



# BC ENERGY STEP CODE: CAPITAL REGION PHASE 2 ENGAGEMENT SUMMARY: APRIL 2018

## 1.0 Introduction

The BC Energy Step Code is a provincial building regulation enacted in April 2017 that applies to new residential, multi-unit and commercial construction. It establishes progressive performance steps in energy efficiency for new buildings from the current BC Building Code level to net zero energy ready buildings by 2032. It was developed through wide-ranging stakeholder consensus over a two year period through a series of working groups and committees convened by the Building and Safety Standards Branch of the BC Provincial Government. More information is available at [www.energystepcode.ca](http://www.energystepcode.ca).

Local municipalities in the Capital Region are exploring the potential for adoption of the BC Energy Step Code and have engaged industry and key stakeholders with support from the Capital Regional District (CRD). A two phased approach to engagement has been undertaken:

- Phase 1:** To provide information and raise awareness of the Step Code and for industry to provide feedback to municipalities in the Capital Region on the opportunities, concerns and potential approach for local implementation, including Step levels, timeline and support required.
- Phase 2:** Using feedback from the first Phase of engagement, identify options and a proposed approach for implementation of the Step Code locally, cognizant of the benefit of consistency across the region. The purpose of the second phase of engagement was to provide a summary of the phase 1 feedback, outline the proposed approach and municipal process, provide information regarding the technical requirements of the proposed approach from local experts and builders and then seek feedback from industry and key stakeholders on this proposed approach.

## 2.0 Summary of Phase 1 Engagement

In summer 2017, the Capital Regional District (CRD) Inter-Municipal Working Group was convened to help develop a program of engagement on options for adoption of the Step Code locally. The CRD worked closely with the District of Saanich, City of Victoria, District of North Saanich other local municipalities, Urban Development Institute (UDI) - Capital Region and Canadian Home Builders Association (CHBA) - Vancouver Island to plan and deliver this engagement with funding support from BC Hydro.

## 2.1 Phase 1 Engagement Events

The Phase 1 Engagement events (Table 1) were intended to raise awareness about the Step Code and receive feedback in four key areas:

- Key concerns for implementation of the Step Code locally.
- Key opportunities regarding implementation of the Step Code locally.
- Support required from local governments to help with adoption.
- Which steps are achievable today and into the future.

**Table 1: Phase 1 Engagement Events**

### Phase 1 Engagement: Quick Facts

Capital Region Building Industry Survey	57
CRD Housing Action Team (HAT) Presentation	Approx. 20
Building Industry Workshop #1	90
Workshop #1 Follow Up Survey	13
Building Inspectors Working Session	41
Internal Municipal Staff workshops	-
Local Government Elected Official Presentation & Building Tour	25
BC Housing Building Smart Series: Lower Steps	87
Local Government Staff Step Code Policy Workshop	31
Realtor Workshop: "Selling Energy Efficiency"	32
Energy Literacy Communications Tools & Case Studies	N/A

## 2.2 Phase 1 Engagement Results

The BC Energy Step Code: Engagement – Industry Workshop Summary provides a detailed overview of industry feedback from the first phase of engagement, which is summarised in Table 2.

Several options for implementation of the Step Code were developed based upon a review of Step Code resources (e.g. A Best Practices Guide for Local Governments, the BC Energy Step Code Metrics Research Report and BC Housing Scans), feedback from the Phase 1 engagement and a review of implementation options from other BC Municipalities.

A list of evaluation criteria was then established based upon industry feedback, follow-up inter-municipal working group discussions and internal staff meetings. These criteria were used to evaluate the potential options for implementation of the Step Code, alongside feedback from the engagement events (Table 2).



