

Appendix C: Consultation Response Letters

July 26, 2018

Mayor and Council
City of Kelowna
1435 Water Street
Kelowna, BC V1Y1J4

Re: Support for the City of Kelowna's BC Energy Step Code implementation strategy

Dear Mayor and Council;

FortisBC's Conservation and Energy Management group works with residential, commercial, institutional, industrial and educational sectors to promote energy efficiency and conservation. Its Demand Side Management programs provide rebates, community resource support, education and outreach to encourage all its customers to use less energy via efficiency and conservation.

FortisBC has been supporting energy efficient new home construction for 25 years through an evolving series of rebate programs and building contractor educational support. Most recently, the new home rebate program was revised to align with the five steps of the BC Energy Step Code with rebates up to \$8500 per home. FortisBC is also collaborating with the Province of British Columbia, BC Hydro and BC Housing to provide building contractor and trade specific educational support.

The BC Energy Step Code provides an incremental and consistent approach to achieving more energy-efficient buildings. The approach is measureable and performance-based, ensuring buildings perform as planned. It offers builders the flexibility to pursue innovative, creative and cost-effective solutions. The Province has indicated the BC Building Code will move towards the higher steps of the BC Energy Step Code by 2032. Similarly, the federal government is moving towards adopting a net zero energy ready building code by 2030.

Adopting the BC Energy Step Code in the controlled approach put forward by the City of Kelowna comes with a number of benefits:

- Consistency with British Columbia's energy and greenhouse gas (GHG) emission reduction objectives. Ongoing savings will assist the Province in meeting its 2050 target of reducing GHG emissions to 80% below 2007 levels
- Consistency with City of Kelowna's Official Community Plan and Climate Action Plan GHG emission reductions (4 per cent below 2007 levels by 2023, 25 per cent below 2007 levels by 2033, 80 per cent below 2007 levels by 2050)

- Consistency with FortisBC's energy efficiency and conservation goals
 - Natural gas: 3.99 million GJ savings and 206,000 tCO₂e over next four years
 - Electricity: 131.4 GWh savings and 2,168 tCO₂e over the next four years
- Increased support for innovative technologies that stimulate energy efficiency (as high-performance designs, materials and systems become increasingly available, builders will have the opportunity to incorporate them into their design)
- Lowering energy consumption helps provide protection from future increases in energy prices
- Improved indoor air quality, comfort and durability
 - Mechanical ventilation will become more common in homes built to the BC Energy Step Code helping to provide better air quality by design
 - Greater comfort—an energy-efficient building envelope will make occupants feel more comfortable at equivalent indoor temperatures due to reduced drafts and temperature variations in the home
 - Increased insulation levels and better windows can reduce sound transmission from outside
 - Superior insulation combined with regionally appropriate windows and proper building science techniques will result in a building envelope that can stand the test of time. The home will effectively shed water minimizing the risk of mold, mildew and costly renovation.

The City of Kelowna has a visionary path outlined for the growth of the community. Implementation of the BC Energy Step Code is one tool to achieve this vision while enhancing the resiliency of the built form.

Sincerely,



Danielle Wensink
 Director, Conservation and Energy Management
 FortisBC Inc.



August 13, 2018

Bill MacKinnon
Senior Manager, Energy Management
1701 - 4555 Kingsway, Burnaby, BC V5H 4V8

City of Kelowna
1435 Water Street
Kelowna BC, V1Y 1J4

RE: Energy Step Code Implementation Plan

Dear Sir or Madam:

I am writing in support of the City of Kelowna's Energy Step Code Implementation Plan. BC Housing supports policy that prioritizes simple and equitable approaches to achieve durable energy efficiency in new buildings. These approaches include better envelopes, efficient ventilation design, and airtightness, with due consideration to the needs of the occupants and their communities. It appears that this policy enables the following outcomes:

- Reliable energy use reductions
- Improved comfort and indoor air quality
- Small or no increase in construction costs, with decrease in operational costs

BC Housing is already targeting Step Code level three for Part 3 buildings and Step Code level four for Part 9 buildings for our fully funded projects in Kelowna and the Southern Interior. Based on the results of our Step Code Metrics Costing Study we believe that requiring Step Code compliant projects will increase comfort affordability and durability in the long-term.

