Presentation Overview

Presentation Overview

- Local Government Role in Step Code
- Policy Context
- Previous Engagement on Step Code
- Implementation of Step Code in the Capital Region to date
- Council Direction on next steps
- Engagement Approach and Timeline

Establish an appropriate implementation strategy for Step Code in our local context, including:

- Focus on greenhouse gas emissions reductions
- What Steps to adopt for different project types
- Timing for "stepping up" between now and 2030
- Transition times & in-stream protection
- Strive for regional homogenization



CleanBC and Roadmap to 2030 and Local Government Act requirements re: GHG Reduction Targets and Reporting







- 50% GHG reduction by 2030 target
- 100% GHG reduction by 2050 target
- 100% Renewable Energy by 2050 target

Previous Engagement on Step Code



Previous Engagement on Step Code

۲

•

Phase 1 Results

Led to draft approach -Step 3 for all Part 9 and Part 3 new buildings

- Value in Regional Coordination
- Need for **local training** builders, sub-trades and local government staff, cognizant of time restrictions
- Minimize costs while considering operational savings that support affordability
- Provide support in communicating the benefits to the market
- Ensure clear expectations and communication of timelines and Step Levels

EVALUATION CRITERIA

Regional Coordination

Industry Capacity & Readiness

Climate Action

Housing Affordability & Cost Implications

Step Code Adoption in Region

CRD municipalities that have adopted Step Code	Adopted Step 3 for Part 9 residential buildings	Have adopted Step 3 for low-rise residential (up to 6 storeys)	Have adopted Step 2 for high-rise residential and commercial
Central Saanich	Yes	Yes	Yes
Colwood	Yes	Yes	Yes
North Saanich	Yes*	Yes	?
Oak Bay	Yes	No – Step 2	Yes
Saanich	Yes*	Yes	Yes
Sooke	Yes	Yes	Yes
Victoria	Yes*	Yes	Yes

*Step 2 for small homes/garden suites

Compliance Process

Part 9 Process Design

Build

Confirm

Occupy



Designer/builder works with energy advisor to ensure design meets requirements of Step Code

Pre-construction Compliance Form is completed by Energy Advisor and submitted with Building Permit application

Building construction starts



Optional – conduct mid-construction (pre-drywall) blower door test to assess air leakage in envelope



Building construction completes + final blower door test conducted



Post-construction/as-built compliance form is completed by Energy Advisor and submitted to City



Approval for occupancy

Compliance Approaches to Date

Common Construction Approaches for Part 9 – Residential Buildings



Compliance Approaches to Date

Common Construction Approaches

- 83% of buildings use 2x6 construction with batt insulation in the cavity. R19-24
- 78% of buildings use 6 mil poly inside studs for the air barrier
 - Average score: 2.68 ACH
 - Lowest 1.1 ACH
- 14% use an exterior air barrier
 - Average score: 1.95 ACH
 - Lowest 1.2 ACH



Compliance Approaches to Date

Space Heating by Fuel Type



Common Space Heating Equipment

- Air Source Heat Pumps 34%
- Electric Baseboards: 15%
- ASHP and Electric Baseboards: 14%
- Natural Gas: 11.5%

Water Heating by Fuel Type



Common Hot Water Heating Equipment

- Natural Gas On-demand: 68%
- Electric tanks: 15%

Kg of carbon emissions/m2 per year	Fossil Fuel Use	Percentage Reported
9.1 +	No limitations	29%
6.1 - 9	Both hot water and space heat possible	14%
3.1 - 6	Limited to hot water	20%
3 or less	Convenience appliances only	37%

Buildings with a GHGi of 6 or less:

• All had electric heat – 2 back-up NG furnace

Buildings with a GHGi of 3 or less:

- 30% were all electric
- 70% had condensing NG hot water heaters

Council Direction on Next Steps

Targets and Council Direction:

- Zero Carbon & 100% Renewable Energy by 2050
- 50% GHG emissions reduction by 2030
- Specific direction to adopt highest steps of Step Code and decarbonize new construction
 - Integrate low/zero carbon energy systems into the Step Code approach
 - ➢ By 2025 for residential less than 6 stories
 - > By 2027 for greater than 6 stories and commercial







Central Saanich

Approach to Step Code Adoption





ENERGY EFFICIENCY

Approach to next phase of Step Code Adoption

Part 9

•

Engagement approach focused on Higher Steps of the Code and/or GHGi requirements



Engagement Approach & Timeline



Engagement Survey

Survey:

- <u>Available at: https://surveys.crd.bc.ca/surveys/step-code-low-carbon-energy</u>
- <u>Audience:</u>
 - Iocal Part 3 and Part 9 industry (Developers, contractors, designers, builders, construction managers, trades, design professionals, energy modelers etc.)
- <u>Purpose:</u> to identify and understand
 - Local industry experience with Step Code and LCES to date
 - Opportunities and challenges with a variety of Step Code and LCES adoption scenarios
 - Additional needs
 - Is supported by an accompanying backgrounder
- <u>Use:</u> Will inform draft adoption scenarios for the next phase of engagement
- <u>Closes:</u> March 27