

AGENDA
ENVIRONMENT AND NATURAL AREAS ADVISORY COMMITTEE
Wednesday, March 21, 2018, 5:30– 7:30 PM
Committee Room 2, Municipal Hall

1. **ADOPTION OF MINUTES** (attachment)
 - Adoption of February 21, 2018 minutes
2. **CADBORO BAY AND CORDOVA BAY LOCAL AREA PLAN UPDATES**
 - Presentation by the Local Area Planner
3. **PESTICIDE BYLAW UPDATE** (attachment)
 - Presentation by Manager of Environmental Services
4. **ENA AWARDS 2018**
 - Special Meeting
5. **BC ENERGY STEP CODE OVERVIEW**
 - Presentation by Manager of Sustainability (attachment)
 - Discussion of two articles submitted by R. Hesselgrave (attachment)
6. **UPDATES:**
 - Plastic Bag Model Bylaw
 - EDPA Public Hearing

* Adjournment *

* * Next Meeting: April 18, 2018 * *

Please email jeff.keays@saanich.ca or call at 475-1775 ext. 3430 if you are not able to attend.

**GO GREEN! MEMBERS ARE ENCOURAGED TO
BRING THEIR OWN MUG TO THE MEETING**

MINUTES
ENIRONMENTAL AND NATURAL AREAS ADVISORY COMMITTEE
Held at Saanich Municipal Hall, Committee Room #2
February 21, 2018 at 5:30 p.m.

Present: Chair: Councillor Leif Wergeland

Members: Kevin Brown, Jude Coates, Mary Haig-Brown, Roberta Hesselgrave, Ryan Senechal, Carmel Thomson; George Klima

Staff: Adriane Pollard, Manager Environmental Services; Jeff Keays, Committee Clerk

Regrets: Al-Nashir Charania

MINUTES

MOVED by R. Hesselgrave and seconded by M. Haig-Brown, "That the minutes of the Environmental and Natural Areas Advisory Committee meeting held January 17, 2017 be adopted as circulated."

CARRIED

STREAMSIDE DEVELOPMENT PERMIT AREA ATLAS HOUSEKEEPING AMENDMENTS

The Manager of Environmental Services gave a presentation on the recommended amendments to the Streamside Development Permit Area (SDPA) Atlas. The following highlights are noted:

- The SDPA process requires Streamside Development Permits to be issued to for development activities within 30 m of the high watermark for all identified streams.
- The Atlas is used to identify fisheries sensitive streams and specifies the Streamside Protection and Enhancement Area (SPEA), or riparian setbacks, required to ensure healthy and productive fish habitats.
- It is recognized that Atlas would need to be updated regularly; the last update was in 2015.
- Environmental Services staff visited the all of the affected properties, except for 174 Goward St. where staff were unable to contact the owners.
- Based on the field work and reports submitted to Saanich by Qualified Environmental Professionals, three (3) changes to SDPA Atlas for 2018.
- The affected watersheds are:
 - Bowker Creek
 - Goward Springs Creek and Wetland
 - Wary Creek
- QEP reports were commissioned by landowners, and are aware of that a report has been prepared for Council.
- Any additional affected properties were notified of the relevant proposed amendment.

Committee discussion followed the Manager of Environmental Services presentation. The following highlights are noted:

- The Province recognizes QEP's based on their membership (in good standing) within a professional organization.
- Province has a training program for The Riparian Areas Regulation
- The cost to retain a QEP varies
- If staff are asked to determine a setback there is approximately up to a 1 year wait.
- These reports do not take into account flooding i.e. a 100 year flood. They utilize only the visible high watermark/top of bank which may include some floodplain.
- Mitigation efforts for events such as a 100 year flood are done at the development approval stage.
- Wary Creek is being subdivided by owners. Trees on property are being covenanted as Natural State Areas as part of the development process.
- Detailed reports are available for view in the Planning Department.

MOTION

Moved by M. Haig-Brown and seconded by J. Coates "That the Environmental and Natural Area Advisory Committee endorse the recommended amendments to the Streamside Development Permit Area Atlas."

CARRIED

UPDATES

PLASTIC BAG UPDATE

The Manager of Environmental Services provided the committee with an update on the status of the Plastic Bag Model Bylaw. The following highlights are noted:

- The recommendation from the November 9, 2017 Planning, Transportation and Economic Development Advisory Committee meeting that Council obtain legal advice on banning single use plastic bags and setting minimum pricing for single use plastic bags was defeated
- Council noted that getting a legal opinion is not a good use of staff time while the courts are reviewing the matter.
- Case law will be established in the near future.
- The item has been added to the Council Referral Summary and could be reconsidered by Council once the courts have made a decision.

Committee discussion followed the update. The following highlights are noted.

- No time frame RE: Legal Review.
- Legal challenge highlights need for a uniform, regional bylaw.

ENA AWARDS

The Manager of Environmental Services provided the committee with an update on the status of the ENA Awards. The following highlights are noted:

- Committee will use the guidelines presented at the October 18, 2017 meeting.
- Nominations will open in March.
- It will remain a standing item on the agenda.

- Letter calling for nominations will be circulated to all community associations as well as SCAN.

WELLS AND GROUNDWATER WORKSHOP

The Manager of Environmental Services advised the committee that District will be hosting a Wells and Groundwater Conservation Workshop. An event poster was circulated to committee members. The following highlights are noted:

- The event will be on Wednesday, March 7, 2018 from 7:00-9:00PM at the Swan Lake Nature House.
- The event will include presentations from: The Ministry of Forests, Lands, Natural Resource Operations & Rural Development and Island Health.
- Additional partners in attendance will include the Capital Regional District's Septic Savy team, Maxxam Labs, a local well driller and a pump installer.

ADJOURNMENT

The meeting adjourned at 6:20PM

NEXT MEETING

Next meeting is scheduled for March 21, 2018.

Councillor Wergeland, Chair

I hereby certify these Minutes are accurate.

Committee Secretary

Memo

To: Environment and Natural Areas Committee
From: Adriane Pollard
Date: March 14, 2018
Subject: Proposed Update to the Pesticide Bylaw
File: 1130-20

PURPOSE

The purpose of this memo is to gain feedback from the Committee on proposed housekeeping amendments to the Pesticide Bylaw.

Background

Saanich Council adopted the Pesticide Bylaw in 2010 based on the Capital Regional District (CRD) Model Bylaw provided to municipalities. The Model Bylaw was based upon provincial enabling legislation (the Spheres of Concurrent Jurisdiction - Environment and Wildlife Regulation under the Community Charter) as well as the Precautionary Principle as recognized through case law. The Spheres of Concurrent Jurisdiction establishes the limited realm of municipal regulation of pesticide use.

In 2015, the provincial government amended the Integrated Pest Management Act (IPMA) after six years of consultation. The amendments came into effect on July 1, 2016. The amendments do not take precedence over Saanich's bylaw, however there are benefits in harmonizing our bylaw to be consistent regionally. In addition, there are a number of other housekeeping amendments that are recommended to improve the delivery of the bylaw.

Proposed Amendments - Provincial

The main changes to the IPMA stem from the recognition that residents should be able to apply certain pesticides themselves and that more pesticides be permitted for use.

The proposed amendments to the Pesticide Bylaw resulting from revisions to the provincial IPMA are:

- The addition of eight new pesticides to our Schedule A (which corresponds to the IPMA Schedule 2 - Excluded Pesticides) which are pesticides that are exempt from the requirements of the bylaw. Further, one pesticide (rotenone) has been removed from Schedule 2 and one (Btk) has been moved to Schedule 5 described below. One domestic and one commercial version of existing Excluded Pesticides have been added.

The pesticides to be added are:

- Corn cellulose
 - Formic acid
 - Kaolin,
 - Octenol,
 - Oxalic acid
 - Thymol,
 - Zinc strips,
 - Insect semiochemicals including kairomones, attractants and repellents.
- A new list pesticides (Schedule 5 of the IPMA - No Licence or Certificate Required for Certain Uses) that includes pesticides that residents can apply themselves without a Pesticide Permit. This is very similar to Schedule 2 (above) however the sale of these products is regulated by the province. This list includes iron-based products which are useful in controlling plants such as dandelions. The pesticides to be added are:
 - *Bacillus sphaericus*, also referred to as Bs
 - *Bacillus subtilis*
 - *Bacillus thuringiensis var. israelensis*, also referred to as Bti
 - *Bacillus thuringiensis var. kurstaki*, also referred to as Btk
 - Citric acid
 - Copper (oxychloride and tribasic only)
 - FeHEDTA
 - Ferric sodium EDTA
 - Garlic
 - Lactic acid
 - *Phoma macrostoma*
 - Pyriproxyfen
 - Sclerotinia minor
 - Sodium chloride
 - Spinosad

The IPMA has also changed in terms of point of sale interactions, licensing for the application of pesticides by commercial property owners, etc. These are not changes that affect the content or implementation of municipal bylaws.

Proposed Housekeeping Amendments - Municipal

After eight years of implementing the Pesticide Bylaw, additional housekeeping amendments which are proposed include:

- Adding a definition of 'serious economic loss';
- Adding a definition of 'Manager of Environmental Services' in order to include a delegate;
- Clarifying that an applicator of pesticides must be certified and follow the principles of Integrated Pest Management as stated in Appendix 1 of the bylaw;
- Expanding pesticide permit applications to be made for multiple properties either by an individual or party of property owners, or by the municipality; and
- Appending an updated format for the Pesticide Permit Application (Appendix 1).

Potential Future Amendments

In the future, if there is direction from Council and subsequent public engagement, some additional amendments stemming from the revised IPMA to consider are:

- Addressing pesticide use in the residential areas of institutional, commercial, and industrial properties;
- Increasing opportunities for residents to use glyphosate as per the updated IPMA; and
- Allowing residents to apply domestic products if they obtain a Residential Applicator Certificate as per the updated IPMA.

As pollinators have become recognized as essential to ecosystem health and food security, there is widespread concern about the use of pesticides that negatively impact them. The City of Vancouver has addressed the use of neonicotinoids, which are harmful to bees, in their Health Bylaw (which contains pesticide use regulations) that Saanich may wish to also consider.

Next Steps

- The Committee may wish to provide feedback on the proposed amendments at this time.
- There will be upcoming public engagement opportunities regarding the proposed amendments in which committee members are welcome to participate and give further feedback. The Committee will receive an invitation to the Open House via e-mail.
- Based on feedback received during this engagement process, a report for Council's review and consideration will be prepared. It is hoped that the proposed amendments will be considered in time for the upcoming growing season in order to provide opportunities to residents. Any comments from the Committee will be included in the report.
- If, as a result of public engagement, there are substantive changes to the proposed amendments, an update will be given to the Committee for further feedback.



Adriane Pollard, MCEM, MCIP, RPBio
Manager of Environmental Services

AP/gv

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cc: Sharon Hvozdzanski, Director of Planning

DISTRICT OF SAANICH

BC Energy Step FAQs

17 January 2018

Q. What is the BC Energy Step Code?

A. The Step Code is a voluntary roadmap that establishes progressive performance steps in energy efficiency for new buildings from the current BC Building Code level to net zero energy ready by 2032, aligning with commitments laid out in the BC Climate Leadership Plan. The Step Code would apply to new residential and commercial construction and does not currently apply to institutional buildings.

Net Zero Energy Ready Building:

A building built to high energy-efficiency standards such that it could (with additional measures) generate enough onsite energy to meet its own energy needs.

Q. Why do we need a Step Code?

A. The Step Code provides a consistent provincial standard for energy efficiency to replace the wide range of existing policies and programs unique to each local government. It supports consumer choice by taking a performance-based approach, allowing builders the flexibility to develop using all available technologies. It presents a considerable opportunity to make progress on our climate targets in addition to supporting building owner energy savings and affordability.

Q. What is a Performance Based Approach?

A. To date, most buildings have demonstrated compliance through a “prescriptive” approach, where buildings must meet specific requirements for insulation, windows, furnaces and other equipment and systems. This approach focuses on individual elements, rather than ensuring the building functions well as a system. A “performance” approach is already an option for complying with the energy efficiency requirements in the BC Building Code. It establishes a desired outcome, but allows flexibility for the developer to decide how that performance is achieved. It requires an energy model for the proposed building in addition to airtightness testing, where an energy advisor completes a blower door test after construction and before occupancy.

Q. What Steps are included?

A. The Step Code is organized into Lower and Upper Steps according to building types as shown in the figure below.



BC Energy Step FAQs

Step 1 only requires developments to be built to the base BC Building Code, but builders would be required to use a whole-building energy model and conduct an airtightness test (an indicator of a building's energy efficiency). Step 1 is intended to familiarize builders with a new way of measuring energy efficiency, albeit energy modelling programs and airtightness testing are methods already utilized by many members of the building industry.

To achieve the Lower Steps, building and design professionals and trades can rely on conventional building designs with careful air-sealing practices. To achieve the Upper Steps, builders and designers would need to adopt a more integrated approach to building design and may need to incorporate more substantial changes in building design, layout, framing techniques, system selection, and materials.

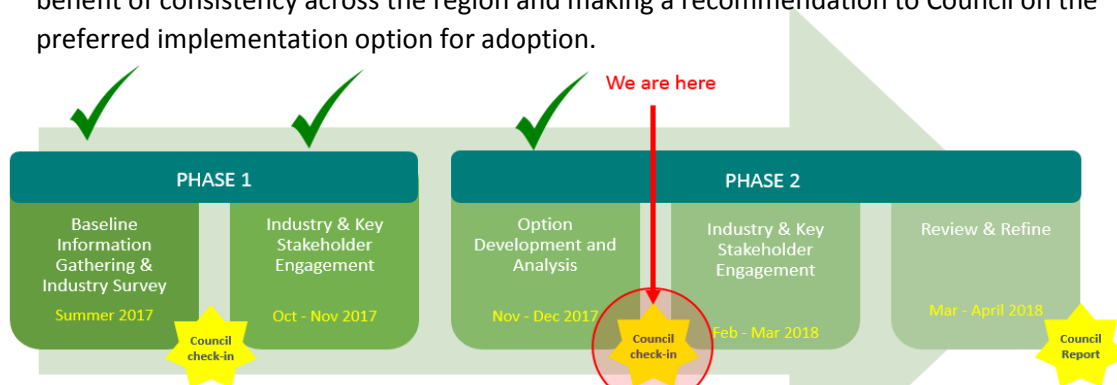
Q. What are the Local Government requirements?

A. As of December 15, 2017, Section 5 of the Building Act made bylaws that reference energy efficiency standards (e.g. Built Green Gold) no longer enforceable. Should local governments wish to negotiate or require building energy efficiency levels above that of the base building code, they may now reference the BC Energy Step Code. In considering Step Code implementation, local governments are encouraged by the Building Safety Standards Branch to review the Best Practice Implementation Guide, notify the province with their intent to engage industry on Step Code adoption and review readiness in their organization, communities and region to reference and implement the Step Code prior to taking action.

Q. How is Saanich engaging on Step Code adoption?

A. Saanich Council approved a two phased approach to engagement and development of options and recommendations for adoption of the Step Code:

- Phase 1 - Engage building industry and key stakeholders on the Step Code in collaboration with the Capital Regional District (CRD) and local municipalities. This includes providing information and raising awareness of the BC Energy Step Code and gathering feedback on the opportunities, concerns and potential approach for local implementation, including Step Level, timeline and support required, and;
- Phase 2 - Identify options for implementation that are appropriate to Saanich, cognizant of the benefit of consistency across the region and making a recommendation to Council on the preferred implementation option for adoption.



