

May 3, 2017

Mayor Helps and Council  
City of Victoria  
1 Centennial Square  
Victoria BC V8W 1P6

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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