**Table 2: Phase 1 Engagement Feedback**

Topic	Description	Evaluation Criteria
Value in Regional Coordination	Value in a consistent and coordinated approach to adoption across the region – including steps, timing, process, support and compliance.	Regional Coordination
Steps, Timelines and Capacity	Importance of indicating a clear timeline for Step Code adoption, including future Step levels – to help industry prepare for change and ensure a smooth transition to minimize issues of non-compliance. Support for adoption of Lower Steps – indicating Steps 1 and 2 are current practice and some support for Higher Steps.	Industry Capacity & Readiness
Training and Education	A need for local training for builders, sub-trades, building officials and local government staff that recognizes busy schedules and may be done on-site or on local projects.	
Costs and Affordability	Limited concerns were raised at the industry workshop regarding incremental construction costs. This was identified as a potential barrier to Step Code adoption in the capital region survey. Operational energy and cost savings and affordability were highlighted as key opportunities for home owners and building operators with adoption of the Step Code.	Housing Affordability & Cost Implications
Conveying Benefits to the Market	Adoption of the Step Code provides added value, quality control, transparency for consumers, operational savings and other consumer benefits (e.g. improved environment). Support is required in communicating these benefits to the public, building users and realtors etc.	Climate Action

### 3.0 Phase 2 Engagement Method

The purpose of the second phase of engagement was to provide a summary of the phase 1 feedback, outline the proposed approach and municipal process, provide information regarding the technical requirements of the proposed approach from local experts and builders and then seek feedback from industry and key stakeholders on this proposed approach.

### 3.1 Phase 2 Engagement Events

This second phase of engagement offered both an evening workshop on February 21 and a breakfast workshop on February 22, 2018. The workshops were co-hosted by the UDI – Capital Region, CHBA – Vancouver Island, Vancouver Island Construction Association (VICA), the City of Victoria, District of Saanich and District of North Saanich. They included presentations from:

- City of Victoria and District of Saanich staff - on feedback from the first phase of engagement, proposed approach for implementation, front counter process and next steps.
- Energy advisor and Local Builders – on technical and builder requirements for Step 3 for Part 9 buildings.
- Designers and Architects - on the technical requirements and design implications for Step 3 for Part 3 buildings.
- Q&A and facilitated table discussions to receive feedback on the technical requirements, proposed timelines and application process related to the proposed approach.

The workshops were supplemented by an online/paper survey and one-on-one meetings, phone calls and discussions with key stakeholders and industry members. Phase 2 also included a separate focus group meeting with Part 3 developers to garner more detailed feedback on the implications of the proposed approach given Step 3 is considered a Higher Step for some Part 3 building archetypes.

A range of methods were used to raise awareness of events and ensure comprehensive outreach was achieved, including:

- Local government websites and social media updates.
- Posters and flyers at municipal hall reception, engineering and planning front counters.
- Internal communications to planning and engineering staff to support an increase in awareness of applicants/developers on active applications.
- CHBA, UDI and VICA newsletters and emails.
- Discussions with industry and key stakeholders via phone, email or one-on-one meetings.
- Presentations, case studies and handouts provided to key stakeholder groups and at local industry training sessions e.g. BC Housing, Architectural Institute of BC (AIBC).

**Table 3: Phase 2 Engagement Events**

Phase 2 Engagement: Quick Facts	
Industry Workshop #1: Victoria Conference Centre	45
Industry Workshop #2: Cedar Hill Golf Course	36
Part 3 Developer Focus Group Meeting	8
Phase 2 Industry & Stakeholder Survey	102



## 4.0 Phase 2 Engagement Results

There were 81 attendees total at both workshop events including developers, architects, builders, project managers, energy advisors, mechanical and structural engineers, building inspectors, energy utility representatives, municipal staff and municipal councilors.

### 4.1 Industry Workshop Results

The industry workshops included facilitated table discussions separated into Part 3 or Part 9 developments and focused on three key questions. Table 4 provides a summary of the feedback.