BC Energy Step FAQs

Q. What did we hear in the first phase of engagement?

A. Key findings from the first phase of industry engagement include:

- **Value in regional coordination** – for a consistent and coordinated approach to adoption.
- **Training and education** – is required and currently provided by BC Housing's Building Smart Program, Canadian Home Builders' Association and others.
- **Costs** – may be a potential barrier to adoption, primarily related to higher steps. The Step Code 2017 Metrics Research Study (costing study) represents the most comprehensive assessment of energy efficiency in buildings undertaken for a code update in Canada and vetted through industry. It outlines that Lower Steps can be achieved for less than a 2% premium above that of a home built to the requirements of the base BC Building Code for most archetypes. While the Upper Steps have higher incremental costs, Saanich is focused on adoption of the Lower Steps.
- **Affordability** – operational energy and cost savings were highlighted as key opportunities for home owners and building operators.
- **Conveying benefits to the market** - adoption of the Step Code provides added value, quality control, transparency for consumers, operational savings and other consumer benefits but support is required in communicating these benefits to the public, building users and realtors.
- **Steps, timelines and capacity** - importance of indicating a clear timeline for Step Code adoption to help industry prepare for change and ensure a smooth transition.

Q. What are other municipalities doing?

A. To date, 13 municipalities have provided a notification to the Province stating their intent to engage with industry on adoption of the Step Code. The City of Richmond held a two phase engagement process with industry and launched air barrier installation training alongside a rebate program for mid-construction air-tightness testing in summer 2017. They engaged industry on a recommended approach to adoption by city wide building bylaw in November 2017. The City of North Vancouver adopted the Step Code by city wide building bylaw and approved a rezoning policy for higher steps in December 2017. The City of Victoria has worked closely with the District of Saanich and our recommended options for engagement are aligned.

Q. How has staff analyzed Step Code implementation options?

A. Several options for implementation of the Step Code were developed based upon a review of Step Code resources, 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:

1. Industry Capacity and Readiness
2. Climate Action
3. Housing Affordability & Cost Implications
4. Regional Coordination

BC Energy Step FAQs

Q. What is the proposed option for the second phase of engagement?

A. Potential options for implementation of the Step Code were evaluated against the criteria outlined above, alongside feedback from the engagement events. The proposed option for endorsement by Council for further engagement is outlined below:

- a. For new Part 9 Buildings:
 - i. Building bylaw requiring all new Part 9 buildings to achieve Step 1 of the BC Energy Step Code as of November 1, 2018.
 - ii. Building bylaw requiring all new Part 9 buildings (excluding Small Single Family Dwellings less than 1,200 sq.ft.) to achieve Step 3 of the BC Energy Step Code by January 1, 2020.
 - iii. Building bylaw requiring all new Small Single Family Dwellings (less than 1,200 sq.ft.) to achieve Step 2 of the BC Energy Step Code as of January 1, 2020.
 - iv. Administration of a rebate program for Part 9 builders within the District of Saanich to provide funding support for the use of an energy advisor, to conduct a mid-construction blower-door test, and to conduct a post-construction verification blower-door test including the submission of a compliance report.
- b. For new Part 3 Buildings
 - i. Building bylaw requiring all new Part 3 buildings to achieve Step 1 of the BC Energy Step Code as of November 1, 2018.
 - ii. Building bylaw requiring all new Part 3 buildings to achieve Step 3 of the BC Energy Step Code as of January 1, 2020.

The proposed approach provides a balance between the evaluation criteria, is informed by a review of Step Code resources, feedback from the first phase of engagement and a review of implementation options from other BC Municipalities. The same approach is being presented to the City of Victoria Council in an effort to support regional coordination on this important issue.

Q. What are the next steps?

A. Staff are presenting the proposed approach in a report to Council on January 22, 2018. The purpose of the Council report is to:

1. Provide an update on the first phase of engagement on the BC Energy Step Code;
2. Outline a draft approach for implementation of the BC Energy Step Code that has been informed by feedback from the first phase of engagement; and
3. Seek Council endorsement to further consult with members of the development community and key stakeholders on this proposed draft approach to Step Code implementation.

The recommended approach would be refined based upon industry and stakeholder feedback and a final recommended option for implementation of the Step Code would be presented to Council in spring 2018 for review and consideration.

For more information on the BC Energy Step Code, please visit Province of BC's Building Safety and Standards Branch website or www.energystepcode.ca.



The Corporation of the District of Saanich

Report

To: Mayor and Council
From: Sharon Hvozdzanski, Director of Planning
Date: January 12, 2018
Subject: BC Energy Step Code: Update and Recommended Option for Phase 2 Engagement
File: 2560-40

Council
 Administrator
 Media

Mayor
 Councillors
 Administrator

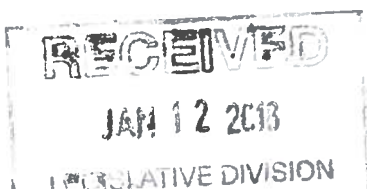
RECOMMENDATION

1. That Council receive the BC Energy Step Code: Engagement – Industry Workshop Summary for information; and
2. That Council direct staff to engage with development industry and key stakeholders on the following proposed approach to implementation of the BC Energy Step Code:
 - a. For new Part 9 Buildings:
 - i. Building bylaw requiring all new Part 9 buildings to achieve Step 1 of the BC Energy Step Code as of November 1, 2018.
 - ii. Building bylaw requiring all new Part 9 buildings (excluding Small Single Family Dwellings less than 1,200 sq.ft.) to achieve Step 3 of the BC Energy Step Code as of January 1, 2020.
 - iii. Building bylaw requiring all new Small Single Family Dwellings (less than 1,200 sq.ft.) to achieve Step 2 of the BC Energy Step Code as of January 1, 2020.
 - iv. Administration of a rebate program for Part 9 builders within the District of Saanich to provide funding support for the use of an energy advisor, to conduct a mid-construction blower-door test, and to conduct a post-construction verification blower-door test including the submission of a compliance report.
 - b. For new Part 3 Buildings
 - i. Building bylaw requiring all new Part 3 buildings to achieve Step 1 of the BC Energy Step Code as of November 1, 2018.
 - ii. Building bylaw requiring all new Part 3 buildings to achieve Step 3 of the BC Energy Step Code as of January 1, 2020.

PURPOSE

The purpose of this report is to:

1. Provide an update on the first phase of engagement on the BC Energy Step Code;
2. Outline a draft approach for implementation of the BC Energy Step Code that has been informed by feedback from the first phase of engagement. This approach proposes adoption of Step 1 by building bylaw for all new Part 9 and Part 3 buildings as of



November 1, 2018, followed by Step 3 as of January 1, 2020 (Step 2 for small single family dwellings), alongside a rebate program for Part 9 builders; and

3. Seek Council endorsement to further consult with members of the development community and key stakeholders on this proposed draft approach to Step Code implementation.

DISCUSSION

Background

At the September 11, 2017 Council meeting, Council endorsed the following motion:

“That Council:

1. Endorse the BC Energy Step Code: Options for Implementation – Terms of Reference; and
2. Allocate \$25,000 from the Council Contingency for Strategic Initiatives for the BC Energy Step Code study.”

The endorsed Terms of Reference outlined an approach to engagement and development of options and recommendations for adoption of the BC Energy Step Code (see Attachment 1). The entire process includes two phases, as outlined below. We have completed Phase 1 and have just commenced Phase 2. Per the endorsed Terms of Reference, we are checking in with Council prior to undertaking the next round of engagement.

Phase 1: Engaging the building industry and key stakeholders on the BC Energy Step Code in collaboration with the Capital Regional District (CRD) and local municipalities. This includes providing information and raising awareness of the BC Energy Step Code and gathering feedback on the opportunities, concerns and potential approach for local implementation, including Step Level, timeline and support required; and

Phase 2: Identifying options for implementation of the BC Energy Step Code that are appropriate to Saanich, cognizant of the benefit of consistency across the region and making a recommendation to Council on the preferred implementation option for adoption.

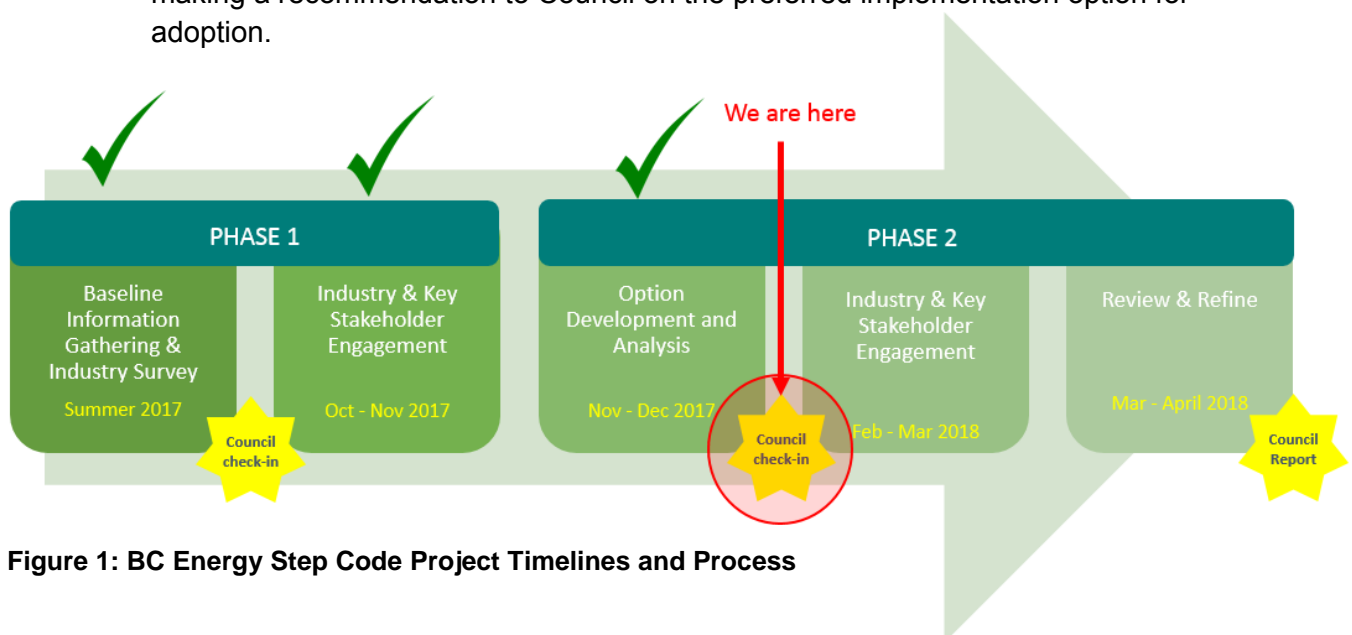


Figure 1: BC Energy Step Code Project Timelines and Process

As part of Phase 1 staff received considerable input from the development industry on the opportunities, concerns and potential approach for local implementation. This has been used, alongside a review of Step Code resources and implementation options from other BC Municipalities to develop a proposed draft approach for implementation of the Step Code that is appropriate to Saanich. In summary, this approach proposes adoption of Step 1 by building bylaw for all new Part 9 and Part 3 buildings as of November 1, 2018, followed by Step 3 as of January 1, 2020 (Step 2 for small single family dwellings), alongside a rebate program for Part 9 builders.

We are now in Phase 2 of the project and seeking Council endorsement to use the proposed approach for Step Code implementation as a basis for the second phase of engagement. The proposed approach is consistent with that being proposed by the City of Victoria in order to address industry feedback regarding the value of regional coordination.

BC Energy Step Code

The BC Energy Step Code is a voluntary roadmap that 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, aligning with commitments and targets laid out in the BC Climate Leadership Plan. It was developed through wide-ranging stakeholder consensus over a two year period through a series of working groups and committees convened by the Province's Building and Safety Standards Branch. The Step Code applies to new residential and commercial construction and does not currently apply to institutional buildings such as universities, hospitals, recreation centres, and aquatic centres.

Energy efficiency became a requirement in the BC Building Code in 2008 with an option to take either prescriptive or performance approaches to code compliance. To date, the vast majority of buildings have demonstrated compliance through a "prescriptive" approach – where buildings must meet specific requirements for insulation, windows, furnaces, water heaters, lighting, and other equipment and systems. This approach focuses on individual elements, rather than ensuring the building functions well as a system.

A "performance" approach is already an option for complying with the energy efficiency requirements in the BC Building Code. This approach establishes a desired outcome, but allows flexibility for the design and building team to decide how that performance is achieved.

Step 1 only requires developments to be built to the base BC Building Code, but builders would be required to use a whole-building energy model and conduct an airtightness test (an indicator of a building's energy efficiency). Step 1 is intended to familiarize builders with a new way of measuring energy efficiency, albeit energy modelling programs and airtightness testing are methods already utilized by many members of the building industry.

The Step Code is organized into Lower and Upper Steps according to building types (see Figure 2).



Figure 2: Definition of Lower and Upper Steps by Building Type

To achieve the Lower Steps, building and design professionals and trades can rely on conventional building designs with careful air-sealing practices. They should engage an energy modeller early to select the most cost effective way to meet the performance requirements.

To achieve the Upper Steps, builders and designers would need to adopt a more integrated approach to building design and may need to incorporate more substantial changes in building design, layout, framing techniques, system selection, and materials. These associated techniques and materials may be more costly and/or challenging without additional training and experience. It is anticipated that there would be innovation(s) in the future that would make it easier and more cost effective to achieve the Upper Steps.

Buildings represent approximately 30% of our community GHG emissions. New buildings developed in the coming years, will for the most part, still exist and be contributing to our community GHG emissions inventory in 2050. As such, implementing the Step Code presents a considerable opportunity for the District of Saanich to make progress on our commitment to becoming a 100% Renewable Energy Community and reducing our community GHG emissions by 80% by 2050 (from 2007 levels).

Phase 1 Step Code Engagement

Process

The Step Code was developed through wide-ranging stakeholder consensus including representation from the Urban Development Institute (UDI), the Greater Vancouver Home Builders Association (GVHBA), and the Canadian Home Builders Association (CHBA). There are several training opportunities on the Step Code including Energy Step Code Council (ESCC) webinars and resources, industry lunch and learns, conference presentations and Canadian Home Builders' Association of BC Certified Energy Advisor Training, amongst others.

An Inter-Municipal Working Group has been convened by the CRD to help develop a program of engagement on options for adoption of the Step Code locally. District of Saanich staff have worked closely with the CRD, the City of Victoria, other local municipalities, UDI (Capital Region) and CHBA (Vancouver Island) to plan and deliver this engagement with funding support from BC Hydro. Regional and district events associated with Phase 1 of the engagement are outlined in Table 1.

