

Low Carbon and High-Efficiency Training and Resources for Building Industry Professional

Building Education Providers

- 1) <u>BC Housing Step Code Learning on Demand Modules</u>
 Maintains online builder learning modules available for a small charge. CPD points available.
- 2) <u>BCIT- Zero Energy/Emissions Building Learning Centre</u> (scroll down to 'MicroCredentials') Onsite (Burnaby) and online learning opportunities. Includes a wide variety of credentials and courses, ranging from Microcredentials to Advanced Certificates and individual courses on Net Zero Energy and Passive House construction, Zero Carbon, Energy Modelling and Energy Management, including Building Controls and Building Retrofits.
- 3) ZEBx/ Zero Emissions Innovation Centre A centre designed to rapidly accelerate the knowledge, capacity and passion for zero emission buildings. Hosts a number of webinars and learning resources focused on electric low emission building technologies.
- 4) <u>Canadian Home Builder's Association Central Vancouver Island</u> Local chapter of the Home Builders Association hosts a number of education events for builders.
- 5) <u>Canada Green Building Council- BC</u> Encourages green building by supporting the people who design, construct and operate buildings. Provides the building sector with innovative standards, verification services, education, and training. Provides LEED accredited courses and maintains a green building events calendar.
- 6) <u>VIU Trades- Carpentry, Refrigeration Air-Conditioning Mechanic, Electrician</u> Provides local education to local builders and tradespeople.
- 7) Passive House Canada

A national non-profit professional association advocating for the Passive House high-performance building standard. Provides resources and education to inform, train, and support industry, and governments regarding energy efficiency and low-carbon building design, particularly focused on meeting the Passive House energy efficiency standard.

- 8) Passive House Accelerator
 - US based industry focused group that offers weekly online learning seasons from industry experts focused on Passive Home building techniques and technologies.
- 9) <u>Camosun College Construction for Energy Efficient Buildings</u>
 Offers a number of builder education courses including an online microcredit course with Passive House Canada in the construction of energy-efficient buildings.
- 10) Climate Risk Institute

The Climate Risk Institute (CRI) is a non-profit, academically affiliated organization focused on advancing practice and delivering services related to climate change risk assessment, adaptation planning, policy evaluation, and resiliency. They offer a "Building Skills for Climate Change: Low Carbon Buildings Training" course for professionals, including architects, engineers, contractors, and owners and operators, to accelerate the adoption of low-carbon practices and reduce emissions.

CDP points, on-demand learning

1. <u>BC Housing Energy Step Code Training Modules</u> – after opening page, click 'filters' and filter by 'Step Code' – 2.5-3 hours per module, 8 modules, ~\$90/module

https://www.bchousing.org/publications/BCEnergy-Step-Code-Training-Overview.pdf

Non-CDP - Useful Videos

For Builders/Designers

- LEEP Wall Assembly Videos by BCIT and Natural Resources Canada (NRCan)- High performance walls (About 20-45 min each)
 LEEP Wall assembly video library
- Passive House Accelerator Live online events and YouTube Archive
 Weekly topics ranging from Passive House 101 series to building material/component
 spotlights. Focus is on Passive House construction but many topics are relevant to high
 performance building overall. Welcoming group of builders/designers from across North
 America.
- 3. BC Green Building Calendar

Calendar of events and training related to green building subject matter, including emissions, energy efficiency, resiliency, high-performance design, and more.

4. Township of Langley- - Builders Education Forum video archive -

Seminar recordings on topics that specifically address key issues with building for Step Code. Might have to skip some sections to get to the main speaker.