**Table 4: Phase 2 Industry Workshop Feedback**

Phase 2 Industry Workshop Feedback	
1. Feedback on Proposed Adoption of Step 1 followed by Step 3	
<b>Step 1</b>	<ul style="list-style-type: none"> <li>• Support to adopt Step 1 now.</li> <li>• Good process to prepare for provincial/federal move to Net Zero by 2030/32.</li> <li>• Provides a learning opportunity for performance based approach with only soft costs.</li> </ul>
<b>Step 3</b>	<ul style="list-style-type: none"> <li>• General agreement to skip Step 2.</li> <li>• Many are building at this standard now.</li> <li>• Some concern regarding affordability and cost implications.</li> <li>• Mortgage lending incentives for more efficient homes available.</li> <li>• Longer process for Part 3 may require longer lead in time.</li> </ul>
<b>Beyond Step 3</b>	<ul style="list-style-type: none"> <li>• Value in laying out roadmap to 2030 beyond Step 3.</li> <li>• Unintended consequences for higher steps e.g. non-CA compliant products should be addressed/considered.</li> </ul>
<b>Compliance</b>	<ul style="list-style-type: none"> <li>• Standardization regionally and province wide seen as positive.</li> <li>• Ensure consistency with Building Officials Association of BC.</li> </ul>
<b>Training and Education</b>	<ul style="list-style-type: none"> <li>• Ensure EAs are accredited and quality assurance is included.</li> <li>• Need to communicate customer benefits – require mandatory building energy labelling.</li> <li>• Need to educate building owners and operators now there are more design options.</li> <li>• Need education to address misinformation in the media, particularly on costs.</li> <li>• Education of sub-trades needed, particularly around costs.</li> <li>• Guidance on completing a blower door test for Part 3 building required.</li> </ul>

## 2. Feedback on Timelines for Adoption – Step 1 November 2018, Step 3 January 2020

<b>Lead in Time from Step 1 to Step 3</b>	<ul style="list-style-type: none"> <li>• Mixed feedback on timeline between Step 1 and Step 3:             <ul style="list-style-type: none"> <li>◦ Some identified 14-18 months as too short given the planning application processing times, meaning limited projects could be completed in the Step 1 timeframe. Indicated that this may be insufficient time for builders that are unaccustomed to working with energy advisors or building efficiently to get up to speed. Some suggested an additional year or consideration for lenient grandfathering.</li> <li>◦ Others indicated the timeline was appropriate.</li> </ul> </li> </ul>
<b>Process</b>	<ul style="list-style-type: none"> <li>• Applies at Building Permit stage versus Rezoning or Development Permit – for some projects with a longer planning process (mainly part 3) may need to plan straight away for Step 3. May be design implications for Part 3. Some suggested grandfathering development permits.</li> <li>• Municipalities or province to confirm Energy Advisor availability to ensure process is not delayed.</li> <li>• Review and amend zoning bylaw, guidelines and policies to support adoption of Step Code.</li> <li>• Preference for consistency for Part 3 and Part 9 requirements given there is increasing mixed use.</li> </ul>

## 3. Feedback on the Proposed Application Process

<b>Process</b>	<ul style="list-style-type: none"> <li>• General support for the process and mid-construction blower door test</li> <li>• Desire that Step Code does not alter the processing timeline.</li> </ul>
<b>Compliance &amp; Liability</b>	<ul style="list-style-type: none"> <li>• Municipalities should require assurances that the modeling is based on plans submitted.</li> <li>• Municipalities or province should require mandatory building energy labelling – assists education and communicating benefits to the customer.</li> <li>• Municipalities or province should ensure EAs are accredited or part of professional association.</li> <li>• Agreement that part 3 professionals that sign letters of assurance as in current process addresses liability considerations.</li> </ul>
<b>Communication</b>	<ul style="list-style-type: none"> <li>• Need clear communication from municipalities around timelines and process.</li> </ul>
<b>Rebate</b>	<ul style="list-style-type: none"> <li>• General agreement that the rebate should be tied to energy advisor and mid-construction blower door test.</li> <li>• Suggested \$300 more appropriate.</li> <li>• Should be for Step 1 only – limited timeline.</li> <li>• Some comments that the rebate was too small an amount to make a meaningful difference, that it was a buried cost and paid for by taxpayer.</li> </ul>



## 4.2 Part 3 Meeting

The proposed approach included adoption of Step 3 by January 2020. Albeit this is a Lower Step for Part 9 development, it is considered an Upper Step for high rise, concrete and commercial Part 3 development. Given this, a focus group with Part 3 developers was coordinated by UDI and held at Victoria City Hall in an effort to ensure that audience had the opportunity to provide feedback on the proposed approach. Key feedback heard from this workshop included concerns regarding the technical feasibility, design implication (e.g. lower window to wall ratio) and cost implications of going to Step 3 within the proposed timeline. The timelines for this building typology were viewed as too ambitious, and it was suggested that design guidelines be updated to provide guidance with regard to acceptable sustainable design approaches.