Table 1: BC Energy Step Code Phase 1 Engagement Events in the Capital Region

Event	Date	# Attendees	Purpose
Capital Region Building Industry Survey	Aug 11 – Sep 15, 2017	57	To determine local awareness and preparedness and to inform workshop engagement.
CRD Housing Action Team (HAT) Presentation	Oct 30, 2017	Approx. 20	Presentation on the Step Code engagement process followed by questions and discussion.
Building Industry Workshop #1	Nov 1, 2017	90	Provide information and raise awareness of Step Code and gain industry feedback on opportunities and approach for local implementation, including Step, timeline and support.
Building Industry Workshop #1 Follow Up Survey	Nov 1 – Nov 27, 2017	13	
Building Inspectors Working Session	Nov 3, 2017	41	Understanding energy modelling and air tightness testing, the Energy Advisors role, reporting and compliance.
Saanich Step Code Working Group Workshop - Planning, Inspections and Sustainability staff	Nov 8, 2017	11	Reviewed summary of industry feedback, best practice and ESSC resources – used to review evaluation criteria, analyse adoption options, implementation process, supporting programs and communications.
Local Government Elected Official & Executive Staff Step Code Presentation & Building Tour	Nov 10, 2017	25	ESSC presentations, results of CRD Builder Industry Survey, tour of energy efficient buildings equivalent to different Step Code levels and Q&A with developers.
BC Housing Building Smart Series: Lower Steps	Nov 16, 2017	87	Province-wide training series to support building industry/officials in meeting requirements for Lower Steps. Presentation on local engagement.
Local Government Staff Step Code Policy Workshop	Nov 30, 2017	31	Overview of Step Code, results of Building Industry Survey and Workshop, table discussions on implementation, opportunities, gaps and next steps.
Realtor Workshop: “Selling Energy Efficiency”	Dec 8, 2017	32	In-classroom tour of retrofit homes, informational toolkit.
Energy Literacy Communications	ongoing	N/A	Regional Case studies showcasing projects built to equivalent Steps in the

Event	Date	# Attendees	Purpose
Tools & Case Studies			Step Code. Backgrounder on Step Code, energy efficiency technologies, costing, energy modelling and other considerations for public and industry.

Feedback

The Phase 1 Engagement events 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; and
- Which steps are achievable today and into the future.

The BC Energy Step Code: Engagement – Industry Workshop Summary (see Attachment 2) provides a detailed overview of industry feedback. Key findings from the industry workshop, building inspectors workshop and other local government staff feedback are summarised in Table 2 below.

Table 2: BC Energy Step Code Phase 1 Engagement - Feedback Summary

Topic	Key Feedback	Support
Value in Regional Coordination	Value in a consistent and coordinated approach to adoption across the region – including steps, timing, process, support and compliance.	Saanich, City of Victoria, CRD and other local government staff have worked closely to develop a proposed option for adoption that can be aligned regionally. Building inspectors have met to discuss a consistent implementation process.
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.	Training is provided by BC Housing's Building Smart Program, Canadian Home Builders' Association and others. The District can support training through rebate programs for energy modelling and air tightness testing that enable learning 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. The Victoria Residential Builders Association (VRBA) has clearly indicated concern regarding additional costs – it was not clarified if this is related to Higher Steps.	The BC Energy Step Code 2017 Metrics Research Study (costing study) represents the most comprehensive assessment of energy efficiency in buildings undertaken for a code update in Canada. It is based on data generated by builders from across BC and vetted through industry, including home builders' associations and UDI. The Study shows that meeting the requirements of Lower Steps involves only modest construction cost premiums. Lower Steps can be achieved for less than a 2% premium above that of a home built to the requirements of the base BC Building Code for most archetypes. While the Upper Steps have

Topic	Key Feedback	Support
	Operational energy and cost savings and affordability were highlighted as key opportunities for home owners and building operators with adoption of the Step Code.	higher incremental costs, the District is focused on adoption of the Lower Steps. Operational savings were not addressed as part of the costing study.
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.	The CRD has initiated work through development of energy literacy communications tools and realtor workshops. Saanich staff support multiple building energy efficiency programs which involve communication with the public on the value of building energy efficiency. Saanich is currently developing a home energy labelling pilot in collaboration with other BC municipalities and BC Hydro funding support.
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 with a mix of support for Steps 1, 2 and 3 – indicated Steps 1 and 2 are current practice. Some support for Higher Steps.	The proposed approach outlined in this report includes clear timelines for Step Code adoption with consideration given to lead-in time between steps to allow for the market to prepare e.g. providing direction to the market regarding the increased demand for energy advisors. Adoption of Lower Steps and considerable lead in time allows for the use of existing technologies, limiting impacts such as product availability or concerns regarding ensuring new technology is proven. Supporting information on process and timelines included as part of planning applications and building permits would be prepared to support industry.

In addition to the feedback described above, several building industry organizations, home builders associations and advocacy groups have declared support for, or concern regarding the Step Code:

- Canadian Home Builders' Association (CHBA), Vancouver Island – in support of the regional engagement process and co-hosted the industry workshop. Letter of support for adoption of the Step Code to Mayor and Council (Attachment 3). Not advocating for adoption of a specific Step.
- Three for All advocacy group – consists of the Canada Green Building Council, Integral Group, the Open Green Building Society, Passive House Canada, the Pembina Institute and Recollective Consulting. The group advocates for adoption of Step 3 for all projects.
- Urban Development Institute, Capital Region – in support of the regional engagement process and co-hosted the industry workshop. Not advocating for adoption of a specific Step.

- Victoria Residential Builders Association (VRBA) – an initial letter to Mayor and Council on May 3, 2017 outlined concerns primarily related to costs and recommended Step (Tier) 2 (Attachment 4). The VRBA were invited to collaborate in planning and co-hosting the industry engagement events alongside UDI and CHBA, but declined. A following email (Attachment 5) to the CRD Chair and Board on September 14, 2017 and copied to Mayor and Council outlined concerns regarding the BC Building Code's mandate and effectiveness as a tool to address climate change and indicated that if the Step Code were introduced, it should be at a lower Tier (Step 1 or 2) with incremental increases in the code every 5 years. A final letter to the CRD Chair and Board on November 2, 2017 and copied to Mayor and Council reiterated the above concerns alongside training and education and indicated that the VRBA no longer supported adoption of the Step Code (Attachment 6).

Approach to Step Code in other BC Communities

As of the time of writing, the following municipalities have provided notification to the Province stating their intent to engage with industry on how best to implement the Step Code:

- City of Richmond
- City of North Vancouver
- City of Campbell River
- City of Duncan
- District of North Vancouver
- City of Victoria
- District of Saanich
- Comox Valley Regional District
- District of North Saanich
- Resort Municipality of Whistler
- District of West Vancouver
- City of Surrey
- City of New Westminster

On December 15, 2017 the City of North Vancouver adopted the Step Code by a city-wide building bylaw, and approved a rezoning policy for Higher Steps as outlined in Table 3 below.

Table 3: City of North Vancouver Step Code Adoption December 15, 2017

Building Type	December 2017 Building Bylaw	January 2018 Rezoning Policy (Part 3 Buildings)	July 2018 Building Bylaw
Small Part 9 residential buildings (under 1,200sq.ft.)	BC building code only	N/A	Step 1 (of 5)
Part 9 residential buildings (over 1,200 sq.ft.)	Step 2 (of 5)	N/A	Step 3 (of 5)
Part 9 commercial buildings	BC Building code only	N/A	BC building Code only
Part 3 residential buildings	Step 1 (of 4)	Step 3 (of 4)	Step 2 (of 4)
Part 3 commercial buildings	Step 1 (of 3)	Step 2 (of 3)	Step 1 (of 3)

In addition, in certain area(s) of the City of North Vancouver, builders will also be required to achieve either the highest step of the Energy Step Code (Passive House design) or the second highest step of the Step Code, plus additional noise mitigation measures.

The City of Richmond engaged industry in November 2017 on a recommended approach to Step Code adoption by city-wide building bylaw as outlined in Table 4.

Table 4: City of Richmond Step Code Adoption Options for Engagement November, 2017

Building Type	Spring 2018	January 2020	January 2022	January 2025
Part 9 detached homes & duplexes	Step 1 (of 5)	Step 3 (of 5)	Step 3 or 4 (of 5)	Step 4 (of 5)
Part 9 townhouses & low-rise apartments	Step 3 (of 5)	Step 3 (of 5)	Step 4 (of 5)	Step 5 (of 5)
Part 3 wood frame and concrete apartments	Step 3 (of 4)	-	-	-
Part 3 office and retail	Step 2 (of 3)	-	-	-

Several other municipalities are currently engaging industry and developing options for adoption by Council in 2018.

The District of Saanich has worked closely with the City of Victoria in industry engagement and analysis of options for adoption of the Step Code. The recommendations in this report align with those due to be taken to the City of Victoria Council in January 2018.

OPTION DEVELOPMENT AND ANALYSIS

There are several approaches a local government may take and a variety of tools available for implementing the Step Code. These range from the approval of a Building Bylaw requiring a minimum step to be adopted city-wide, to the use of incentives for developers to achieve Higher Steps above that minimum level (see Figure 3). In addition, there are also tools that raise general awareness and support as well as remove barriers to adoption.

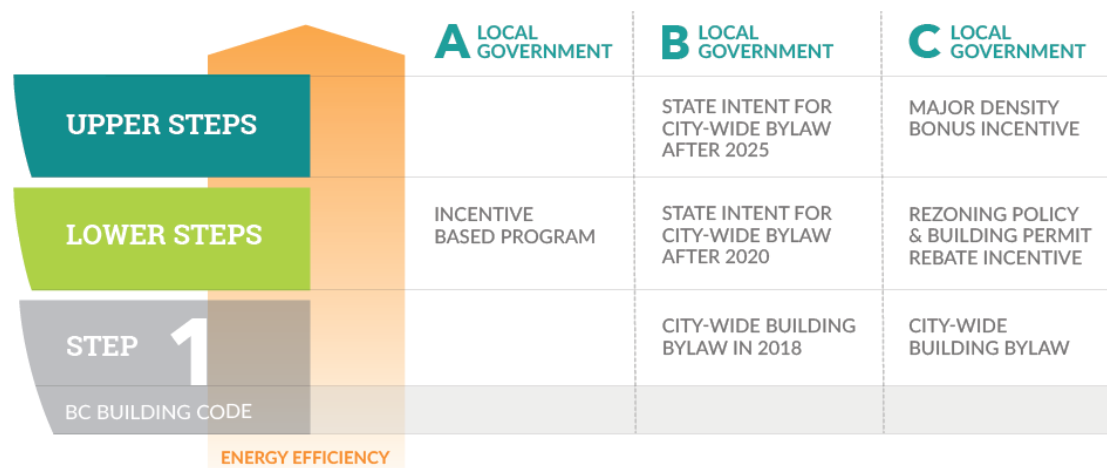


Figure 3: Potential Approaches and Options for Step Code Implementation

Step Code Implementation

Several approaches to implement the Step Code were considered 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. Table 5 outlines the approaches and associated actions appropriate to the District of Saanich.

Table 5: District of Saanich Actions to support Adoption of the BC Energy Step Code

Approach	Tool	Action
Mandate requirements	Building Bylaw	Outlining the Step(s) to be achieved across the community by a set date(s).
	Compliance Report	Adoption of a standardized compliance report and development of a process flow diagram.
Incentives	Energy advisor and air tightness testing rebate program	Application to the BC Hydro grant to aid in provision of a rebate program to support Saanich developers in sourcing an energy advisor and completing mid and post construction air tightness testing.
Remove Barriers	Floor Space Ratios (RSRs)	Adjust FSR calculation method to ensure thicker walls with more insulation are not penalized, by basing calculations on the habitable floor area (interior face of exterior walls).
	Building Bylaws	Review the Building Bylaw to remove any procedures that unintentionally inhibit the BC Energy Step Code (e.g., procedures for compliance with prescriptive requirements)
	Design Guidelines	Review to ensure guidelines do not unintentionally make Upper Steps more costly or unachievable (e.g. by encouraging building forms that are inherently energy inefficient). Align design guidelines with best practices in energy efficient design.
General Awareness and Support	OCP, Local Area Plans & Corridor Plans/Studies	Amendments to existing policy and/or additional policy statements about BC Energy Step Code to provide a clear signal to the community and industry that energy efficiency in buildings is important.
	Updated Climate Action Plan	BC Energy Step code is included as an action and considered in energy modelling to achieve the 2050 climate targets in developing the updated Climate Plan.
	Training	Training for staff and rebate program will support industry on this front. Include reference to regional training events on website etc.
	Home Energy Labelling and Realtor Support	Support CRD in education programs for community and realtor industry alongside development of a pilot home energy labelling program.
	Others	Provide learning forums and tools to support awareness of the Step Code and building energy efficiency in the community including, but not limited to, the Saanich website, front counter information, Planning Application Package, Sustainability Checklist etc.

Feedback from industry indicated a desire to look at other/additional approaches for incentivizing or mandating Step Code requirements, including:

- Fast-tracking of planning applications or building permits through the planning process;
- Building Permit Rebate programs;
- Zoning bylaws and policies; and
- Density bonus.

These other/additional approaches were reviewed by staff and were considered inappropriate for use in adoption of the Step Code due to being unfeasible, less effective or undesirable, for example due to the resulting competition with priorities other than energy efficiency (e.g. affordable housing contributions).

Implementation Options - Evaluation Criteria

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, the constraints outlined above 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. The evaluation criteria are outlined below:

1. Industry Capacity and Readiness

- Clear expectations regarding Step(s) required and timeline are provided and allow time to plan and execute to the required levels of performance.
- Projects are able to be delivered at the proposed Step(s) and timelines.
- Risk of non-compliance with the adopted Step(s) is minimized.

2. Climate Action

- Proposed Step(s) align with the District's climate action targets.

3. Housing Affordability & Cost Implications

- Costs associated with each Step are acknowledged and potential impacts to housing affordability are considered and minimized.
- Potential operational cost-savings resulting from energy efficiency are considered and communicated.

4. Regional Coordination

- Coordination across municipal boundaries within the region relating to the Step(s), timeline, process and messaging is addressed.

These criteria were used to evaluate the potential options for implementation of the Step Code, alongside feedback from the engagement events.

Implementation Options - Part 9 Buildings

Part 9 buildings are three storeys or less and have a building area no more than 600 square metres. These include single family homes, duplexes, townhomes, and small apartment buildings. In 2017, the District of Saanich had approximately 190 Part 9 residential building permits, primarily single-family dwellings (SFD) and duplexes with only 4 townhouses. Table 6 below provides an overview of the options for Part 9 buildings and their analysis against the evaluation criteria.

Table 6: Part 9 Options Analysis for Local Step Code Adoption

Option (adopted by Building Bylaw)		Evaluation Criteria			
		Industry Capacity and Readiness	Climate Action	Housing Affordability & Costs*	Regional Coordination
1	Step 1 – ALL Nov 2018 Step 3 Jan 2020 – ALL except Small SFD (Step 2)	Provides ample notice and direction to the market to support supply of local energy advisors and training to achieve Step 3. Industry representatives indicate ‘Step 3 is achievable.’ Minimizes risk of non-compliance for first year.	Step 3 is achieved in short term = 20% lower energy consumption than base building code. No direction to market regarding adoption of Higher Steps.	Very low cost implications for Step 1 (0.2%) and Step 3 (0.8%) for large and medium SFD. Low cost implications for Small SFD for Step 2 (2.4%) versus Step 3 (4.7%) Supports some operational savings and affordability.	Potential for coordination with City of Victoria. Adoption of Step 1 at the outset may encourage other local municipalities to also adopt this option.
2	Step 2 Nov 2018 Step 3 Jan 2020	Provides ample notice and direction to the market to support supply of local energy advisors and training to achieve Step 3. Industry representatives indicate ‘Step 3 is achievable.’ Requires compliance at the outset of adoption. Some risk of non-compliance at Step 2.	Step 3 is achieved in short term = 20% lower energy consumption than base building code. No direction to market regarding adoption of Higher Steps.	Very low cost implications for Step 2 (0.2%) and Step 3 (0.8%) for large and medium SFD. (4.7% for Step 3 for Small SFD) Supports operational savings and affordability.	Potential for coordination with City of Victoria. Adoption of Step 2 at the outset may discourage other local municipalities from adopting.

