmond – June 16, 2017*
2. City of North Vancouver – July 4, 2017*
3. City of Campbell River – July 10, 2017*
4. City of Duncan – August 24, 2017*
5. District of North Vancouver – September 1, 2017*
6. City of Victoria – September 27, 2017*
7. District of Saanich – September 27, 2017*
8. Comox Valley Regional District – October 3, 2017*
9. District of North Saanich – October 4, 2017*
10. Resort Municipality of Whistler – October 5, 2017*
11. District of West Vancouver – October 24, 2017 *
12. **Township of Langley** – November 7, 2017*
13. District of Squamish – November 9, 2017*
14. City of New Westminster – November 28, 2017*
15. City of Surrey – December 7, 2017*
16. City of Kelowna – January 22, 2018*
17. City of Penticton – January 27, 2018*
18. City of Burnaby – March 1, 2018*
19. City of Kimberley – March 12, 2018*
20. City of Vernon – March 19, 2018
21. Village of Belcarra – March 27, 2018*
22. District of Peachland – March 28, 2018
23. District of Oak Bay – April 11, 2018*
24. City of West Kelowna – April 12, 2018
25. District of Sparwood – April 23, 2018*
26. District of Summerland – June 5, 2018
27. District of Lake Country – June 7, 2018*
28. City of Nanaimo – June 25, 2018
29. City of Kamloops – July 17, 2018*
30. District of Central Saanich – July 17, 2018*
31. **City of Port Moody** – September 24, 2018*
32. City of Nelson – October 9, 2018*
1. District of Elkford – November 6, 2018
2. **City of Abbotsford** – January 28, 2019
3. City of Rossland – February 8, 2019*
4. Town of Creston – February 22, 2019
5. Village of New Denver – February 28, 2019
6. Bowen Island Municipality – March 4, 2019*
7. Regional District of East Kootenay – March 12, 2019
8. Village of Kaslo – March 25, 2019
9. City of Port Coquitlam – April 23, 2019
10. **City of Maple Ridge** – May 31, 2019
11. Village of Pemberton – June 21, 2019*
12. Municipality of North Cowichan – August 21, 2019
13. City of Powell River – September 4, 2019
14. Town of Smithers – September 4, 2019
15. City of Salmon Arm – September 11, 2019
16. Regional District of Central Kootenay – September 13, 2019
17. City of Terrace – September 13, 2019
18. City of Courtenay – October 3, 2019*
19. City of Colwood – October 9, 2019
20. Village of Golden – October 15, 2019
21. Village of Nakusp – October 16, 2019
22. Village of Slocan – October 17, 2019
23. Town of View Royal – October 25, 2019
24. Town of Comox – October 25, 2019
25. City of Fernie – October 29, 2019
26. District of Ucluelet – October 31, 2019
27. **City of Pitt Meadows** – Jan. 29, 2020
28. City of Prince George – Feb. 19, 2020
29. Town of Gibsons – Feb. 20, 2020
30. District of Sechelt – March 2, 2020
31. Sunshine Coast Regional District – March 6, 2020
32. City of Revelstoke – May 19, 2020

Trade-Offs

- Increased construction costs. (mostly for the upper Steps)
- Local government staff and builders will need to be trained on new practices.

Benefits

- Improve comfort, by better managing temperature (cooler in summer)
- Improve health, by better managing fresh air throughout the building
- Reduce noise, through better insulation and airtightness
- Require less energy, save money on your energy bill.
- Are more durable
-

CASE STUDY: in **Campbell River, BC** (climate zone 5)

Four bedroom home 2,525 square feet

The place reaches Step 3 requirements

Build cost: \$381,564 or \$151/sq ft.

0% above the cost to build the existing energy efficiency requirements of the BC Building Code.

The secret? Everyday materials and strict attention to detail.

