



Building A Legacy

Building local knowledge, opportunity, and capacity

Step Code Solutions for Northern BC

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Pelican Consulting

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Community Energy
Association



CANADIAN
HOME BUILDERS' ASSOCIATION
NORTHERN BC

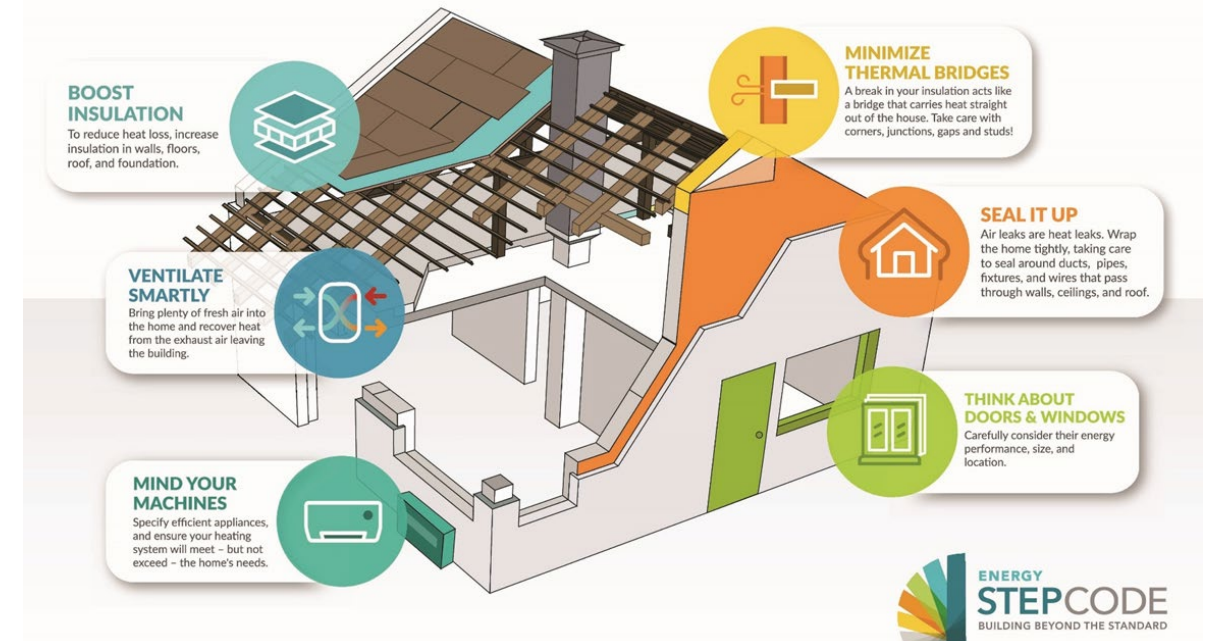


BC Hydro
Power smart

Presentation Overview



- Overview: BC Energy Step Code
- Building A Legacy North
- Prince George Case-Studies
- Discussion



BC Building Code Changes



Utilities Supports & Incentives

Step	BC Hydro	FortisBC	PNG
2		\$3 000	
3	\$4 000	\$4 000	
4	\$6 000	\$6 000	
5	\$10 000	\$10 000	

\$1000 toward energy modelling and testing by a qualified energy advisor

<https://betterhomesbc.ca/rebates/cleanbc-new-construction>

<https://www.fortisbc.com/rebates/home/new-home-program>



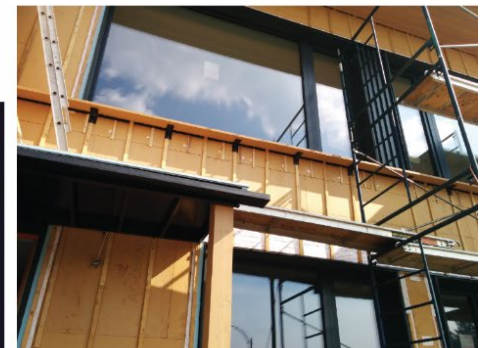
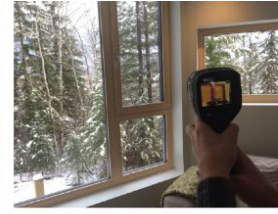
Supporting early implementation

