



28 February 2018

To:

Devon Miller, Community Energy Planner,
Sustainable Planning and Community Development,
City of Victoria
by email: dmiller@victoria.ca

Dear Mr. Miller,

Re: City of Victoria proposed approach to the Step Code for building energy efficiency

Introduction

Thank you for the opportunity to comment on the City of Victoria's proposed approach to the Step Code for building efficiency and the City of Victoria's staff report to the Committee of the Whole, *Direction to Consult with Industry on Proposed Approach to BC Energy Step Code* (attached to the Committee of the Whole Agenda for 18 January 2018).

The BC Sustainable Energy Association, Victoria Chapter (BCSEA, Victoria Chapter) commends Victoria for engaging the development industry on the Step Code, and for adopting a collaborative, regionally coordinated approach to improving the energy efficiency of buildings. We also commend Victoria for adopting climate action targets in line with the urgent need to reduce global greenhouse gas (GHG) emissions, and for adopting the parallel target of achieving 100% of Victoria's energy needs with renewable energy by 2050.

BCSEA, Victoria Chapter is a chapter of a not-for-profit association of citizens, professionals and practitioners committed to promoting the understanding, development and adoption of sustainable energy, energy efficiency and energy conservation in British Columbia. BCSEA supports the province's transition to a lower-carbon economy. BCSEA, Victoria Chapter has approximately 135 members in the Greater Victoria area.

Energy conservation and the 100% Renewable Energy by 2050 Target

Increasing the energy efficiency of buildings will be critical for Victoria to achieve its climate and energy targets, as it will be critical for most jurisdictions in the world, including British Columbia and Canada. While replacing fossil fuel powered heating systems with systems powered by renewable electricity will eliminate GHG emissions, it is also important to minimize the amounts of energy used so as to minimize energy costs, including the costs to develop additional generation resources.

At the resource planning level, BC Hydro is assumed to be the main provider of electricity to Victoria, now and in the future. BC Hydro has received a new mandate from the BC government to pursue low-carbon electrification (Order in Council 101-2017: *Low carbon electrification amendment to the Greenhouse Gas Reduction (Clean Energy) Regulation*, B.C. Reg. 102/2012, under the *Clean Energy Act*); however it will be challenging for BC Hydro to keep the cost of electricity down as it fulfills this mandate.

Some distributed electricity generation – particularly solar photovoltaic (PV) – will also likely be developed in Victoria, displacing some of the demand on BC Hydro's system. There too, it will be important to use the resource efficiently to keep costs affordable.

BCSEA strongly supports the maximum achievement of “negawatts” – the avoided use of energy – through optimum building insulation, advanced ventilation systems and heat pump heating equipment powered by renewably produced electricity.

In *100% Renewable Energy by 2050 Pathway for the District of Saanich* (2017), BCSEA, Victoria Chapter identified very high efficiency standards for new buildings as a necessary part of a strategy for the District of Saanich to achieve a target of meeting 100% of its 2050 energy needs with renewable energy. We believe the same applies to the City of Victoria (with appropriate adjustments for differences in building stock and likely amounts of new construction over the next 32 years).

Victoria's proposed approach to the BC Energy Step Code

1. The phased approach of achieving Step 3 (or Step 2 for garden suites) by 2020 recommended by City staff seems generally reasonable. It is understood that this represents a compromise between (a) achieving the highest efficiency standard, (b) the need for the building industry to prepare for this and (c) the need to coordinate efforts across the capital region. BCSEA supports these objectives.

However, we are concerned that there is no schedule to achieve Steps 4 and 5.

BCSEA understands there is opposition to adopting these higher steps. One argument is that more cost-effective savings could be achieved by targeting the existing building stock. BCSEA agrees that the existing building stock can and should be targeted for many cost-effective energy savings. Indeed, BCSEA supports a general, province-wide upgrade to the energy efficiency of BC's building stock.

But improving existing buildings should not detract from achieving the highest practical energy standards for new construction. As discussed below, the proper test for the appropriate energy efficiency step to adopt is the top-down test of how much efficiency is required of new buildings to achieve 100% RE by 2050.

2. BCSEA recommends the City of Victoria explicitly relate its approach to the Step Code explicitly to its 100% Renewable Energy by 2050 target, i.e. quantify

the energy use and GHG emissions associated with the approach to the Step Code in relation to the energy use and GHG emissions targets of the 100% RE by 2050 target (including all energy uses, not just buildings). Steps 4 and 5 may well be needed to achieve the overall target and should not be assumed to be an alternative to retrofitting existing buildings.

Likewise, the cost implications of the Step Code should be put in context. The *BC Energy Step Code 2017 Metrics Research Study* quantifies the costs of the Step Code. These should be considered in relation to the overall costs and benefits of acting on climate change or failing to do so. BCSEA acknowledges that this will be difficult, but it should not therefore be omitted from decision-making. There is short-term urgency for cutting costs in relation to current market pressures. But the longer-term benefits of achieving high levels of energy efficiency should ultimately take precedence, if we are to optimize our future well-being.

3. The savings of the Step Code steps should be presented in terms of their contribution to the 100% RE by 2050 target. For example, Figure 1 of the report (page 2) shows the steps in terms of improvement over the current BC Building Code. This does not present the required information.

4. Although we recognize it is not the subject of the present report, BCSEA strongly recommends that the City of Victoria plan for a general upgrade to the energy efficiency of the City's existing building stock, and coordinate this with planning for the efficiency of new construction. This will be necessary to achieving the 100% RE by 2050 target. There may be opportunities to coordinate this with similar actions across BC, as society becomes more aware of the need for energy efficiency and climate action.

5. Again recognizing that it is not the subject of the present report, BCSEA strongly recommends that the City of Victoria support the speedy implementation of a system of labeling of the energy efficiency of homes and other buildings. Buyers and renters have the right to this information, and it necessary to ensure that the Step Code standards are actually achieved.

6. BCSEA also recommends that the City allocate adequate resources to monitoring compliance with mandated energy efficiency standards, to ensure that they are achieved in fact and not just on paper. This may overlap partly with provincial responsibilities. BCSEA believes non-compliance with current building codes contributes significantly to poor energy performance in existing buildings.

Sincerely,



BCSEA Policy Advisor