- Air Tightness

 Township of Langley Builder Forum Start at Minute 46:00
 - Start at Minute 46 (video link above does that automatically)
 - o Time required: **1hr 15 min**, plus another 15 min of time for Q&A if you want
 - Title mentions part 3 but just as applicable to Part 9 (except costs are a lot less than mentioned)
- Part 9 Buildings and Upper Step Code: Start at Minute 32:16
 - Start at Minute 32:16 (video link does this automatically)
 - Time required: 1.5 hours
 - Goes over key changes you need to know about to build to higher steps
- 5. District of Saanich builder webinars

Upcoming: mid October 2023: Using Step Code Checklists, including updates for Energy Step Code and Zero Carbon Step Code

https://www.saanich.ca/EN/main/community/sustainable-saanich/bc-energy-step-code-and-carbon-pollution-standard.html

On May 1, 2023, Revision 5 of the BC Building Code 2018 came into effect. Checklists have since been released to reflect the changes, which include updates to the Energy Step Code and the introduction of the Zero Carbon Step Code.

These free webinars will provide an overview of how to use/ review the Checklists, including typical case studies and more complex examples. We will also introduce the User Guides and provide an opportunity to ask questions and give feedback.

Prefer to Read?

Lots of great resources at BC Energy Step Code

https://energystepcode.ca/builder-guides/

Formal Post-Secondary Programs

-usually delivered in evenings, online. Takes more time but pro that you can meet others working on the same topics and talk to builders/designers with practical experience.

1. BCIT- Zero Energy/Emissions Buildings Learning Centre

Supports the construction industry with transitioning to the BC Zero Carbon Step Code and City of Vancouver Zero Emissions Building bylaws. We provide a full suite of Net Zero Energy and Zero Emissions Construction courses that are short and hands-on at the High-Performance Building Lab and online.

Designed for builders, designers and energy modelers Delivered by builders/designers

Includes access to video library of air sealing approaches, how to handle tricky transitions and details etc. and many other resources developed or collected by BCIT.

Courses online AND some hands on at BCIT's High Performance Building Lab

Micro Credentials offered include:

- Essentials of Net-Zero and Passive House Construction Microcredential
- Supervising Net-Zero and Passive House Construction Microcredential
- Residential Air Source Heat Pump Installation Skills Course
- Individual courses within each of these if needing shorter time commitment or specific info (e.g. mechanical systems for high performance)
- 2. Camoson College (with PassiveHouse Canada)
 - online microcredential (evenings) for Construction of Energy Efficient Buildings.

For engineers:

<u>Building Skills for Climate Change: Low Carbon Buildings Training- Climate Risk Institute</u>
Part of the Canada Green Building Council's (CAGBC) Building Skills for Climate Change:
Low-Carbon Training Program funded by the Government of Canada. A specialized low-carbon buildings training course for engineers and other practitioners in the building workforce.
With the objective of increasing knowledge and awareness of low-carbon building concepts,

this specialized training course will equip engineering professionals with collaborative decision-making, design, construction and operation skills and knowledge to retrofit and build the low-carbon buildings needed for a climate-safe future.

Local Government Education Programs

- Township of Langley- hosts events to help builders, realtors, inspectors, and the public transition towards a world of high-performance buildings through workshops and expert presentations.
- 2) <u>RDN</u>- Maintains Green Building Series Guidebook, example projects and hosts public-oriented webinars on renovation and high performance building.
- 3) Saanich occasional webinar/seminars on specific topics
 - Upcoming: mid October 2023: Using Step Code Checklists, including updates for Energy Step Code and Zero Carbon Step Code https://www.saanich.ca/EN/main/community/sustainable-saanich/bc-energy-step-code-and-carbon-pollution-standard.html

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Incentives and Grants

1) CleanBC Better Homes New Construction Program

Provides rebates up to \$15,000 for the construction of new, high-performance, electric homes. Popular and rebates go quickly each year.

2) StrongerBC future skills grant

The StrongerBC future skills grant (FSG) is here to help you pursue the future you want. The grant will cover up to \$3,500 of eligible costs for your short-term skills training at public universities and colleges in BC.

Camosun College: -

Construction for Energy Efficient Buildings MicroCredential

BCIT: (institutional deadline may have passed) -

- Essentials of Net-Zero and Passive House Construction Microcredential
- Supervising Net-Zero and Passive House Construction Microcredential
- Residential Air Source Heat Pump Installation Skills Course