- Provides opportunity for incentives, education and familiarity with the process
- Signal to the market: energy advisor capacity, suppliers, trades, contractors and builders
- Better homes sooner, for residents



Building A Legacy Initiative

- Inspired by successful Step Code engagement in the East Kootenay
- Multi-stakeholder training, knowledge & peer learning
- Policy & communications support



**Building
A Legacy**

Building local knowledge, opportunity, and capacity



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Building A Legacy North

- Northern Local Government peer network
- **Building a Legacy Toolkit:** policy, communications, resource links, recorded webinars, etc.
- **Step Code Accelerator Funding-** up to \$10K per northern sub-region to address barriers



Building A Legacy North –Activities so far

- **Step Code Solutions for Northern BC**
 - 90 attendees, primarily builder/contractors
- **Northern Step Code Peer Network**
 - 70 participants across 3 workshops
 - Identifying barriers and opportunities
- **Step Code Accelerator Funding**



Building A Legacy North

- 3 Key Takeaways so far...

- Most builders in cold climates are already achieving Step 2 or 3 of the Step Code.

> Paying closer attention to air-tightness could get most to Step 3.

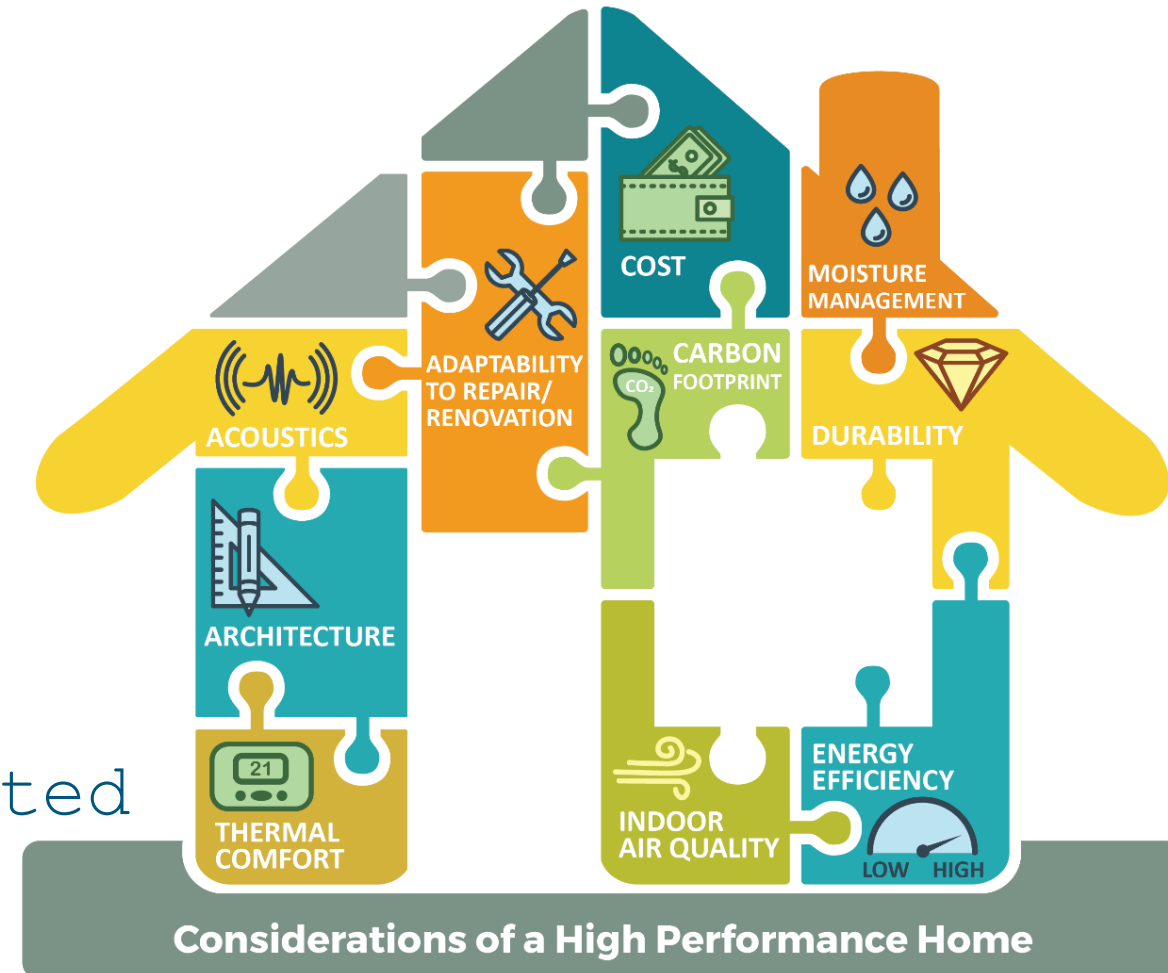
- Step Code will become part of the building code, province-wide, by December 2022.