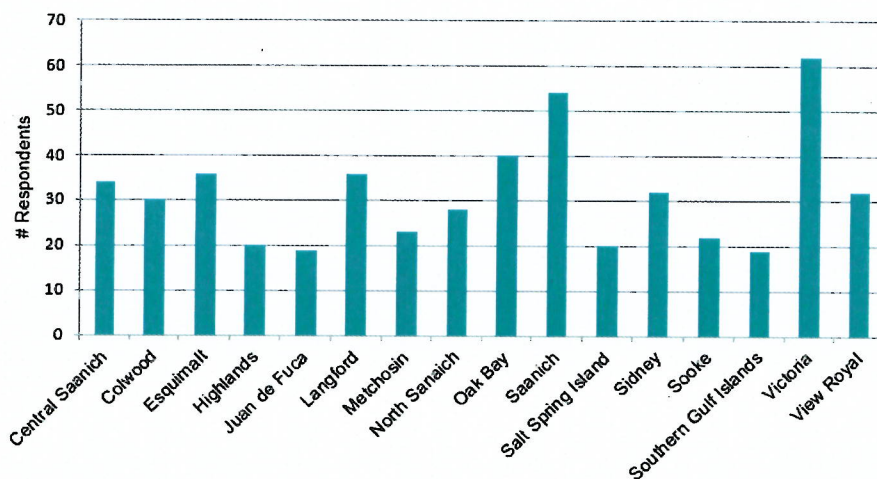
## 4.3 Survey Results

A survey was promoted to attendees that could be completed online or in hard copy. The survey included the same questions asked at the industry workshop and allowed for additional feedback from attendees as well as feedback from other industry members and key stakeholders who did not attend the workshops. The survey was open from February 21 until March 23, 2018 and was extended for one week to allow additional feedback from realtors due to the timing of the Victoria Real Estate Board newsletter.

### 4.3.1 Survey Responses

A total of 102 surveys were completed (online and paper). Majority of respondents were property owners/developers, general contractors, design professionals (i.e. architect, engineer), construction managers and/or residents throughout the region. Approximately half of the respondents that worked in the building industry built both Part 3 and Part 9 buildings with remaining respondents generally split between Part 3 and Part 9 development.

**Figure 1: Phase 2 Engagement Survey Respondent Work Locations**



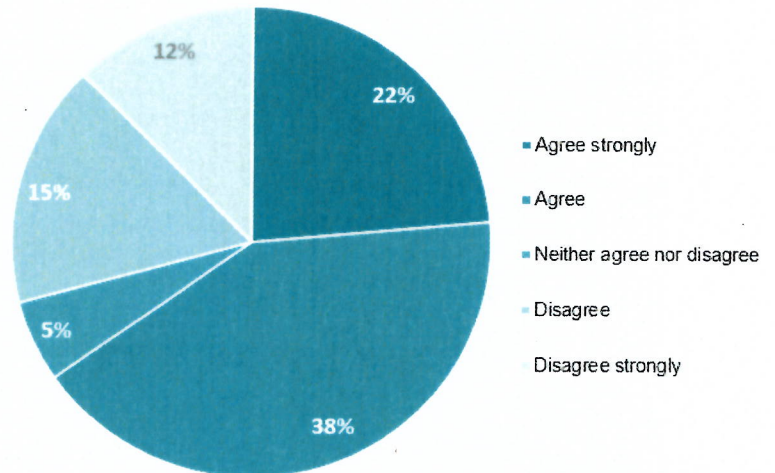
Majority of respondents worked in Victoria and Saanich, with good representation from those working within other regional municipalities (Figure 1).