Option (adopted by Building Bylaw)		Evaluation Criteria			
		Industry Capacity and Readiness	Climate Action	Housing Affordability & Costs*	Regional Coordination
3	Step 3 Nov 2018 Step 4 Jan 2024	Provides clarity and direction to the market for future higher step adoption (2024). However, less lead-in time to Step 3 may result in a higher risk of non-compliance. Additional training support likely required.	Step 3 is achieved at the outset = 20% lower energy consumption than base building code. Direction to market regarding adoption of Higher Steps – Step 4 = 40% lower energy consumption.	Low cost implications for Step 3 (0.8%) and Step 4 (1.8%) for large and medium SFD. However, cost implications for small SFD are higher (4.7% for Step 3 and 7.5% for Step 4). Higher operational savings and affordability.	Potential for coordination with City of Victoria. Unlikely coordination with other local municipalities.

* % cost implications are the lowest incremental capital costs for different building archetypes for our climate zone cited within the BC Energy Step Code 2017 Metrics Research Summary Report.

It should be noted that the proposed November 2018 implementation date assumes that Council adopt a final recommendation following the second phase of public engagement by April/May 2017, allowing a 6 month lead in-time prior to implementation. All permit applications on that date or later would be required to comply with Step 1 requirements. Any building permit applications received before this date would be allowed to comply with the prescriptive requirements of the BC Building Code.

Recommendation

It is recommended that Option 1 be used as a basis for engaging industry and key stakeholders in a second phase of engagement on options for implementation of the Step Code for new Part 9 Buildings. This would include:

- Building bylaw requiring all new Part 9 buildings to achieve Step 1 of the BC Energy Step Code as of November 1, 2018;
- Building bylaw requiring all new Part 9 buildings (excluding Small Single Family Dwellings less than 1,200 sq.ft.) to achieve Step 3 of the BC Energy Step Code as of January 1, 2020;
- Building bylaw requiring all new Small Single Family Dwellings (less than 1,200 sq.ft.) to achieve Step 2 of the BC Energy Step Code as of January 1, 2020; and
- Administration of a rebate program for Part 9 builders within the District of Saanich to provide funding support for the use of an energy advisor, to conduct a mid-construction blower-door test and to conduct a post-construction verification blower-door test including the submission of a compliance report.

Rationale

Option 3 in Table 6 provides a greater level of energy efficiency at the outset and also provides the market with clear direction as to when Higher Steps would be required (Step 4 by 2024).

Given this, Option 3 provides greater support for Saanich Climate Action targets, greater operational savings and affordability for the home owners and only limited lowest incremental capital cost increases (excluding small Single Family Dwellings). However, both Option 3 and Option 2 require compliance at the outset and may result in a higher risk of non-compliance.

Alternatively, Option 1 provides industry with over a year at Step 1 following the 6 month lead-in time to adoption. Step 1 does not penalize non-compliance and only requires industry to build to the current base building code. It will allow considerable time for industry to become accustomed to the Step Code process; using an energy advisor, completing blower door tests and undertaking any required training in preparation for requiring Step 3. Following this, Step 3 provides a minimum 20% improvement in energy performance over current building code at less than a 1% construction cost premium. Small SFDs will only be required to meet Step 2 due to the slightly higher cost implications.

To further support adoption of the Step Code for smaller homebuilders with limited experience of energy modelling and air tightness testing and to address industry feedback, staff propose administering a rebate program for all Part 9 builders with an active planning or building permit application in Saanich going through the performance based approach to achieving Step Code for the first time. The rebate would provide funding support for hiring a certified energy advisor, conducting a mid-construction blower door test and conducting a final, post-construction blower door test. The amount and structure of this rebate program will be developed with input from the second phase of engagement. BC Hydro has announced a funding offer of up to \$20,000 to assist eligible communities who have adopted the Step Code in providing a rebate program as described above.

Implementation Options - Part 3 Buildings

Part 3 buildings are four storeys and taller and greater than 600 square metres in building area. They include larger apartment buildings, condos and office buildings. Part 3 buildings also include institutional buildings such as universities, schools, civic facilities, and hospitals, although at this time, the Step Code applies only to residential and commercial occupancies. In 2017, the District of Saanich approved approximately 15 Part 3 building permits. Table 7 below provides an overview of the options for Part 3 buildings and their analysis against the evaluation criteria.

Table 7: Part 3 Options Analysis for Local Step Code Adoption

Option (adopted by Building Bylaw)		Evaluation Criteria			
		Industry Capacity and Readiness	Climate Action	Housing Affordability & Costs*	Regional Coordination
1	Step 1 Nov 2018 Step 3 Jan 2020	Provides ample notice and direction to the market to achieve Step 3. Many projects are built to this level today (particularly mid-rise and office), and the use of energy models is common. Potential design implications for high-rise concrete. Minimizes risk of non-compliance for first year.	Step 3 is achieved in short term = 20-30% lower energy consumption than base building code.	Low cost implications for Step 3 (0.8% for high-rise; 0.6% for low-rise; 0.0% for commercial office). Supports operational savings and affordability.	Potential for coordination with City of Victoria. Adoption of Step 1 at the outset may encourage other local municipalities to also adopt this option.
2	Step 2 Nov 2018 Step 3 Jan 2020	Provides ample notice and direction to the market to achieve Step 3. Many projects are built to this level today (particularly mid-rise and office), and use of energy model is common. Requires compliance at the outset of adoption. Some risk of non-compliance at Step 2.	Step 3 is achieved in short term = 20-30% lower energy consumption than base building code.	Low cost implications for Step 2 (0.4% for high-rise; 0.5% for low-rise; -0.2% for commercial office) and Step 3 (as noted in Option 1) Supports operational savings and affordability.	Potential for coordination with City of Victoria. Adoption of Step 2 at the outset may discourage other local municipalities from adopting.

* % cost implications are the lowest incremental capital costs for different building archetypes for our climate zone outlined cited within the BC Energy Step Code 2017 Metrics Research Summary Report.

Recommendation

It is recommended that Option 1 be used as a basis for engaging industry and key stakeholders in a second phase of engagement on options for adoption of the Step Code for new Part 3 Buildings. This would include:

- Building bylaw requiring all new Part 3 buildings to achieve Step 1 as of November 1, 2018; and
- Building bylaw requiring all new Part 3 buildings to achieve Step 3 as of January 1, 2020.

Rationale

Option 1 in Table 7 presents an approach that achieves the best balance between the criteria and provides industry with over a year at Step 1 following the 6 month lead-in time to adoption. Step 1 does not penalize non-compliance and only requires industry to build to the current base building code. It would allow considerable time for industry to become accustomed to the Step Code process and allows for potential regional alignment. Moreover, many Part 3 developers are already familiar with the use of an energy model.

It should be noted that Step 3 is considered an Upper Step for two kinds of Part 3 buildings, namely high-rise residential and office buildings (Step 3 out of 3). While the Energy Step Code Council (ESCC) costing study shows Step 3 is achievable with minimal incremental cost, it should be noted that it assumed minimal window-to-wall ratios for high-rise residential buildings. Meeting Step 3 may require substantial changes in building design, layout, framing techniques, system selection, and materials. That being said, the District of Saanich received approximately 150 building permits for either high-rise residential or large commercial office buildings in 2017 and most of these buildings are already being built to a high performance level today (minimum Built Green Gold and some applications now at Passive House standards) due to the acknowledged benefits of operational savings and tenant attraction. In addition, such developments in the region tend to be designed with lower window to wall ratios in comparison to other cities such as Vancouver with highly glazed residential and commercial towers. As such, the transition to Step 3 for Part 3 developments by 2020 is considered achievable for both Saanich and the region.

ALTERNATIVES

1. That Council approve the recommendations as outlined in the staff report.

The proposed approach (Option 1 for Part 9 Buildings and Option 1 for Part 3 Buildings) provides a balance between the evaluation criteria, is informed by research and addresses the feedback received from the Phase 1 engagement. If endorsed by Council, this approach would be used for the next phase of engagement. As part of that engagement process, if significant concerns are raised, or new ideas/solutions are brought forward, these could be incorporated and/or brought to Council's attention at the next check-in.

Should Council not support this recommendation, the implications are that staff would take the feedback provided from Council, review the implications of the alternative approach and adjust engagement materials/approach for Phase 2. The above would result in a time delay and likely the inability to pursue a combined engagement process and common implementation approach with the City of Victoria.

2. That Council approve the recommendations as outlined in the staff report with an amendment to achieve Step 2 for high-rise residential and office Part 3 buildings as of January 1, 2020 as opposed to Step 3.

This approach would address the fact that Step 3 is considered an Upper Step for two kinds of Part 3 buildings, namely high-rise residential and office buildings (Step 3 of 3) and may require more substantial changes in building design, layout, system selection and materials. While this issue was not raised during our engagement session, this issue has been raised in some communities in the lower mainland.

Should Council approve this alternative, it would require engaging on only Step 2 by January 1, 2020 for Part 3 high-rise residential and office buildings, many of which already achieve a high energy performance level today due to the acknowledged benefits of operational savings and tenant attraction. It may also result in the inability to pursue a combined engagement process and common implementation approach with the City of Victoria.

3. That Council provide alternate direction to staff.

Should Council provide alternate direction to staff, the implications are that staff would take the feedback provided from Council, review the implications of the alternative approach and adjust engagement materials/approach for Phase 2. The above would result in a time delay and likely the inability to pursue a combined engagement process and common implementation approach with the City of Victoria.

FINANCIAL IMPLICATIONS

The implementation of a rebate program for Part 9 builders would require some staff support from the Finance Department, District solicitor and additional resources from Planning administration staff. These additional resources will be explored and outlined in greater detail in the final report to Council on a recommended option for implementation of the BC Energy Step Code.


STRATEGIC PLAN IMPLICATIONS

There are no immediate implications to the District of Saanich 2015 - 2018 Strategic Plan.

CONCLUSION

This report outlines a recommended approach for implementation of the BC Energy Step Code for Council to endorse as a basis for the second phase of engagement with industry and key stakeholders. The proposed approach provides a balance between the evaluation criteria, is informed by a review of Step Code resources, feedback from the first phase of engagement and a review of implementation options from other BC Municipalities. The same approach is being presented to the City of Victoria Council in an effort to support regional coordination on this important issue. The recommended approach would be refined based upon industry and stakeholder feedback and a final recommended option for implementation of the Step Code would be presented to Council in Spring 2018 for review and consideration.

Prepared by:


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RN/jsp

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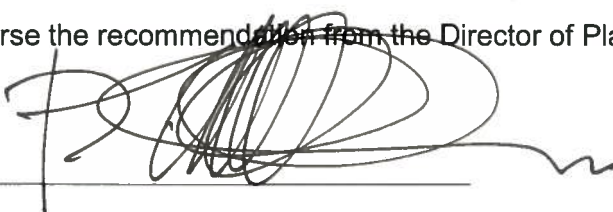
Attachments:

1. BC Energy Step Code Options for Implementation – Terms of Reference
2. BC Energy Step Code: Engagement – Industry Workshop Summary
3. CHBA – Vancouver Island – correspondence on the BC Energy Step Code
4. VRBA – correspondence on the BC Energy Step Code, 3 May 2017
5. VRBA – correspondence on the BC Energy Step Code, 14 September 2017
6. VRBA – correspondence on the BC Energy Step Code, 2 November 2017

cc:

Paul Thorkelsson, Administrator
Brent Reems, Director of Building, Bylaw, Licencing and Legal Services
Graham Barbour, Manager of Inspection Services**ADMINISTRATOR'S COMMENTS:**

I endorse the recommendation from the Director of Planning.



Paul Thorkelsson, Administrator

BC Energy Step Code Options for Implementation

Terms of Reference

Sustainability Division

11 August, 2017



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1.0 Introduction

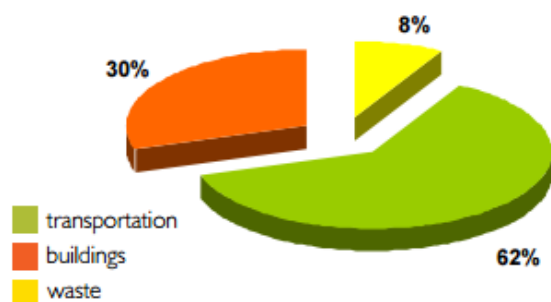
On December 15, 2017, under section 5 of the Building Act, the current local government bylaws on building energy efficiency will no longer be legally enforceable. The Building Act will require local governments wishing to set higher energy-efficiency standards than those in the BC Building Code to do so using the BC Energy Step Code (herein referred to as the Step Code).

The Step Code was brought into force by the Province in April 2017 and 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 provides a consistent provincial standard for energy efficiency to replace the wide range of existing policies and programs unique to each local government and allows builders flexibility to develop using all available technologies due to the performance based approach.

Net Zero Energy Ready Building:

A building built to high energy-efficiency standards such that it could (with additional measures) generate enough onsite energy to meet its own energy needs.

Figure 1: 2007 Saanich Community GHG Inventory



Given buildings account for approximately 30% of our community greenhouse gas (GHG) emissions, the Step Code presents a considerable opportunity for the District of Saanich to make progress on our commitment to a 33% reduction in community GHG emissions by 2020 and 80% by 2050 by focusing on improvements to the energy efficiency of new buildings alongside the existing residential retrofit programs that Saanich already supports.

As such, the District of Saanich, in collaboration with the Capital Regional District (CRD), other regional municipalities and key stakeholders, will assess options for implementation of the Step Code that work in the local context and develop a recommendation for its adoption by Council.

1.1 Purpose

The purpose of this Terms of Reference is to outline the process for:

- Phase 1:** Engaging the building industry and key stakeholders on the BC Energy Step Code in collaboration with the CRD and local municipalities;
- Phase 2:** Identifying options for implementation of the BC Energy Step Code that are appropriate to Saanich, cognizant of the benefit of consistency across the region and making a recommendation to Council on the preferred implementation option for adoption.

2.0 Background



2.1 Context

In December 2015, the federal government signed the Paris Agreement; committing to a reduction in Canada's carbon emissions by 30% below 2005 levels by 2030 and 80% by 2050, reflected in the BC Climate Leadership Plan (2016). This was followed by a commitment to improve energy efficiency in buildings in both the Leadership Plan and the Pan-Canadian Framework (2016). The Step Code aims to deliver on this commitment and was brought into force by the Province in April 2017.

2.2 What is the BC Energy Step Code?

The Step Code is a voluntary roadmap that 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.

2.2.1 The Energy Step Code Council

The Energy Step Code Council (ESCC) developed the Step Code and is overseeing its implementation. The ESCC is comprised of builders, developers, governments, utilities and professional associations, chaired by a representative of the Province of British Columbia's Building and Safety Standards Branch. The ESCC's primary purpose is to work collaboratively toward the successful adoption and implementation of the Step Code. It will address and collaboratively resolve issues relating to:

- **Technical Considerations** – providing advice and recommendations on technical aspects of the Step Code;
- **Policy and Regulation** – consulting with the Province and Local Governments on policy and regulation related to the Step Code;
- **Strategic Success** – identifying industry, local government, and provincial needs for successful adoption of the Step Code and monitoring its adoption;
- **Coordination and Leadership** - coordinating and directing research, communication, and training related to the Step Code.