- The "performance pathway" of the Step Code will require the involvement of an energy advisor/modeler from the design

Resources and Training



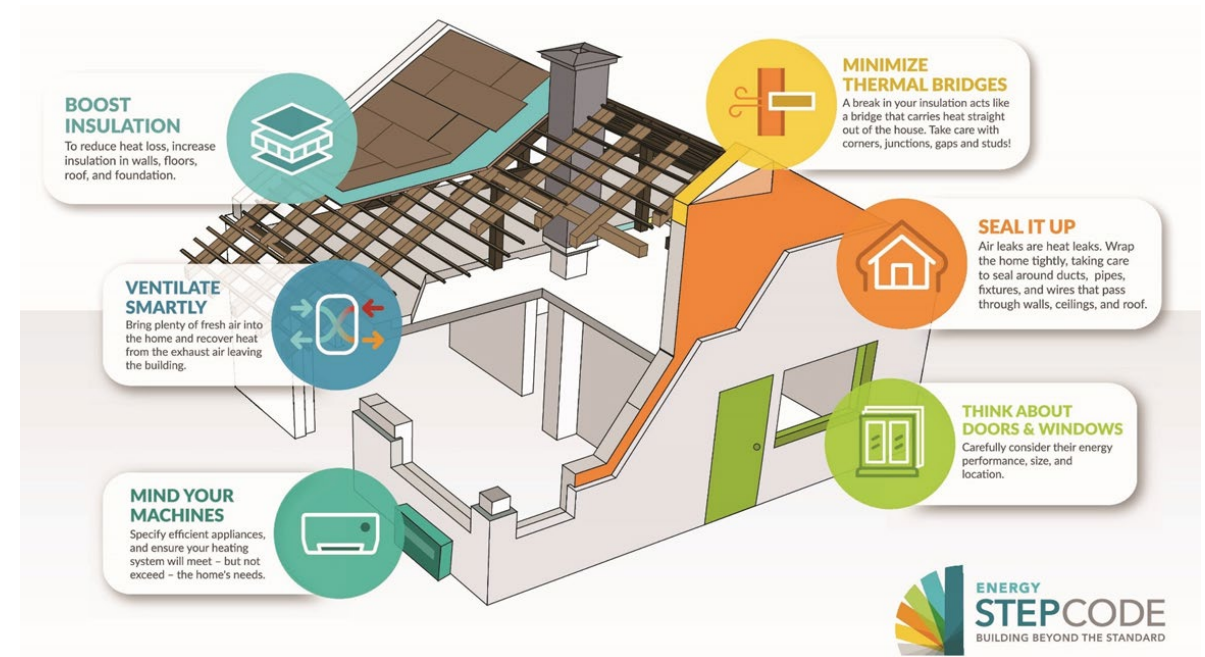
- Energy Step Code website:
www.energystepcode.ca
- Building A Legacy:
www.communityenergy.ca/bal/
- Case Studies
- Recorded webinars & associated resources