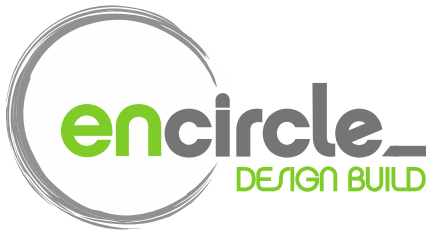
The lower steps of the Provincial Energy Step Code are readily achievable with off-the-shelf technology and knowledge and training that already exists in the building sector including many BC Housing resources. Starting with step one for part nine buildings will allow the sector to see their buildings modelled, along with suggestions for improvement, and to gain experience with blower door testing which will give them guidance on where to improve air sealing.

I commend the City for its leadership in green building policy, and look forward to continue our work with the City, together with our provincial and national partners, to improve affordability, quality, sustainability and resilience of housing in B.C.

Sincerely,

A handwritten signature in black ink, appearing to read "B. MacKinnon", with a stylized, flowing script.

Bill MacKinnon



1671 Lambert Ave. Kelowna, BC V1Y 4H7
250.979.8005 Deren@encircle.ca

July 25, 2018

To Whom It May Concern:

I Deren Sentesy owner of En Circle Design & Build Inc. strongly support the city of Kelowna and your adoption of THE STEP CODE program.

As Chair of the Cascadia Region Green Building Council we have never before had an opportunity to help more people. Support of THE STEP CODE will benefit every person in the Okanagan. By adopting a program similar to Vancouver we will set our city ahead of every other jurisdiction. And get us ready for a Net Zero future.

THE STEP CODE will bring about a market transformation that will effect change in our housing stock. As energy prices rise this will also make an impact on our affordable housing by establishing measurement of Building performance. This simple act, even if nothing else is done, will ensure the buildings in Kelowna will be far better than the houses we were building in 1970, or code minimum.

En Circle has been spending years working in the field. In our experience to make a building efficient and well insulated increases the cost of construction by less than 2%. For STEP CODE ONE the cost is less than \$500. The savings over the life of a building provide ongoing return on investment (ROI) unlike granite countertops and big screen TV's.

We thank you for your support of our projects and looking forward to build communities that are Socially Just, Culturally Rich and Ecologically Restorative.

Sincerely,

Deren Sentesy
Owner of En Circle Design & Build

July 13, 2018

Via email:

City of Kelowna, City of Vernon, City of West Kelowna, District of Coldstream, District of Lake Country, District of Peachland.

Attention: Building, Planning Department, Council
Re: Implementation of the B.C. Energy Step Code

The Canadian Home Builders Association of the Central Okanagan (CHBA-CO) applauds the ongoing efforts by Central Okanagan cities and municipalities to ensure a uniform and collaborative approach to the Energy Step Code. The CHBA-CO has attended several round table discussion groups with municipalities and we are encouraged by the open dialogue between stakeholders.

For clarification, CHBA BC has been involved in the Step Code Council since it was established. CHBA British Columbia participated in this initial working group, which later became the B.C. Energy Step Code Council, because there was a need to look at efficiencies across local government boundaries and various programs created to meet local climate targets, more specifically focused in the Lower Mainland and South Coast. In addition, as a Service Organization for energy advisors, CHBA BC wanted to ensure sufficient quality assurance and training measures for energy advisors were part of the discussion.

CHBA BC currently is involved directly through the following:

- Participation on the B.C. Energy Step Code Council;
- Compliance and Energy Advisor Sub-Committee;
- Technical Support Sub-Committee;
- Communications Sub-Committee.

However, CHBA BC's participation on the B.C. Energy Step Code Council **does not indicate widespread endorsement** across the province, especially in areas where no previous energy-efficiency bylaw existed, or no incentives are provided. Each municipality should be evaluated separately using outlined criteria, and factoring costs and capacity into all decisions.

Consumer choice

The purported motivation for these regulations is to reduce energy consumption. The CHBA CO is supportive of this motivation but feels that consumer education, not mandated policy, will yield greater results.

The CHBA CO is concerned energy efficiency mandates do not promote conservation. In fact, by lowering the cost of energy use, they provide an incentive to use more energy, reversing some of the desired energy savings. For example, installing LED lighting can increase the incentive to leave the lights on longer due to a perception they cost less to run. In addition, in CHBA CO's view, the additional code costs far exceed what could be saved on energy bills over a reasonable payback period.

79th Nobel Prize for Economics recipient Richard Thaler and Sunstein's seminal book titled "Nudge", is one of the most quoted and influential books in social sciences in the past few years. Barack Obama, an enthusiastic follower acknowledges the relevance of choice architecture to promote healthier decisions by individuals.