2.3 The Need for a BC Energy Step Code

Multiple requirements, bylaws and policies exist for building energy efficiency across the province, dependent upon the local government. Given these will no longer be legally enforceable as of December 15, 2017, local governments wishing to set higher energy-efficiency standards than those in the BC Building Code will now do so using the Step Code.

The Step Code will apply to new residential construction, multi-unit and commercial buildings (both Part 3 and Part 9 buildings as they relate to the Building Code). It enables building owners to voluntarily build to the requirements in the Step Code or be incentivized or required to do so under local government bylaws and policies.

Whilst Step 1 is called the ‘Enhanced Compliance Step’ it should be noted that this only requires building to the current Building Code standard. The difference is that this performance must now be measured using a computer energy modelling program and the air leakage rate of the building (an indicator of a building’s energy efficiency) tested during construction. Energy modelling programs and air leakage testing already exist and are methods utilized by many members of the building industry.

In addition, the levels of the Step code have been evaluated against existing building energy performance standards such as BuiltGreen, Passive House and Energy Star to provide a level of comparison and understanding of different step requirements.

As such, the Step Code provides a consistent provincial standard for energy efficiency to replace the wide range of existing policies and programs unique to each local government. It also supports consumer choice by taking a new performance-based approach rather than a prescriptive approach. This allows builders flexibility to develop using all available technologies as the Step Code does not specify how to construct a building, only identifies an energy efficiency target that must be met.

Figure 2: BC Energy Step Code Pathway for Part 9 Buildings

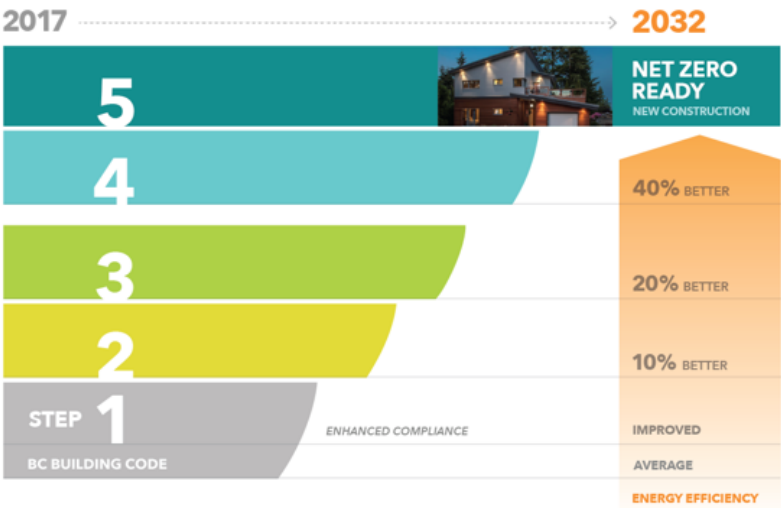
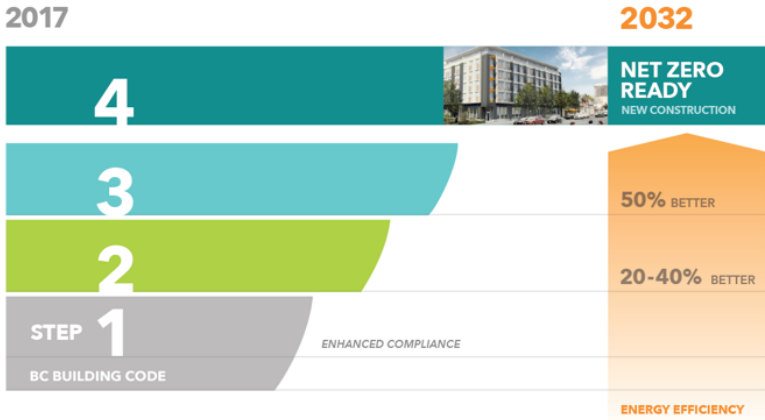


Figure 3: BC Energy Step Code Pathway for Part 3 Buildings



2.4 The Role of Local Government

A key conclusion of the Step Code (previously Stretch Code) Implementation Working Group Final Report was that the most important success factor relates to how the voluntary Code would be required or encouraged by local governments. There are many examples of communities that already require or incentivize greater building energy performance equivalent to higher levels of the Step Code, who will be transitioning their program to formally align with the appropriate tiers. For example, since 2011, 98% of homes in the City of North Vancouver have been built to the equivalent of Step 2 of the Step Code as a result of their Density bonusing policy. Similarly, District of Saanich re-zoning application approvals generally encourage homes to achieve BuiltGreen Gold, which is identified as equivalent to Step Code 2 or 3 for Part 9 buildings.

The District of Saanich has been engaged in the development of the Step Code through the BC Hydro Community Energy Manager forum. This enabled the District to provide input regarding local municipal context, constraints, opportunities and needs related to Step Code implementation, alongside other BC municipalities. This collaboration has assisted the ESCC in the development of tools and resources to support local governments in the implementation of the Step Code, including:

- Provincial Policy: Local Government Implementation of the BC Energy Step Code, Section C2 of the Building Act Guide, April 2017
- BC Energy Step Code Awareness & Readiness Survey
- BC Energy Step Code Webinar Series June and July 2017
- BC Energy Step Code Best Practices Guide, due early fall 2017
- BC Energy Step Code Costing Study, due early fall 2017

2.5 Alignment with Saanich Vision and Goals

Over the last decade, Saanich has been recognized as a leader for our consistent approach to GHG emission reductions. This recognition largely comes from Council, key stakeholder, public and staff support for actions across all departments both in our corporation and our community as a whole. This momentum was fuelled by Council approval of the Sustainable Saanich Official Community Plan (OCP) in 2008, the Climate Action Plan in 2010 and the Climate Change Adaptation Plan in 2011. The Climate Plans established a baseline GHG emissions inventory in 2007 and committed to a corporate target of 50% GHG emission reductions by 2020 and a community target of 33% GHG emission reductions by 2020 from 2007 levels.

Buildings represent approximately 30% of our community GHG emissions in Saanich (Figure 1). As our community population continues to grow, we see ever increasing applications for new development. Albeit new development is only a portion of the building stock and our GHG emissions inventory, it is considerably easier and often more cost effective to meet higher energy performance standards in new build versus retrofitting existing buildings. In addition, new buildings developed in the coming years will still exist and be contributing to the GHG emissions inventory in 2050, when there is an 80% reduction in

GHG emissions target (from the 2007 baseline) alongside a vision for becoming a 100% Renewable Energy community based on the recent Council motion (March 20, 2017).

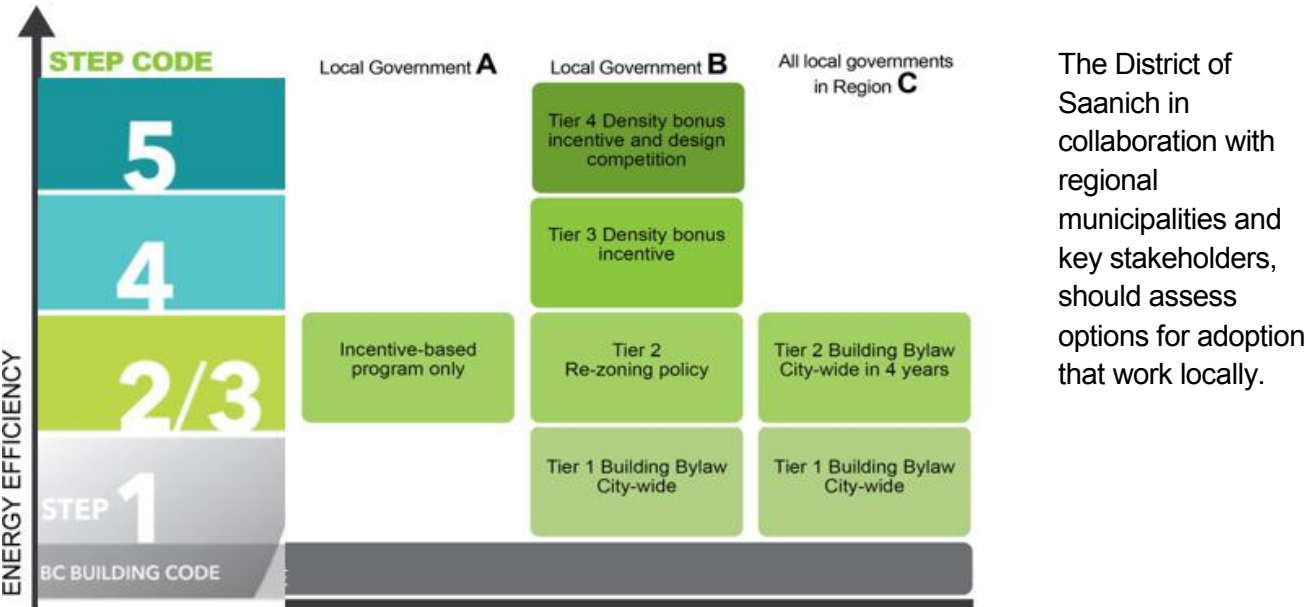
As such, the Step Code presents a considerable opportunity for the District of Saanich to make progress on our commitment to a 33% reduction in community GHG emissions by 2020 and 80% by 2050 by focusing on improvements to the energy efficiency of new buildings alongside the existing residential retrofit programs that Saanich already supports. In identifying higher standards of building energy performance, it offers the opportunity to establish the skill set and market required in the community to also improve the energy performance of existing buildings through energy retrofits.

However, it is important to note that the Step Code relates only to building energy performance and does not address other aspects of a development’s sustainability such as location, access via sustainable transportation, water efficiency, ecology, materials and resources, design for deconstruction, waste and recycling in both construction and operation, affordability, food production, design etc. Given this, it will be important to continue to address these other considerations through the planning application and rezoning process.

2.7 Options for Implementation

There are several approaches a local government may take in implementing the Step Code ranging from the approval of a Building By-law requiring a minimum step to be adopted city-wide, to the use of incentives for developers to achieve higher steps above that minimum level (Figure 4).

Figure 4: Potential Options for Step Code Adoption



3.0 Approach

3.1 Roles & Responsibilities

3.1.1 Internal Project Working Group

An internal working group has been established consisting of representatives from Sustainability, Current Planning, Community Planning and Building Inspections. The group will provide technical expertise and advice related to current planning and building inspections processes, bylaws and climate mitigation and will draw on best practice research from multiple networks appropriate to their discipline. They will also support public and key stakeholder engagement, communicate information regarding the project back to their departmental team and review draft version(s) of the Step Code report. The project will be led by the Sustainability Division.

A key consideration will be to ensure the project both informs, and is informed by other Saanich, regional, provincial and federal plans, policies and guidelines. These include, but are not limited to those identified in Appendix A.

3.1.2 Regional Working Group

The building industry and associated markets cross municipal boundaries; many of the builders, architects, urban designers, energy modellers and investors developing in the District of Saanich are also developing in the City of Victoria, Esquimalt and other regional municipalities. Therefore, it is recognized that there are benefits of efficiency from engaging industry at the regional or sub-regional level, in addition to the consistency that could be provided through the adoption of similar Step Code levels and approaches to implementation by the local regional municipalities. In light of this, the CRD Climate Action Program has received BC Hydro Sustainable Communities funding to undertake regionally focused programming on the BC Energy Step Code in fall 2017. This will complement the education and engagement activities currently being undertaken by the ESCC and their partners.

The CRD has engaged local municipalities through the Climate Action Program Inter-municipal Working Group (IMWG) in the development of this programming, which is still being finalized. More details regarding this programming are outlined in Section 3.2.1 below.

3.2 Approach

The Step Code: Options for Implementation Report will be developed using a robust and transparent engagement process, providing opportunities for building industry groups, key stakeholders and residents of Saanich to be involved in the process. Engagement will focus on the 'Involve' and to some degree 'collaborate' part of the International Association of Public Participation (IAP2) spectrum of public participation (Appendix B):

To work directly with key stakeholders and the public throughout the process to ensure that their concerns and aspirations are consistently understood and considered as part of the decision making process.

3.2.1 Phase 1: Engagement & Analysis

Phase 1 will focus on engaging the local building industry and key stakeholders to gain an understanding of Step Code knowledge and preparedness for adoption, to raise awareness and to discuss opportunities for its implementation locally. It will include both CRD regional programming in addition to District of Saanich and City of Victoria combined industry and key stakeholder engagement. Phase 1 will also include a review of potential options for implementation of the Step Code, including building bylaws, potential incentives for higher levels of the Step Code, benchmarking against other municipalities and local variables that could impact success.

There are several engagement and training opportunities underway across the province related to the Step Code ranging from ESSC webinars and resources, industry lunch and learns and conference presentations to Canadian Home Builders' Association of BC Certified Energy Advisor Training, amongst others. In addition, the CRD program proposes to include the following (note: this program is still being finalized):

- **Capital Region Building Industry Survey**
 - To determine local awareness and preparedness and to inform workshop engagement
- **Realtor Workshop: “Selling Energy Efficiency”**
 - In-classroom tour of retrofit homes, informational toolkit
- **Building Inspectors Working Session**
 - Understanding energy modelling and air tightness testing, Energy Advisors role, reporting the Step Code
- **Local Government Staff Workshop**
 - Results of the Building Industry Survey, implementation considerations, opportunities and gaps, next steps
- **Energy Efficiency Building Tour**
 - ESSC presentations, results of CRD Builder Industry Survey, tour of energy efficient buildings equivalent to different Step Code levels and Q&A with developers – for elected officials and local government staff.
- **Energy Literacy Communications Tools**
 - Backgrounder on Step Code, energy efficiency technologies, costing, energy modelling and other considerations for the general public and industry.
- **Potential Mobile Air Tightness Display and workshop**

Given that the building industry and associated markets cross municipal boundaries, there are benefits to the regional municipalities collaborating on additional engagement events related to Step Code implementation. This allows for efficiencies, sharing of information regionally, an understanding of issues that cross boundaries and opportunities for consistency through the adoption of similar Step Code levels

and approaches to implementation. Hence, in addition to the above CRD program, the District of Saanich, in collaboration with other regional municipalities, would engage building industry and key stakeholders through focus group workshop(s) to discuss options for implementation of the Step Code. A draft list of key stakeholders is outlined in Appendix B and will be supplemented as required. It is recognized that each stakeholder group has different priorities and the diversity of these priorities will be reflected in the approach to engagement and the final recommended option.