### 4.3.2 Feedback on Proposed Approach

Figure 2 outlines that 60% (47 count) of respondents agree strongly or agree with the proposed approach to Step Code adoption, with 5% (4 count) neither agree nor disagree. The reasons provided for agreeing with the approach primarily related to the approach being reasonable and achievable, improved affordability, improved consumer protection, energy conservation, limited cost implications and development already achieving these Steps.

27% (21 count) of respondents disagree or disagree strongly with the proposed approach. 6% (5 of the 21 count) were not supportive because the approach was not deemed progressive enough and there was a desire to achieve higher steps sooner. Reasons for not supporting the proposed approach from the remaining 16 respondents included the timeframe between Step 1 and Step 3 being too short, concern about increased build costs and a desire to focus on the existing building stock as it was generally considered that new homes already meet higher standards.

**Figure 2: Support for Proposed Approach**



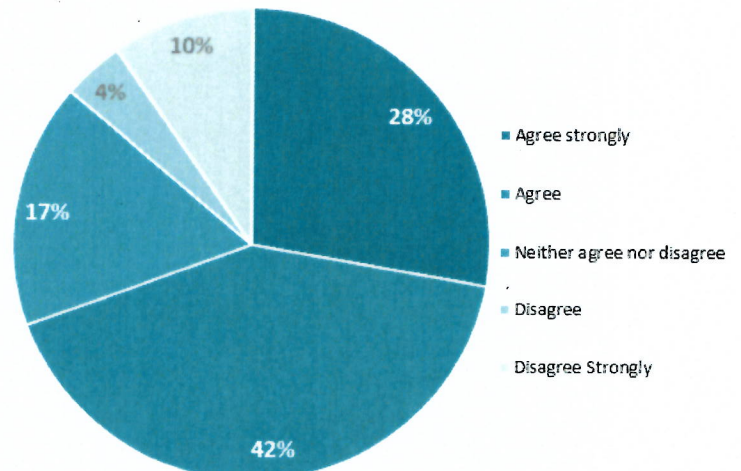
In the answer to this question and the question regarding any other feedback at the end of the survey, there was reference made to the number of requirements on the development industry such as Development Cost Charges (DCCs), new speculation tax and seismic regulations. It was noted by some that Step Code adoption would be an additional item and cost to consider.

### 4.3.3 Feedback on Lead-in Time to Step 1

70% (50 count) of respondents agree strongly or agree with the lead-in time for adoption of Step 1. 17% of respondents (12 count) neither agree nor disagree. Reasons for support primarily related to the fact that industry should or is already building to the base building code, minimal financial implications and improved consumer protection.

14% (10 count) of respondents disagree or strongly disagree with the lead-in time for adoption of Step 1. Reasons included Building Inspectors not being ready, the cost of

**Figure 3: Support for Lead-In Time before Adoption of Step 1**



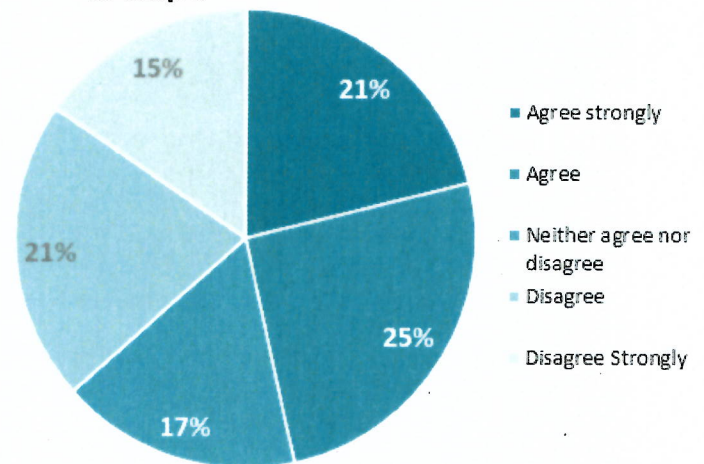


implementation, the time frame being too short and that there should be a focus on building retrofits instead of new construction. Other reasons included that Step 1 should be adopted sooner.