The policy implication of behavioral economics is to use less intrusive approaches to regulation, such as information policies and incentives, to correct behavioral failings. If the problem is consumers or industry are making bad decisions due to behavioral biases, then the "Nudge" approach should be to provide information to help them make better decisions, not mandate policy.

Local Builder Input and Costing Data in Decision-Making

In local consultations of all types, CHBA CO should be considered the authoritative voice for the Step Code rollout in the Central Okanagan. As builders on the ground each day, members are best positioned to speak to costing, timelines, capacity, and any other problems established.

CHBA CO also affirms that its local builders are positioned to speak on concerns with presented costing data. It should be noted that data provided in government costing studies only focuses on the lowest-cost scenario. It also does not confirm that lowest-cost technologies are readily available, nor that trades costs would not change or increase. Housing affordability is a significant issue in B.C., and cost-benefit analyses should take place for all decisions.

A recent announcement of changes to the modeling matrix indicates that all studies done to date by municipalities, Fortis, and Energy Advisors are now out dated and inaccurate. CHBA BC is currently engaged in a Step Code cost and impact analysis with all 9 local associations across BC. The analysis will consider the new matrix values, building designs consistent with typical buildings constructed within the 9 regions, a minimum of 3 building options to achieve each level of the Step Code, and costing provided by a minimum of 3 licensed builders per region – 27 independent licensed builders total. To the best of our knowledge, we are not aware of any direct member

Canadian Home Builders' Association Central Okanagan

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engagement in existing provincial studies. This demonstrates the need for separate industry-driven data.

Recommendations

The CHBA CO encourages Central Okanagan building authorities to remain engaged with their local CHBA and to continue their collaborative approach to the Energy Step Code. It is not, and should not be considered, a bad approach to seek changes **only in coordination with the provincial building code.**

CHBA CO requests all Central Okanagan cities and Municipalities suspend mandatory implementation of the BC Energy Step Code until the CHBA BC cost analysis is complete for the Central Okanagan region.

Municipalities can, in the meantime, provide voluntary municipal incentives for builders and homeowners that would like to use the Step Code framework in their upcoming builds.

A voluntary and incentive approach will still create opportunities for municipalities and industry to gain the data required to implement steps should the Step code become adopted into the building code at a later date.

Sincerely,

CHBA CO Step Code Committee,
CHBA CO Board of Directors

August 3, 2018

CHBA CO Step Code Committee and CHBA CO Board of Directors
Canadian Home Builders' Association Central Okanagan
216 - 1884 Spall Road
Kelowna, BC
V1Y 8T5

Re: Implementation of the BC Energy Step Code in Kelowna

Dear CHBA CO Step Code Committee and Board of Directors:

Thank you for your response, dated July 13, 2018, regarding implementation of the BC Energy Step Code. The City of Kelowna values its relationship with the Canadian Home Builders' Association Central Okanagan (CHBA CO). The City is confident that the CHBA CO can play a leadership role in improving energy efficiency in new construction in the region.

The BC Energy Step Code is a provincial standard that provides the steps to move towards all new construction being "net-zero energy ready" by 2032 and aligns with the federal Pan-Canadian Framework which calls for increasingly stringent model building codes. In a recent provincial *Clean, Efficient Buildings Intentions Paper*, the Province announced its intention and proposed transparent timelines for the implementation of the Energy Step Code. Compared to the current BC Building Code, new homes would have to reach the following standards:

- 20 per cent more energy efficient by 2022 (equivalent to Step 3 for Part 9 buildings)
- 40 per cent more energy efficient by 2027 (equivalent to Step 4 for Part 9 buildings)

The Province of BC states that the first three years (2017-2020) are to serve as a transition period to allow time to build capacity to learn to apply the regulation and achieve better performing buildings. Further, local governments can only cite lower steps in their policies and regulations during this time. CHBA BC encourages "*incentives, a gradual, predictable, transition to higher steps, and support for builders to protect affordability with these new changes.*" While staff recognize that CHBA CO's view differs, the City of Kelowna's approach is consistent with the straightforward recommendations encouraged by the provincial organization.

In your letter, three recommendations for Step Code in the Central Okanagan are provided. The information provided below illustrates how these recommendations are being addressed in the City's proposed Energy Step Code Implementation Strategy.

CHBA CO Recommendation 1:

It is not, and should not be considered a bad approach to seek changes only in coordination with the provincial building code.