3.2.2 Phase 2: Report to Council on Options for Implementation

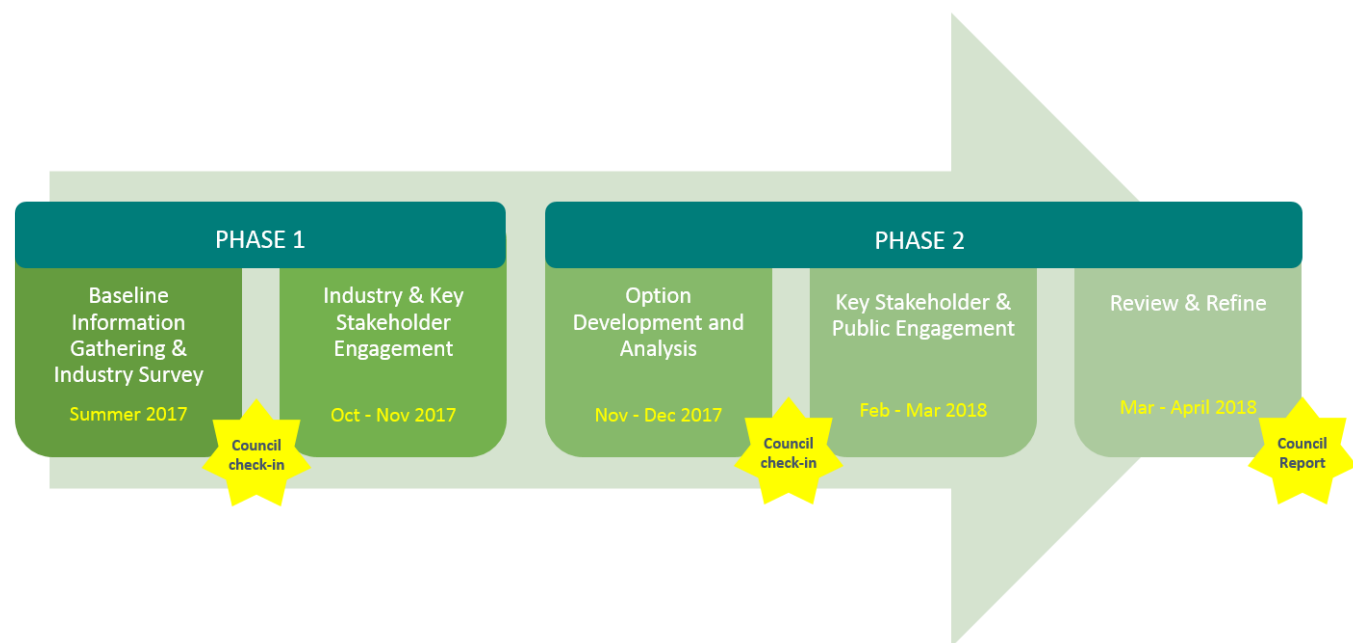
Following the engagement and analysis completed in Phase 1, staff will prepare draft options for implementation of the Step Code, which will then be presented to Council for information and feedback. The BC Energy Step Code: Options for Implementation Report will then be drafted, including a recommended option for adoption and released for public and stakeholder engagement. Public and key stakeholder feedback will be incorporated within the final report to Council.

4.0 Project Scope & Timeline

4.1 Project Timeline

The BC Energy Step Code: Options for Implementation Report will be developed over a 6-8 month period in which key stakeholders and community would be actively involved (Figure 5).

Figure 5: Project Timeline and Process



4.2 Project Scope

Table 1 provides details of the process with project phases, activities and key deliverables.

Table 1: Project Process, Key Deliverables and Timeline

Phase	Activities	Key Deliverables	Duration
Phase 1	Council Check-in – Terms of Reference Approved		Sep-Oct 2017
	Baseline Information Gathering & Industry Survey	<ul style="list-style-type: none">Review Saanich bylaws & policy for required amendmentsRelease and review of ESSC tools for local governmentResearch and technical analysis of key issues and opportunities.Benchmark analysis with other municipalitiesCapital Region Builder Industry Survey & local case studies	<ul style="list-style-type: none">Terms of ReferenceBackgrounderBuilding Industry Survey Summary Summer 2017
	Industry & Key Stakeholder Engagement	<ul style="list-style-type: none">CRD Realtor Workshop: “Selling Energy Efficiency”CRD Building Inspectors Working SessionCRD Energy Efficiency Building TourCRD Energy Literacy Communications ToolsCRD Potential Mobile Air Tightness Display and workshop	<ul style="list-style-type: none">Energy Literacy Communication ToolsPhase 1 Engagement Summary Report Oct-Nov 2017
Phase 2	Option Development & Analysis	<ul style="list-style-type: none">Industry and key stakeholder focus group meetingsCRD local government staff workshopDraft options for Step Code adoption and implementation	<ul style="list-style-type: none">Draft Options for Implementation Nov-Dec 2017
	Council Check-in – Engagement Summary Report and Draft Options for Implementation		Jan 2017
	Key Stakeholder and Public Engagement	<ul style="list-style-type: none">Prepare public engagement materialsIndustry, key stakeholder and public engagement and open houses on Draft Options	<ul style="list-style-type: none">Phase 2 Engagement Summary Report Feb – Mar 2018
	Review & Refine	<ul style="list-style-type: none">Refine options based upon engagement inputDraft BC Energy Step Code: Options for Implementation Report & prepare cover report for Council	<ul style="list-style-type: none">Step Code ReportCover Council Report Mar – April 2018
	Council Report – BC Energy Step Code: Options for Implementation		May 2018

5.0 Budget

The BC Energy Step Code Options for Implementation Report will be developed in close consultation with the CRD and with other municipalities within the region and will consider other District priorities, objectives and resources. The project will require staff time from the Planning Department and Building Inspection Services. In addition, some limited budget will be required for stakeholder and public engagement events given a proportion of the engagement is being coordinated at the regional level by the CRD with funding support from BC Hydro.

The District of Saanich will require \$25,000, over 6-8 months to complete the Saanich specific engagement component of the project. Typical budget considerations include costs for advertising, venues, event stalls, guest speaker, event food and supplies.

Appendix A: Key Policies and Plans

The following table provides a list of key Saanich policies and plans that will both inform and be informed by the BC Energy Step Code Options for Implementation Report.

Key Policies and Plans	
Saanich Official Community Plan, 2008	Saanich Development Application Package
Saanich Climate Action Plan, 2010	Saanich Local Area Plans
Saanich Climate Adaptation Plan, 2011	Saanich Strategic Facilities Masterplan (in development)
Saanich Bylaws and Policies: <ul style="list-style-type: none">➤ Saanich Green Building Policy, 2005➤ Saanich Local Area Services and Taxes Policy, 2015➤ Saanich Zoning Bylaw 8200, 2003 as updated	

Appendix B: IAP2 Engagement Goals & Strategies

The following table outlines the participation goals and strategies based upon the International Association of Public Participation (IAP2) spectrum of public participation.

	Inform	Consult	Involve	Collaborate
Public Participation Goal	To provide balanced and objective information that will keep key stakeholders and public up to date and assist them in understanding the issues, problems, alternatives, opportunities and/or solutions.	To obtain key stakeholder and public feedback on analysis, alternatives and/or decisions.	To work directly with key stakeholders and the public throughout the process to ensure that their concerns and aspirations are consistently understood and considered as part of the decision making process.	To partner with key stakeholders and the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.
Proposed Engagement Strategies	<ul style="list-style-type: none"> • Project website • Newsletters, email updates • Background research papers • Presentations to stakeholder groups 	<ul style="list-style-type: none"> • Surveys • Open houses • Attendance at events 	<ul style="list-style-type: none"> • Stakeholder workshops • Focus topic workshops/ meetings • One-on-one interviews/ meetings 	<ul style="list-style-type: none"> • Stakeholder workshops • Stakeholder emails with documents for review • Open houses • Attendance at events

Appendix C: Key Stakeholder List

The following table provides a draft list of key stakeholders. This list may be expanded or refined as engagement is initiated.

Key Stakeholders	
Saanich Council & Staff	
<ul style="list-style-type: none"> • District of Saanich Council • Planning, Transportation and Economic Development Committee 	<ul style="list-style-type: none"> • Environment and Natural Areas Committee • Saanich Planning Department • Saanich Building Inspections Division
Other Government Sector	
<ul style="list-style-type: none"> • CRD – Climate Action Program and Inter-Municipal Working Group 	<ul style="list-style-type: none"> • Energy Step Code Council • Local and provincial municipalities
Major Institutions	
<ul style="list-style-type: none"> • Camosun College • Saanich Youth Council • School District 61 and 63 	<ul style="list-style-type: none"> • University of Victoria • Vancouver Island Health Authority (VIHA)
Energy, Technology & Environment Industry and Agencies	
<ul style="list-style-type: none"> • BC Sustainable Energy Association • BC Hydro • Fortis BC • City Green Solutions 	<ul style="list-style-type: none"> • Community Energy Association • Vancouver Island Economic Alliance • Vancouver Island Technology Park
Building Development Industry	
<ul style="list-style-type: none"> • Architectural Institute of British Columbia • BC Housing • BuiltGreen Canada • Building Owners and Managers Association of BC (BOMA) • Canada Green Building Council (CaGBC) • Canadian Home Builders Association • Capital Region Housing Corporation 	<ul style="list-style-type: none"> • Greater Victoria Housing Society • Passive House Institute Canada • Planning Institute of British Columbia • Real Estate Foundation British Columbia • Urban Development Institute • Vancouver Island Strata Association • Victoria Real Estate Board • Victoria Residential Builders Association



Key Stakeholders

Community Members and First Nations

- | | |
|---|---|
| <ul style="list-style-type: none">• Climate Information Collaborative• First Nations (Songhees, Esquimalt, Tsawout, Tsartlip)• General Public and Residents | <ul style="list-style-type: none">• Greater Victoria Acting Together for the Common Good (GVAT)• Saanich Community Associations• Saanich Community Association Network (SCAN) |
|---|---|



BC ENERGY STEP CODE: ENGAGEMENT

CAPITAL REGION BUILDING INDUSTRY WORKSHOP SUMMARY

1.0 Introduction

The BC Energy Step Code is a provincial building regulation that applies to new residential, multi-unit and commercial construction. It provides a voluntary roadmap that 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. More information is available at www.energystepcode.ca.

1.1 Regional Engagement on the Step Code

There are several engagement and training opportunities underway across the province related to the Step Code ranging from Energy Step Code Council (ESSC) webinars and resources, industry lunch and learns and conference presentations to Canadian Home Builders' Association of BC Certified Energy Advisor Training, amongst others. Local Governments in the Capital Regional District (CRD) have been gathering industry feedback on options for adopting the Step Code throughout Fall 2017 as part of a larger program of regional engagement led by the CRD. This program included:

- **Capital Region Building Industry Survey**
 - To determine local awareness and preparedness and to inform workshop engagement
- **Realtor Workshop: "Selling Energy Efficiency"**
 - In-classroom tour of retrofit homes, informational toolkit
- **Building Inspectors Working Session**
 - Understanding energy modelling and air tightness testing, Energy Advisors role, reporting the Step Code
- **Local Government Staff Workshop**
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- **Energy Efficiency Building Tour**
 - ESSC presentations, results of CRD Builder Industry Survey, tour of energy efficient buildings equivalent to different Step Code levels and Q&A with developers – for elected officials and local government staff.
- **Energy Literacy Communications Tools**
 - Backgrounder on Step Code, energy efficiency technologies, costing, energy modelling and other considerations for the general public and industry.

In addition to the above events, the City of Victoria, District of Saanich, District of North Saanich, Capital Regional District (Climate Action Program), Canadian Home Builders Association – Vancouver Island (CHBA) and Urban Development Institute – Capital Region (UDI) planned and delivered an in-person building industry engagement workshop on local opportunities for the Step Code.

The purpose of this workshop was 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 and potential approach for local implementation, including Step levels, timeline and support required.

2.0 Method

The workshop was held on November 1, 2017 and designed with input from UDI, CHBA, local government staff and feedback from the industry survey. The workshop was promoted through CHBA and UDI newsletters, mailing lists, municipal builder lists, local government websites and flyers at planning and engineering front counters.

The workshop format included formal presentations from representatives of the Province of BC, Building Safety Standards Branch, the CRD, City of Victoria and District of Saanich, a local energy modeler/advisor, and local builders and designers of both Part 9 and Part 3 buildings, followed by a question and answer period. A facilitated table discussion was then held based on pre-determined questions with table facilitators. Attendees received a hardcopy follow-up survey, which they were encouraged to fill out at the event or return to staff at the City of Victoria and District of Saanich by November 27, 2017.

3.0 Results

There were 90 attendees at the workshop, and organizers received 13 follow-up surveys. Through an informal survey of attendees, approximately a quarter identified themselves as working on both Part 3 and Part 9 buildings, the remainder indicated they work on Part 9 buildings only.

3.1 Facilitated Table Discussions

For the discussions, there were eight tables total. Five tables were labelled as Part 9, and three were labelled as Part 3. Attendees chose where to sit. Tables 1-4 provide a summary of the feedback from the facilitated table discussion.

Table 1: Feedback on Key Concerns for Implementation of the Step Code

Q1 a. What are your key concerns regarding implementation of the Step Code?		
Training / Education / Awareness (7 out of 8 tables)	General Comments	<ul style="list-style-type: none"> • Need for local, island based training • Shortage of trainers • Understanding roles, especially Energy Advisors • Concerns about accurate information and need to address misinformation

Q1 a. What are your key concerns regarding implementation of the Step Code?		
		<ul style="list-style-type: none"> Need to set clear expectations
	Municipalities	<ul style="list-style-type: none"> Building officials training – ensures consistent application Misinterpretation/misinformation on applications across municipalities, timelines etc.
	Builders	<ul style="list-style-type: none"> Busy schedules & demands – hard to undertake Training for all- especially the inexperienced e.g. unregistered building designers are not included in the conversation More work for consultants to support staff training Challenging to change habits
	Sub-trades	<ul style="list-style-type: none"> Required – need to clarify who is responsible for training Prefer on-site options
	Public	<ul style="list-style-type: none"> Need buyer awareness Education for all to address fear of change
Risk, Assurance and Liability (7 out of 8 tables)	Technology & New Products	<ul style="list-style-type: none"> Desire to ensure new technology is proven Risk of new products being used incorrectly Risk of stretching to reach higher steps beyond capabilities
	Quality Control Issues	<ul style="list-style-type: none"> Future issues e.g. vapour issues Workmanship - no/little control Trades, etc. have skills
	Liability	<ul style="list-style-type: none"> Performance confirmation e.g. through letters of assurance.
Regional Consistency (4 out of 8 tables)	Municipal Coordination	<ul style="list-style-type: none"> Need general coordination between municipalities Need consistency between building officials Questioned whether Province is providing direction for consistency in implementing across municipalities Similar requirements and timing for implementation regionally
Enforcement / Reporting (3 out of 8 tables)	General	<ul style="list-style-type: none"> Slow permitting process Implications if required Step is not met Follow-up – commissioning, performance, occupancy
Additional Comments	General	<ul style="list-style-type: none"> Lack of available energy auditors Availability of energy verifications for Part 3 buildings Product availability and access for first timers. Limiting choice for consumers (e.g. electric vs. gas) Step Code for renovations to achieve municipal targets

Table 2: Feedback on Key Opportunities regarding Implementation of the Step Code

Q1 b. What are the key opportunities regarding implementation of the Step Code?		
Operational Savings &	Messaging & Communication	<ul style="list-style-type: none"> Need more communication in general Messaging related to operational savings

Q1 b. What are the key opportunities regarding implementation of the Step Code?		
Consumer Benefits (5 out of 8 tables)		<ul style="list-style-type: none"> Consider pay back and full cost, not just upfront capital Consumer awareness of value/thermal comfort
	Added value and quality control	<ul style="list-style-type: none"> Ensures quality control and transparency for consumers Ability to enforce and report building code compliance (energy) More opportunities beyond the costing study Market demands energy efficiency - forces developers to higher standard Cost vs. performance, opportunity to see the bigger picture Generally low cost for considerable value
Additional Comments	General	<ul style="list-style-type: none"> Allows for innovation Lower steps only require quick learning curve Collaboration and consistency across region and province Provides predictability to building industry re: forecasting New business opportunity for support agencies

Table 3: Feedback on what would help with Adoption?