CASE STUDY: in **Invermere, BC** (climate zone 5)

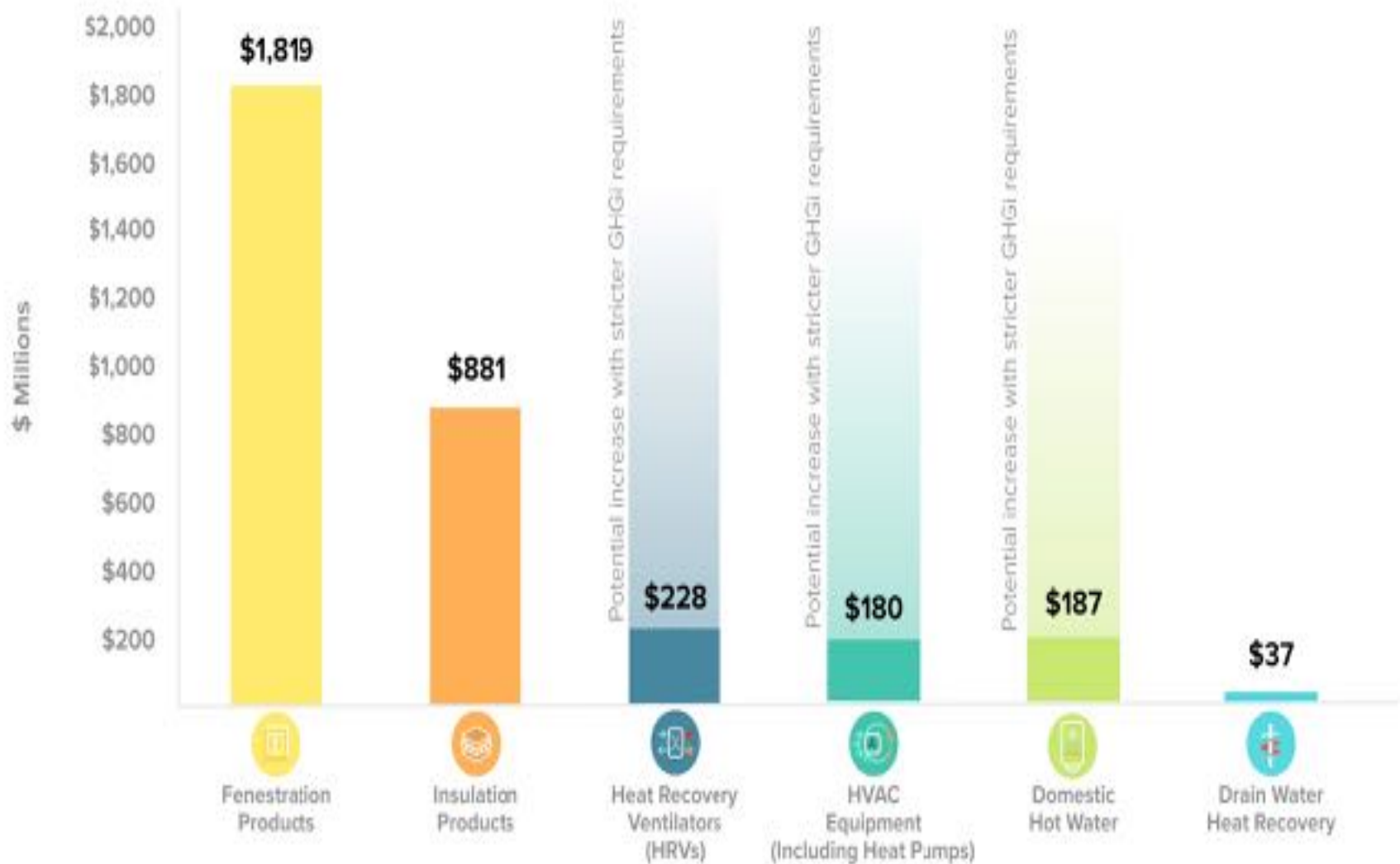
Single-family starter home, 1,536 square feet

The place exceeds the requirements of Step 3

Build cost: \$308,800 or \$201/sq ft.

Less than 1% above cost to build to the existing energy efficiency requirements of the BC Building Code

An Economic Development Driver





Thank You!

My request is for the board to ask staff to send the initial notification for the intent to include the Step Code into the bylaws in the near future.

Industry Capacity Building Workshops

Building Smart

- BC Housing series has trained 1,617 builders, engineers, architects, others.