Staff are recommending a gradual and predictable transition to higher steps. Step 1 of the Energy Step Code be endorsed starting April 1, 2019 for Part 9 residential buildings. Step 1 is designed to familiarize builders with measuring energy efficiency, however construction of the building remains the same as base BC Building Code. Further, Step 1 will show builders how energy efficient they are currently constructing homes to allow for an easy

¹ Canadian Home Builders' Association British Columbia. BC Energy Step Code. <http://chbabbc.org/government-relations/bc-energy-step-code.html>

transition to Step 3 for Part 9 residential buildings proposed for October 1, 2020. Future iterations of the BC Building Code will require Energy Step Code compliance as per above timelines, and this transition period is an opportunity to enable the local market to mature and to spur increased industry capacity for services and products that support higher performing buildings. The upper steps are not being considered beyond incentives at this time. Staff will monitor readiness and capacity as Kelowna transitions through the steps to ensure major issues of capacity, education and training are adequately addressed.

CHBA CO Recommendation 2:

CHBA CO requests all Central Okanagan cities and municipalities suspend mandatory implementation of the BC Energy Step Code until CHBA BC cost analysis is complete for the Central Okanagan region.

Affordability continues to be a concern for the City, which is one of the reasons why implementing the Energy Step Code was an action of the Healthy Housing Strategy, recently endorsed by Council. Increasing energy efficiency in new builds will reduce utility costs and overall household carrying costs for the life of the building. It is far more economical to build efficiently than to retrofit a building later. Organizations, such as BC Housing, are choosing to have all of their projects built to Step 3 for Part 9 buildings and Step 4 for Part 3 buildings, to ensure operating costs for their tenants remain low.

The performance pathway under section 9.36.5 of the BC Building Code has been available since December, 2014. These requirements form the basis for Step 1 compliance. As such, cost implications for the performance pathway have been incorporated into the housing industry for the last four years. Given the trade-off allowance, the flexibility in design and the choice of materials or equipment, performance path or Step 1 has the potential to produce less expensive outcomes using Hot2000 modelling software than the prescriptive path in spite of the cost of an Energy Advisory/modeler.

Further, with the Province's proposed technical refinements of the Energy Step Code, they are reporting that that overall costs would remain consistent with those outlined in the *BC Energy Step Code Metrics Research Report* which will be updated and released later this year.² The City looks forward to obtaining this report, as well as CHBA BC cost and impact analysis for its nine regions so comparisons can be made and construction cost effects can be understood.

CHBA CO Recommendation 3:

Municipalities, can in the meantime, provide voluntary municipal incentives for builders and homeowners that would like to use the Step Code framework in their upcoming builds.

The City of Kelowna staff are recommending incentives in the Step Code Implementation Strategy. To encourage higher steps, staff will be proposing building permit fee rebates for steps 4 and 5 (these are in addition to the up to \$8,500 in rebates that FortisBC is currently offering). Further, staff will be proposing to reduce minimum side, rear and front yard requirements to accommodate thicker walls for insulation that are associated with step 5 of the Energy Step Code.

Locally, when you compare the number of building permits issued with incentives and education offered, it is easy to see the importance of regulation in achieving wide scale change. Between 2015 and 2017, the City of Kelowna issued 2,218 building permits for single detached homes. During this same time period, builders could choose to use the performance pathway (Section 9.36 of the BC Building Code) for construction, however, only 6 permits were issued using this option. Another example is the incentives, education and supports offered by FortisBC to

² Summary of Proposed BC Energy Step Code Technical Refinements and Additions Energy Step Code Council Backgrounder, July 19, 2018.

encourage more energy efficient new buildings. During the two-year period Fortis Energy Star program and incentives were available, only 21 homes in Kelowna were constructed to that standard.³

Next Steps:

City of Kelowna staff will be presenting its recommendations for Step Code to Council later this summer. CHBA CO's letter will be included with this package along with input from other stakeholders in the community. In order to prepare and build capacity for the local building industry for the upcoming provincial regulations, City staff would like to work with CHBA, CO on training opportunities to ensure a smooth transition.

Implementing Energy Step Code also helps put Kelowna on the path to reduce energy and greenhouse gas emissions as identified in the recently endorsed Community Climate Action Plan. Our goal is that all parties will work together towards becoming an energy efficient, liveable, responsible and sustainable community.

Sincerely,



Derek Edstrom, Acting Divisional Director of Community Planning & Strategic Investments

cc:

Mo Bayat, Development Services Director, City of Kelowna

Danielle Noble-Brandt, Policy and Planning Department Manager, City of Kelowna

City of West Kelowna

District of Lake Country

District of Peachland

City of Vernon

City of Penticton

³ Tanya Rumak, Program Manager, Conservation and Energy Management Fortis BC. Personal Communication, 2018-08-01.