Q2. What would help with adoption?		
Incentives (6 out of 8 tables)	General	<ul style="list-style-type: none"> Useful to offset incremental costs Provincial and municipal support Incentives valuable for at least 2 years to allow for process
	Rebates	<ul style="list-style-type: none"> Incentivize the energy audit Prefer money back Utilities should be contributing to these as well Building permit rebate
	Land Use	<ul style="list-style-type: none"> Density bonus incentive Re-zonings/development permit with covenant
	Other	<ul style="list-style-type: none"> Get training credits in ways to reach steps Tax incentive program Caution about the impact fast tracking may have on other applications
Builder and Trades Training (5 out of 8 tables)	Training Topics	<ul style="list-style-type: none"> Clear professional responsibility and people understanding Prescriptive vs. performance
	Format	<ul style="list-style-type: none"> Accessible, practical training on-site vs. desk based Ability for sub-trades/developers to attend mid-construction blower door test and energy evaluation walkthrough of active developments to learn on-site on regional projects Building tours Get training credits in ways to reach steps

Q2. What would help with adoption?

		<ul style="list-style-type: none"> Workshop focused (e.g. walls)
	Support	<ul style="list-style-type: none"> Municipalities support identification of developers willing for other industry players to come on their site for energy evaluation learning through forms? Requirement of a financial incentive to get the mid-construction blower door test? UDI or CHBA facilitate registration for onsite blower door tests/walk through onsite training? Addresses the need for local training, in a real scenario whilst reducing resource requirements and understanding that the workforce is extremely busy. Provincial/ muni support Magazine - Energy Adv. Municipalities could offer in-kind space for training. Need expertise/consultants.
Municipal Consistency and Policy (4 out of 8 tables)	Training and Education	<ul style="list-style-type: none"> Need for collaboration and consistency Building Officials training to ensure consistent interpretation Community and elected officials training to ensure they do not ask for architectural or design features that limit ability to achieve higher Steps
	Policy	<ul style="list-style-type: none"> Amend method for calculating allowable areas and height of buildings to ensure energy efficient buildings are not penalized for thicker walls or high trusses required for additional insulation Amend design guidelines to reflect some of the design restrictions that may apply to Step 4/5 net zero developments Allow for grace periods Consistent plan if projects don't meet targets Should have to model to Step 2 or 3, to meet Step 1 Provide sufficient lead-time for implementation – min. 6 months for lower levels
Blower Door Tests & Energy Advisor (3 out of 8 tables)	General	<ul style="list-style-type: none"> List of Energy Advisors needs to be publicized Energy advisor will help with learning curve Should be tied to performance Mid-point blower door should be mandatory
Robust Information and Education Campaign (3 out of 8 tables)	General Audience	<ul style="list-style-type: none"> Deadlines and timelines Municipalities have to opt into its use Step 1 is just reporting (no change to code) Packaged consumer education to explain tangible benefits – use story telling, language is important
	Target Audience	<ul style="list-style-type: none"> Politicians (key for rezoning/Development Permit applications) Homebuyers - link to financing/mortgage

Q2. What would help with adoption?		
		<ul style="list-style-type: none"> • Front counter staff - knowledgeable & enthusiastic • Local building magazines, realtors and home tours
Additional Comments	General Comments	<ul style="list-style-type: none"> • Energy modelling encourages integrated design processes • Data capture and energy labeling - educate realtors and include in home inspections • Strong local government and provincial leadership

Table 4: Feedback on What Step is Achievable today and into the Future?

Q3. What Step do you think is achievable today and into the future?		
Step 2 (4 out of 8 tables)	General	<ul style="list-style-type: none"> • This is already best practice – small learning curve • Similar materials used but need to show how similar
	Timing	<ul style="list-style-type: none"> • Achievable now • Safe and reasonable for next 2-5 years
Step 1 (4 out of 8 tables)	General	<ul style="list-style-type: none"> • BC Province should state what step with Step 1 required • Require model to Step 2/3 but meet Step 1 - allow grace period • Will help to train and learn process
	Timing	<ul style="list-style-type: none"> • Now as introduction, with lead time, mid-end of 2018 • Achievable today
Step 3 (3 out of 8 tables)	General	<ul style="list-style-type: none"> • Uses conventional techniques – small learning curve • Some Part 9 already achieving Step 3 and Step 4 for Part 3 • Transitioning from Step 3 to 4 will be more challenging
	Timing	<ul style="list-style-type: none"> • Now
Additional Comments	General comments	<ul style="list-style-type: none"> • Municipal policy – mandate lower and incentive higher Steps • Provide consistent standards amongst building form • Requirements and quality need to be considered together • Provide sufficient lead-time • Municipalities should forecast out (ex. 2 years, then 5 years). • Steps depend on which municipality

3.2 Follow-up Survey Findings

A follow-up survey was provided to attendees at the November 1, 2017 workshop in print and digital format. 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 unable to attend the event. Hosts collected the surveys at the event, and also allowed for submittals up to November 27, 2017. A total of 13 surveys were received and the feedback focused on similar themes identified at the industry workshop as outlined in Figures 1-3 and Tables 5-7 below.

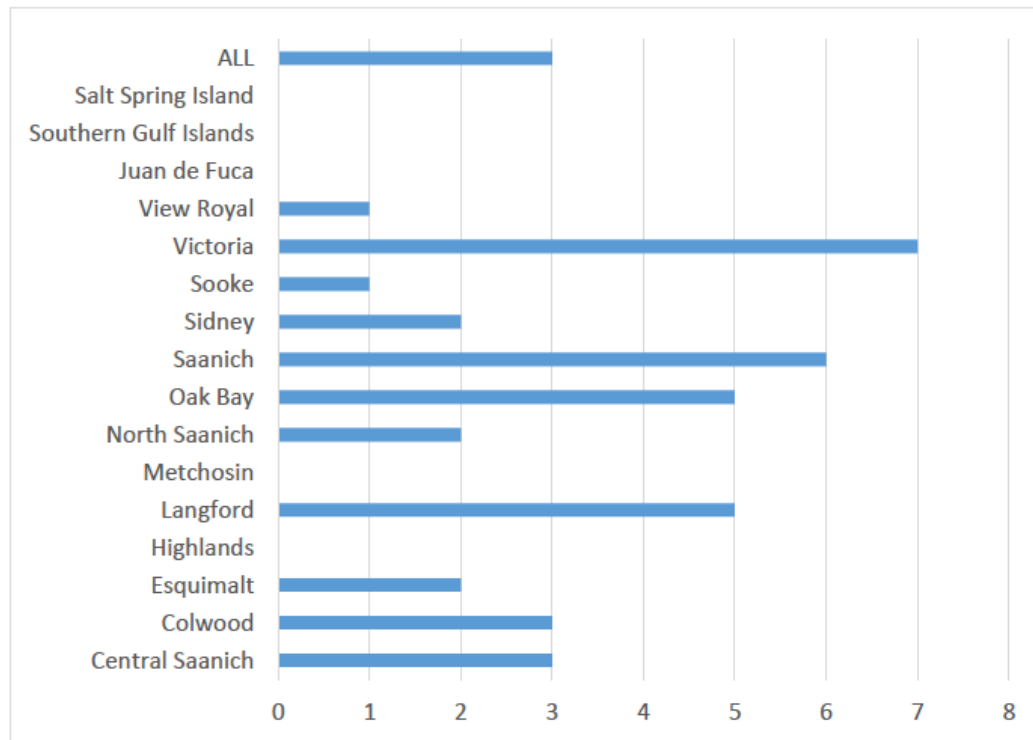
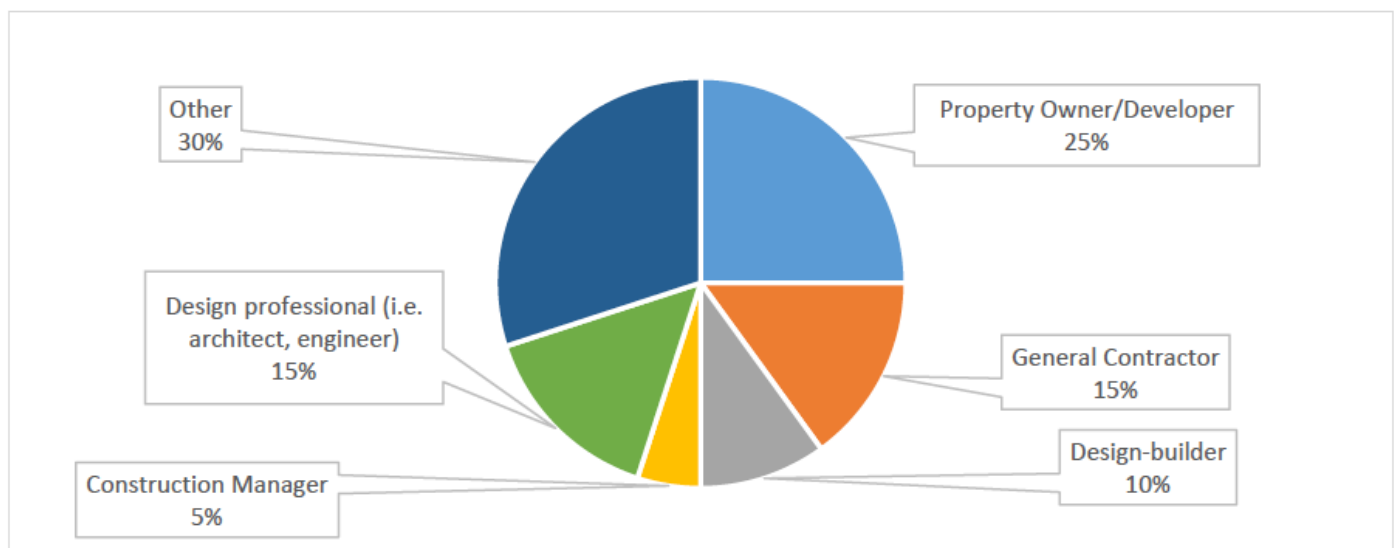
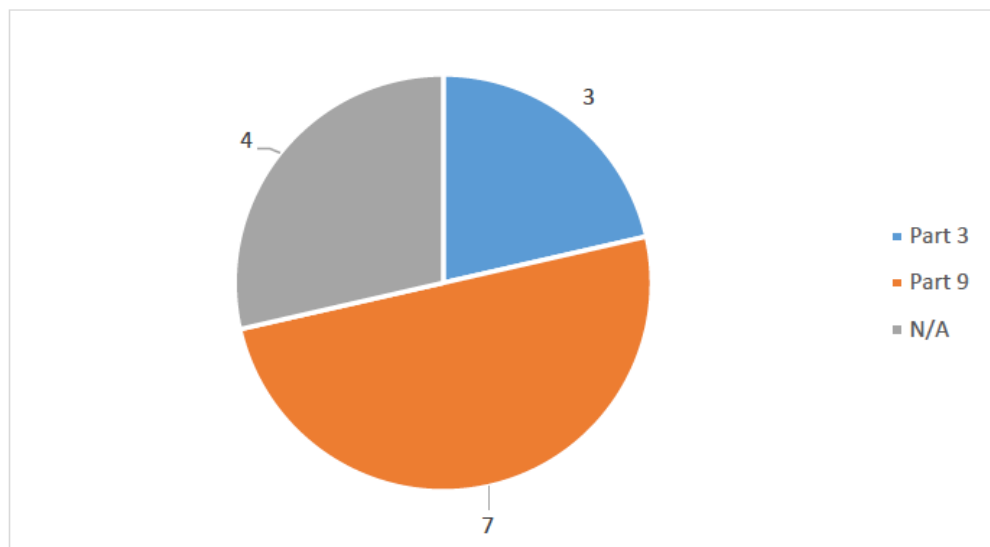
Figure 1: In what municipalities or electoral areas within the Capital Region do you work?**Figure 2: How would you describe your role in the building industry?**

Figure 3: What type of buildings do you construct?**Table 5: Key concerns and opportunities regarding implementation of the Step Code**

Key Concerns (# responses)	Key Opportunities (# responses)
Education, awareness, communications and training (5)	Quality control (6)
Consistency between municipalities (4)	Greenhouse Gas (GHG) reduction (4)
Municipal readiness (3)	Operational savings (1)
Lack of buy-in (2)	Awareness and profile (1)
Lack of energy modellers and energy advisors (2)	Predictability (1)
Risk, assurance and liability (2)	Economic and business opportunities (1)
Costs (1)	Consumer benefits (1)
None (1)	

Table 6: What would help with adoption of the Step Code?

What would help with Adoption (# responses)
Education and training (9)
Incentives (2)
Energy labeling on all new homes / Quality Assurance (2)
Builder inspector training (1)
Energy modeling (1)
Collaboration and Consistency (1)

Table 7: What Step is achievable today and into the future?

Step Level (# responses)	Detailed comments
Step 4/5 (6)	<ul style="list-style-type: none"> • Step 5 - currently do passive house. May be a stretch now - but within 3-5 years • Net zero actual - 5-7 years due to solar PV cost curve • Step 4 by 2025 (Part 3 Net zero ready) • Step 5 by 2030 (Part 9 net zero ready) • Step 4/5 by 2032 • All steps are achievable today – some builders require training • Any builder able to achieve middle steps – fairly easy to achieve top step
Step 2 (4)	<ul style="list-style-type: none"> • Step 1 and 2 are current practice - do now, easy and safe • Already existing bylaws and growing base of high performance builders.
Step 1 (2)	<ul style="list-style-type: none"> • Step 1 now - Step 3 by 2020
Step 3 (1)	<ul style="list-style-type: none"> • Step 3 now • Step 3 by 2020

4.0 Next Steps

The feedback above will be summarized alongside input from other CRD Step Code events and presented to the CRD Board in early 2018. This will then be provided to local municipalities for their information and to inform options for implementation where applicable. The City of Victoria and District of Saanich are preparing draft options for implementation of the Step Code, informed by the feedback outlined above, which will then be presented to their respective Councils in early 2018 prior to a proposed second round of engagement. More information will be available at www.victoria.ca and www.saanich.ca.

Dear Mayor and Council:

On behalf of Canadian Home Builders' Association of Vancouver Island, I am writing to offer our support for your upcoming consultations on the new B.C. Energy Step Code.

CHBA Vancouver Island represents home builders, developers, renovators, suppliers and other industry professionals. We work to raise the bar of professionalism in the industry, and advocate for affordability, quality, and choice for consumers.

CHBA BC was a key participant in creation of the B.C. Energy Step Code and remains a member of the technical committee. We now wish to continue that partnership at the local level and work collaboratively with local governments on implementation. We are prepared to be an active partner, with an industry perspective, and provide valuable input on behalf of members to inform capacity, costs, and training gaps that may exist during implementation on Step Code.

We believe it is critical for representatives of the industry to be part of the consultation. Please let us know who would be the best contact for this. We look forward to discussing this opportunity in greater detail.

Sincerely,



Mark Bernhardt B.Sc.
Incoming President,
On behalf of CHBA Vancouver Island

CHBA VI Contact Information
Phone 250-755-1366
170 Wallace Street,
Nanaimo, BC
V9R 5B1



Community Builders...

Building Communities

November 2, 2017

Dear CRD Chair and Board,

RE: Update on BC Step Code

Following our letter of September 14, Re: **Step Code Survey to VRBA Members**, the Ministry of Municipal Affairs and Housing released a report on the costs of the Step Code.

The report is not credible when compared to our own survey of 22 experienced builders, including Built Green, Passive Home and Net Zero contractors. For example, the ministry estimates a Tier 5 (Passive Home) will cost only an additional \$17,450 over a base code home.

