

## BULLETIN 1: THE BC ENERGY STEP CODE AND HOME ENERGY LABELLING

The intent of this bulletin is to provide guidance on how local governments adopting the BC Energy Step Code for Part 9 buildings can, at no additional cost to the builder, ensure homebuyers have access to a home energy label that provides information about the comparative energy performance of the home.

Home energy labels are recognized as an important tool and mechanism to enable energy efficiency considerations within market transactions, such as home construction and real estate. Transparency through labelling has become standard practice in many facets of our lives, from food nutrition to vehicle fuel economy; however, prospective homeowners are left in the dark about the energy efficiency and ongoing operating costs of what is likely the largest investment of their lives.

A **home energy label** is an informational tool, produced by a trusted and recognized third-party, and designed to provide consumers with recognizable and comparable information about the modelled energy consumption of a home.

The energy modelling and air testing requirements of BC Energy Step Code compliance generates the information contained within home energy labels. Local governments that are adopting, or have adopted, the BC Energy Step Code for Part 9 buildings should work with their building officials to establish *administrative requirements* that complement their BC Energy Step Code bylaw and enable consumer access to energy labels.

**The following local government administrative requirements are provided as a guideline:**

1. Require the submission of the [BC Energy Compliance Report – As Built](#), with Section F completed.
2. Require the submission of a home energy label, including EnerGuide Rating System, Passive House Certification, or an acceptable standard comparable energy label (see Appendix 1).
3. Require a home energy label to be permanently affixed somewhere visible in the home (on or near the electrical panel), prior to the issue of the occupancy permit.
4. Inform the builder that the information on the home energy label may be publically disclosed online. Because a home energy label does not include any personal information, local governments will not be restricted in home energy label collection, use, or disclosure by the Freedom of Information and Protection of Privacy Act.

The above noted administrative requirements are *an enabling first step* to provide homeowners with access to energy performance information. The use of energy labels as a foundation to increase industry and public awareness and ultimately, to drive demand for energy efficient new homes is a longer term objective that requires collaboration among stakeholders and all levels of government.

## Appendix 1: Acceptable Standard - A Comparable Energy Label

The BC Building Code outlines that the energy performance measurement of the BC Energy Step Code can be conducted by the following stakeholders:

- ✓ Energy Advisors, Registered with Natural Resources Canada
- ✓ Certified Passive House Designer or Consultant, Approved by the Passive House Institute
- ✓ Others using modelling software tested in accordance with ANSI/ASHRAE 140 *Evaluation of Building Energy Analysis Computer Programs*

As a result, there may be different types of energy models produced which may not automatically generate a formal energy label that can be permanently affixed in the home, provided to the local government, or publically disclosed.

It is recommended that in order to advance consumer access to home energy labels, local governments should require the submission of an EnerGuide Rating System energy label, a Passive House Certificate *or* an acceptable standard comparable energy label.

This comparable energy label can be used when:

- Energy modelers are using software tested in accordance with ANSI/ASHRAE 140 *Evaluation of Building Energy Analysis Computer Programs*
- Energy advisors not registered with the EnerGuide Rating System use Hot2000 to model a home and produce a BC Energy Compliance Report
- Registered energy advisors are using Hot2000 but are unable to produce a formal EnerGuide Rating System home energy label. For example, when energy advisors use HOT2000 to model an attached home (townhome or row home) as-a-building rather than as a unit. When EnerGuide Rating System energy advisors are using alternate energy modelling and blower door testing procedures they are not able to produce an EnerGuide home energy label.

An acceptable standard comparable energy label would allow for stakeholders to receive comparable home energy performance information, for an energy label to be permanently affixed in the home, for energy label information to be posted on online platforms and for the energy label to be integrated into the home sale listing process. The chart below provides the recommended information that should be requested as part of an acceptable standard comparable energy label.

Recommended Information for an Acceptable Standard Comparable Energy Label

<b>Address</b>	<ul style="list-style-type: none"> <li>The street address of the home</li> </ul>
<b>Modeler</b>	<ul style="list-style-type: none"> <li>The date that the evaluation was conducted</li> <li>The company name and name of energy modeler that conducted the evaluation</li> <li>The name of the entity that provides quality assurance</li> </ul>
<b>Energy Rating</b>	<ul style="list-style-type: none"> <li><b>The Energy Rating:</b> Energy Consumption of the home in GJ per year, with baseloads</li> <li><b>Reference House Energy Rating:</b> Reference house energy consumption in GJ per year, with baseloads</li> </ul>
<b>Energy Metrics</b>	<ul style="list-style-type: none"> <li><b>Rated Annual Energy Consumption:</b> Energy consumption GJ per year, broken down by fuel type (Natural Gas, Electricity, Oil, and Propane)</li> <li><b>Breakdown of Rated Annual Energy Consumption by system:</b> Percentage of total energy consumption GJ per year by each different system (space heating, space cooling, water heating, ventilation, lights &amp; appliances, and other electrical)</li> <li><b>Rated On-site Renewable Energy Contributions:</b> Energy generated annually from on-site renewable sources (solar PV, wind, solar hot water)</li> <li><b>Rated Energy Intensity:</b> Measured in gigajoules per square meter per year</li> <li><b>Rated Greenhouse Gas Emissions:</b> Annual amount of greenhouse gases emitted in tonnes/year</li> <li><b>Total Heated Floor Area:</b> The sum of the usable heated floor area of the building or unit, including all above-grade heated areas regardless of ceiling height, and all below-grade heated areas, such as basements, with a ceiling height of more than 1.2m</li> </ul>

About this Bulletin

This bulletin is a product of the *Put a Label On It: BC Energy Step Code and Home Energy Labelling Report* (2018), completed by [City Green Solutions](#) and funded by [BC Hydro](#) in collaboration with local governments. The full *Put a Label On It* report is available on the BC Energy Step Code website ([www.energystepcode.ca](http://www.energystepcode.ca)) as of August 2018.

We invite Local Government staff interested in sharing lessons on applying the BC Energy Step Code to join the **Local Government Energy Step Code Peer Network** by contacting [sustainablecommunities@bchydro.com](mailto:sustainablecommunities@bchydro.com).