#### 4.3.4 Feedback on Lead-in Time to Step 3

46% (33 count) of respondents agree strongly or agree with the lead-in time for adoption of Step 3. 17% (12 count) neither agree nor disagree. Reasons for support included the lead-in time being considered a reasonable timeframe, that this Step is easily achieved with proper trades people and building techniques, industry are/should be aware and preparing now so the lead-in time is in reality longer than 14 months, and a consideration that builders will quickly learn to achieve Step 3 once they have adopted Step 1 and a performance based approach.

**Figure 4: Support for Lead-In Time before Adoption of Step 3**



36% (26 count) of respondents disagree or disagree strongly with the lead-in time before adoption of Step 3. 6% (4 count) of these respondents were not supportive due to a desire to advance to Step 3 more quickly. The remaining 22 respondents were not supportive due primarily to the lead-in time to Step 3 being too fast, impacts on build cost and affordability and a desire to progress one step at a time (moving to Step 2 before Step 3).

#### 4.3.5 Feedback on Building Permit Fee Structure/Rebate Program

While 49% (34 count) of respondents agree strongly or agree with the proposed building permit fee structure/ rebate program, 32% (23 count) of respondents disagree or strongly disagree with the proposed program.

Responses in support of the program included reference to rebates being a well-tested and successful market mechanism, that the program is reasonable but also should have a limited time frame with some feedback indicating that the rebate amount should be lower.

Reasons for disagreeing with the program were primarily related to the following:

- The value being insufficient to offset the costs of an energy advisor, blower door tests or the incremental increase in construction costs.
- The rebate ultimately being paid by the tax payer.
- A preference to incentivize other developments such as apartments, dedicated rental housing, affordable housing or specific high performing materials and components.
- A preference for alternative incentives such as faster processing time and density bonusing.

### 4.3.6 Feedback on the Application Process

Table 5 provides a summary of responses when asked for feedback or suggested ways of improving the application process for implementation of the Step Code.

**Table 5: Feedback on the Application Process**

Feedback on the Application Process	
<b>Feedback</b>	<ul style="list-style-type: none"> <li>• General agreement that the proposed Step Code process is aligned with the current planning and permitting process.</li> <li>• Mid Construction blower door test well supported, some feedback that it should be mandatory – some feedback that it should not be required once builders have done 2 or 3 projects or that it not be mandatory.</li> <li>• Concerns regarding existing capacity to handle the current level of construction. Adoption of the Step Code may further impact capacity for example due to the potential lack of energy advisors/modelers, limited skilled labour and learning curve for new process.</li> <li>• Ensure energy advisors are accredited or part of professional association.</li> <li>• Clarity is required on whether occupancy would be denied if there was any variation on actual performance and if there would be any leniency.</li> <li>• Regional consistency required – step adopted, timeline, process, forms and also precedents, exceptions, implementation.</li> </ul>
<b>Suggested Improvements</b>	<ul style="list-style-type: none"> <li>• Mandatory mid-construction blower door tests/energy performance tests.</li> <li>• Provide basic information to developers in the pre-application meetings/pre-application package for development and rezoning permits.</li> <li>• Provide an open database of FAQs, interpretations, precedents, exceptions that is consistent between municipalities.</li> <li>• Communicate the consumer benefits.</li> <li>• Mandatory home/building energy labelling.</li> <li>• Ensure the phase-in time considers the availability of energy advisors.</li> <li>• Municipalities could consider directly negotiating a price with energy advisors to enable volume purchasing.</li> </ul>

## 4.0 Next Steps

Phase 2 engagement feedback on the BC Energy Step Code will be shared with other local municipalities in the Capital Region. It will be used to inform a final option for Step Code implementation by some local municipalities to be presented to their councils in spring 2018.