Our builders estimate the additional cost to be between \$55,410 and \$110,820 and in this environment of weekly rising prices for material and labour, the number is likely to be on the higher side. Given this disparity between the report and real world construction costs, the report should be disregarded for any Tier.

In addition, when council asks for the designations of Built Green, Leed, or Passive Home, the contractors must be registered with the program and have certified education to deliver that specific product. Education is the foundation of professionalism and helps protect your residents and municipality.

There is no certified education for the Step Code. While the ministry claims it will provide seminars for the Step Code, attendance by builders is optional.

The Step Code is poor policy increasing costs and risk while undermining certified education programs and National Building Code diligence.

In addition, there is negligible benefit reducing GHG's at significant cost in already energy efficient new homes. Our older housing stock is where real energy efficiency gains can be achieved.

For these reasons and others, including the real potential for unintended consequences, VRBA does not support the Step Code at any level. We recommend support for Built Green, a very successful certification program that includes energy efficiency, water conservation, recycling and affordability – critical for young families in BC.

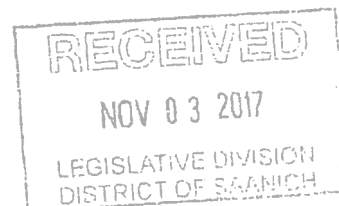
You can find more information on the Step Code at our website <http://www.vrba.ca/need-know-bc-step-code/>. Feel free to contact me for any additional information.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Casey Edge".

Casey Edge
Executive Director

cc Honourable John Horgan, Premier of British Columbia
cc Honourable Selina Robinson, Minister of Municipal Affairs and Housing
cc CRD municipalities





Community Builders...

Building Communities

September 14, 2017

Dear CRD Chair and Board,

RE: Step Code Survey to VRBA Members

This is the official reply from VRBA's Builders Council to your Step Code Survey request. The Step Code as proposed fast-tracks energy efficiency, undermines national and provincial code standards and puts consumers at risk. Our concerns include:

1. The Step Code redirects the BC Building Code's primary mandate from health and safety to climate change. Climate change is important, but consumer protection must come first, as demonstrated by leaky condo, asbestos, and urea formaldehyde insulation.
2. The Step Code does not effectively address climate change. There is a reduction of only 1 or 2 air changes per hour (GHGs) in already energy efficient, new homes. Renovation of an older home can save 20 air changes.
3. The province agreed to harmonize BC's Building Code with the National Code. The Step Code violates that agreement, neglects national due diligence and undermines consumer protection.
4. BC's previous government signed the Step Code in April prior to a cost/benefit study. These studies normally provide critical information for the minister before signing.
5. The government's present estimated costs, yet to be released, are much lower than indicated in our own survey of VRBA builders. The government does not build and sell homes. When the public calls for quotes, they will not resemble the government's estimates.
6. Enabling 160 municipalities to cherry-pick 1 of 5 energy efficiency steps is a recipe for unintended consequences. High levels of energy efficiency require education and proven practice, not yet sufficiently demonstrated in large numbers.

Our view is if the Step Code must be introduced, it should only occur at a low tier (1 or 2) and increased only in 5 year increments after affordability, education and proven practice have been established, which still gets the province to its stated goal of Net Zero by 2032. Climate change is most effectively addressed now by reducing air changes in older homes via a renovation tax credit using a small percentage of BC's \$2 billion Property Transfer Tax revenue.

Please be aware that presently, a builder **agrees** to build beyond the code in exchange for a rezoning. Municipalities, via the Step Code, will be **imposing** a higher code standard on all builders and accept greater responsibility based on their assessment of builder competence in the region. BC Housing is the province's licensing authority. In our view, municipalities are not equipped to make such an assessment. In addition, a survey and workshop are entirely inadequate to assess the expertise of the region's builders.

VRBA will have a booth (#409) at the UBCM Trade Show and I would be pleased to further discuss this issue, energy efficiency and housing affordability.

Yours sincerely,

Casey Edge

Executive Director

cc Hon Selina Robinson, Minister of Municipal Affairs and Housing
CRD municipalities



2560-30 Energy - 15 MAY 2017

May 3, 2017

Mayor Atwell and Council
District of Saanich
770 Vernon Ave.
Victoria BC V8X 2W7

AB
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JM
FUI + FILE - SA
15 MAY 2017

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COPY RESPONSE TO LEGISLATIVE DIVISION	<input type="checkbox"/>	
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Dear Mayor and Council,

Re: Step Code

The province is launching a new regulation outlining energy efficiency options for housing called the **Step Code**. Municipalities may choose energy efficiency requirements from 5 Tiers above the existing base Building Code. The following is some background and our recommendation.

The base Building Code does not require performance-based testing and so existing air changes may be 4 or 5 per hour. Tier 1 of the Step Code is performance-based (eg modeling/blower door test) and is a significant improvement over the base code. Tier 2 was introduced by our association as striking the optimal balance of energy efficiency and affordability. Tier 2 homes are based on Built Green Energuide80, cost an additional \$8,000 to \$10,000 vs base code, and offer 3 air changes per hour. Built Green also includes water conservation and other environmental attributes not covered by the Step Code.

As noted on page 18 of the province's Step Code report, Tier 3 saves only .5 air change per hour over Tier 2 and at much higher cost. The province's initial cost estimate to VRBA is 5.2% over base code which represents \$20,000 for a 2,000 sq ft single family home. The higher Tiers 4 and 5 (Net Zero) incur further diminished returns saving only 1.5 and 1 air changes per hour with added costs of 8.5% and 12.7 % or \$34,000 and \$50,800 respectively. In fact, our builders estimate the top two Tiers costing at least \$40,000 and up to \$100,000 plus. Natural Resources Canada says they are working on reducing the "risk and cost" of Net Zero homes which "are not yet market feasible due to the large first cost of achieving it (\$100,000 to \$150,000)."

If the goal is to reduce greenhouse gases, a renovation tax credit produces far greater results. A CMHC study demonstrated that a \$40,000 retrofit for an older home, (the vast majority of our housing stock), will reduce air changes from 25.5 to 3.5, a reduction of 22 air changes per hour. Even a small investment will reap large gains compared with reducing air changes in already energy efficient homes. VRBA advocates a renovation tax credit to demonstrate Climate Action leadership in BC, rather than adding significant costs to new homes in Canada's most expensive province – \$100,000 over the national average.

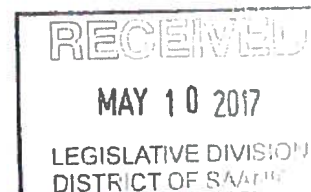
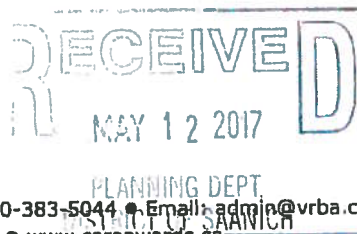
The Step Code's higher Tiers marginally reduce GHG's while significantly increasing the cost of new homes. **In the interests of affordable energy efficiency, VRBA recommends Tier 2, a significant improvement over base code.** In time, we will achieve affordability and proven practice in the higher Tiers - critical to avoiding past unintended consequences such as leaky condo, asbestos insulation and urea formaldehyde which were launched to improve energy efficiency in housing.

Keep in mind, the province's Step Code downloads the responsibility of energy efficiency in the Building Code to municipalities via bylaws, including any accompanying responsibility and/or liability. The Canadian Commission for Building and Fire Codes responsible for Canada's National Building Code has not yet done any reviews, diligence or cost/benefit analyses on these very high energy efficiency standards.

Thank you for the opportunity to provide input, and feel free to contact me for more information.

Yours sincerely,

Casey Edge
Executive Director



COMMENT

 We should not be giving incentives to people to destroy farmland

SEND US YOUR LETTERS

■ **Mail:** Letters to the Editor, Times Colonist, 2621 Douglas St., Victoria, B.C. V8T 4M2

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High-performance buildings will save energy

ROB BERNHARDT

For years, municipalities throughout Greater Victoria have supported better design and construction by encouraging or requiring high levels of energy efficiency and other technical requirements in their bylaws.

They see industry leaders providing better, affordable buildings, and want all residents to have the opportunity to benefit from living and working in such homes and offices.

Developers and builders, however, have found the patchwork of different municipal bylaw requirements confusing, leading to needless expense. Inevitably, the extra costs are passed on to the people who buy or rent the buildings.

However, the slate will be wiped clean this month. The B.C. Building Act, passed in 2015, gives municipalities the opportunity to require better buildings and eliminates the confusion and expense that result from numerous unique regulations in each town.

Under the act, if a local government wants to continue enforcing technical building

requirements for energy efficiency in a bylaw after Dec. 15, the bylaw must reference the province's new Energy Step Code. Local governments face two decisions: Will they continue enforcing energy efficiency-related technical requirements in their building bylaws? If they do, which "step" of the step code will the bylaws reference?

The B.C. Energy Step Code provides a provincewide approach to improving energy efficiency incrementally in buildings beyond B.C. Building Code requirements. It enables local governments to require better buildings for residents in a cost-effective and consistent manner, and is part of a process leading us toward high-performance new and existing buildings across Canada by 2032.

Local governments have many reasons to increase building energy efficiency in their communities. Improved comfort and health, building durability, energy savings and greenhouse gas-emissions reductions are obvious benefits. A building's efficiency is also often a sign of its fundamental quality.

Unfortunately, this kind of quality is almost invisible at the

time of sale and is difficult for buyers to evaluate. A recent federal-provincial agreement to implement energy benchmarking and labelling for buildings will help to address this — as well as increase transparency and consumer protection. Building-performance testing and labelling gives consumers a way to quantitatively assess a prospective home's quality.

Because a home is the largest investment most families make, requiring better building performance today protects them by ensuring their homes maintain market value when the labelling program comes into effect.

That efficient homes are also more affordable is less obvious to people unfamiliar with high-performance building design and construction. Industry leaders in Greater Victoria and around the world are delivering tens of thousands of affordable housing units that meet Passive House levels of performance. Passive House buildings consume up to 90 per cent less heating and cooling energy than conventional buildings.

Doing this successfully and cost effectively requires training and a willingness to innovate

design and construction practices. Many more builders in the region routinely deliver homes that meet or exceed B.C. Energy Step Code levels of efficiency.

Improved efficiency makes these homes more affordable through minimal cost increases and dramatically reduced operating costs.

A comprehensive costing assessment done for the B.C. government confirms the experience of these builders.

Our local governments have consulted extensively in recent months with the public and industry groups such as the Canadian Home Builders Association, Passive House Canada and others. Passive House Canada believes that requiring performance-based measures for buildings is key to ensuring British Columbians live, work and play in better-quality homes, community centres, office towers and apartment/condo buildings.

The Energy Step Code offers a thoughtful and effective path to achieve the high-performance buildings of the future. Recognizing this, Passive House Canada has joined a number of B.C. organizations and companies to urge local governments to adopt

Step 3 in their bylaws immediately and to target higher-level steps in coming years.

Step 3 is something all qualified builders are able to deliver affordably using practices common today, and enables significant emissions reductions — particularly if renewable energy sources such as electricity are used.

Most importantly, Step 3 protects consumers. It requires buildings to be tested and have an energy model — tools that allow consumers to evaluate a home's or building's quality.

By requiring performance-based outcomes, the B.C. Energy Step Code encourages industry innovation and new cost-effective practices. It also will help ensure British Columbians enjoy the same quality of buildings as residents in other jurisdictions experience.

In the end, we all benefit from better buildings.

Rob Bernhardt is CEO of Passive House Canada, a national non-profit association advocating for the Passive House high-performance building standard. He lives in Vancouver Island's first Passive House building.

COMMENT

“Are blinders also standard equipment for cyclists?”

We still have a chance to save our environment 2030 Transforming Our World agenda goes beyond sustainability to restoration

R.W. SANDFORD

A strongly entrenched narrative within our society that has pictured humanity as being somehow above global material and energy cycles, with no need to consider the finiteness of the Earth's resources, has proven to be wrong and dangerous. As a society, we have to come back down to Earth.

If a climate that's warmer than what has existed on this planet for 15 million years is not enough to give us pause about the future, then surely the realization that human-induced impacts occurring in tandem with climate disruption — such as alterations of global nitrogen and phosphorous cycles, ocean acidification and synthetic chemical pollution — are clearly near tipping points that could push the Earth and conditions that support life on Earth into a new and unrecognizable state should be sobering to say the least.

The United Nations responded to the urgency and the opportunity of finally getting sustainable

development right in September of 2015, just before the Paris climate talks. Their response was the announcement of a new framework for action in support of global sustainability.

While it did not receive the same attention in the media, the announcement of the UN's 2030 Transforming Our World global sustainable-development agenda was at least as important as the later climate negotiations in Paris, if only because it deals with damage we are doing to other elements of the Earth system that are exacerbating and being exacerbated by climate change.

We at last have a universally understood and accepted definition for what sustainability really means and a common timetable for implementation of clear goals aimed at achieving measurable targets at both global and national levels.

The 2030 Transforming Our World agenda is constructed around five themes: people, planet, prosperity, peace and partnership. It is also important to

note that this agenda applies equally to the developed world and developing nations. The agenda makes it clear that unless we all take common goals seriously and implement meaningful and measurable actions at the national and sub-national level in every country in the world, now, we will not achieve sustainability globally.

This means there can be no laggards, particularly in the developed world. It also means that the world cannot afford to leave anyone behind.

The 2030 Transforming Our World agenda promises to be the most comprehensive and inclusive effort to change the world positively in all of human history. It is nothing less than a charter for people and the planet for the 21st century.

The 2030 Transforming Our World agenda raises the ceiling on sustainability. The agenda makes it very clear that sustainable development can no longer simply aim for environmentally neutral solutions.

If we are to achieve any meaningful level of sustainability, all development has to be not only sustainable, but restorative. We can no longer simply aim to slow

or stop damage to the Earth system; we have to restore declining Earth system function.

We face so many overlapping and intersecting crises we can no longer afford to fix them one at a time or in isolation of one another.

All future development must seek double, triple, if not quadruple benefits in terms of the restoration of fundamental Earth system function as reflected in biodiversity stability, efficient water use, soil vitality, carbon storage, and human and planetary health.

Canada, and British Columbia in particular, are in a good position to make sustainability possible. Though our society is powered by petroleum and lubricated by oil, it floats on water. Our society is a vessel in its own right. It is a lifeboat carrying us all over water toward the future.

It is impossible to think of a boat carrying societies into the future without thinking of artist Bill Reid's famous Black Canoe, a replica of which is on prominent display at the Vancouver Airport. The Black Canoe is nothing less than a Haida ark; the complete physical reality and spiritual universe of an entire people in one boat, in which everyone and

everything paddles together toward the future.

The Black Canoe is a magnificent metaphor for British Columbia. In addition to spectacular natural landscapes, British Columbia possesses remarkable Indigenous cultures.

Few places in the world are as rich in traditional and local knowledge and in possession of such a deep sense of place.

The opportunity still exists here for everyone to get into that “Black Canoe” and, along with all the animals and the rest of creation, paddle together toward the great promise of living in, and sharing with others, a province that was once deemed — with some justification — the Best Place on Earth.

R.W. Sandford is the EPCOR chair for water and climate security at the United Nations University Institute for Water, Environment Health, and co-author, with former B.C. deputy minister of the environment Jon O'Riordan, of *The Hard Work of Hope: Climate Change in the Age of Trump*, which will be launched following a public talk at 2:30 p.m. today at the David Strong Building C116 at the University of Victoria.

SEND US YOUR LETTERS

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