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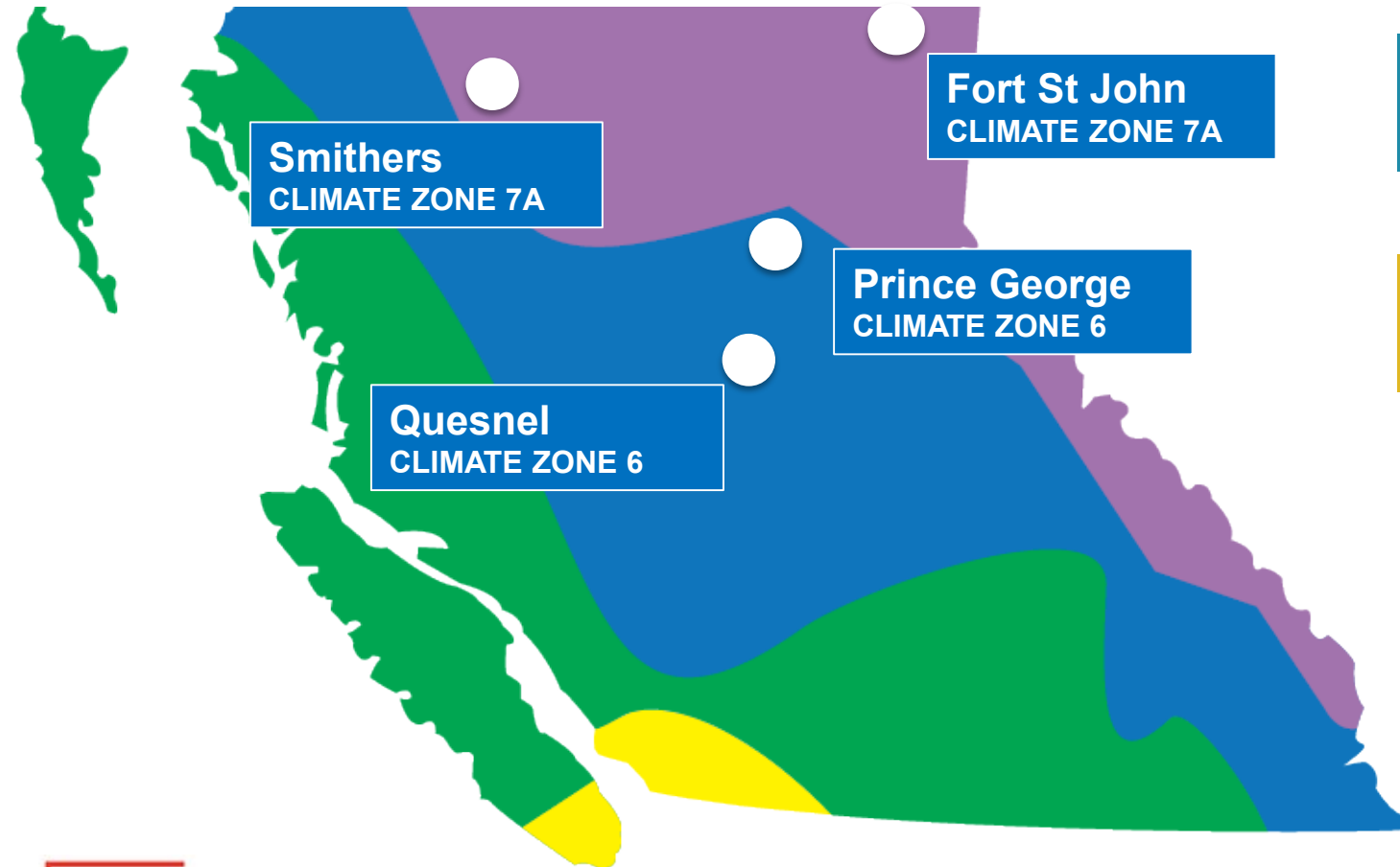
Energy Performance Excellence:

Ten Northern BC residential
builds that meet Steps 2, 3 and 4
of the BC Energy Step Code

Presented by:
Alison Conroy



Northern BC Performance Path Initiative Program



- 2 homes built to Step 2 requirements

- 5 homes built to Step 3 requirements

- 3 homes built to Step 4 requirements

Six Basic Strategies

that cost-effectively boost performance

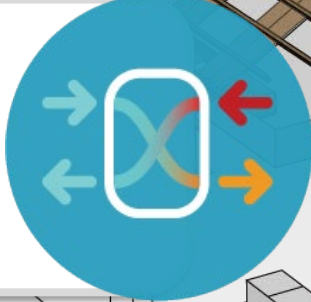
BOOST INSULATION

To reduce heat loss, increase insulation in walls, floors, roof, and foundation.



VENTILATE SMARTLY

Bring plenty of fresh air into the home and recover heat from the exhaust air leaving the building.



MIND YOUR MACHINES

Specify efficient appliances and ensure your heating system will meet – but not exceed – the home's needs.



BAN BRIDGES

A break in your insulation acts like a bridge that carries heat straight out of the house. Take care with corners, junctions, gaps and studs!



SEAL IT UP

Air leaks are heat leaks. Wrap the home tightly, taking care to seal around ducts, pipes, fixtures, and wires that pass through walls, ceilings, and roof.



THINK ABOUT DOORS & WINDOWS

Carefully consider their energy performance, size, and location.

CASE STUDY: Pilot Mountain Road, Prince George, BC

Climate zone	6
Builder	Belledune Homes
Project size	3615 SQ FT
Final Airtightness value	1.42 ACH@ 50Pa
Energy efficiency over code-built house	+35%
BC Energy Step Code Step achieved	Step 3

The thermal envelope included 2x6 walls with R22 batt above grade, and an ICF foundation with a total of R21 below grade

BOOST INSULATION

To reduce heat loss, increase insulation in walls, floors, roof, and foundation.



CASE STUDY: Maurice Drive, Prince George, BC

Climate zone	6
Builder	Brownridge Developments
Project size	4747 SQ FT
Final Airtightness value	0.42 ACH@ 50Pa
Energy efficiency over code-built house	+55%
BC Energy Step Code Step achieved	Step 4

Attention to detail to ensure all penetrations through the air barrier system allowed the builders to achieve a very low air change rate



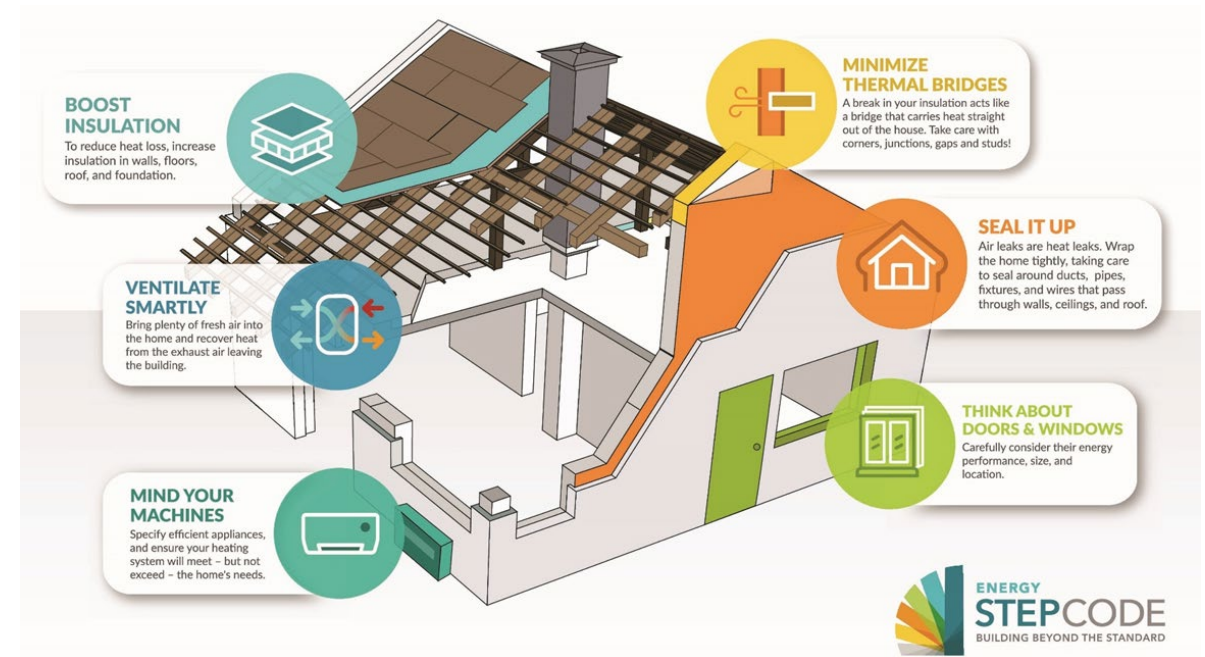
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Thank-you

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