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The BC Energy Compliance Reports - Performance Paths for Part 9 Buildings

This Bulletin provides a plain-language description of the BC Energy Compliance Reports – Performance Paths for Part 9 Buildings. It is intended for building officials or others who would like a short explanation of what the reports are, who they are for, and how they can be used.

What are the reports?

The BC Energy Compliance Reports - Performance Paths for Part 9 Buildings ('Compliance Reports') are standardized report templates for Part 9 buildings complying with Subsection 9.36.6. (Energy Step Code) or 9.36.5. (Energy Performance Compliance) of the BC Building Code (BCBC). The Compliance Reports are intended for use with all Part 9 residential buildings (i.e., detached homes, multiplexes, row housing and Part 9 low-rise apartments).

Who are the reports for?

The Compliance Reports can be used by:

- Energy Advisors (EAs) and other qualified energy modellers, to produce a standardized compliance report;
- Builders, to translate an energy model into a BC Energy Step Code report;
- Local governments, to verify that builders are complying with a bylaw or policy that references a level of the BC Energy Step Code (e.g., Step 3); and
- Local governments and utilities, to process incentives or rebates that may be aligned with BC Energy Step Code metrics.

How can the reports be used?

The Compliance Reports are designed to facilitate compliance with the requirement for a House Performance Compliance Calculation Report in Division C of the BCBC. This mandatory report outlines the information required to demonstrate a building meets the energy performance requirements of the BCBC. The Compliance Reports contain all of the information required and present it in the order established in the wording in the BCBC. When completely and correctly filled out, the reports provide local governments with a consistent and convenient approach to gathering the information needed to check for compliance with BCBC Subsection 9.36.5. or 9.36.6. Each local government may use and/or rely on the Compliance Reports at their discretion.

How many reports are there?

There are two Compliance Reports for Part 9 residential buildings:

1. **Pre-Construction Report:** An Energy Advisor or qualified energy modeller completes the Pre-Construction Report during the design phase, prior to construction of the building. This Report represents the proposed building.
 - The building owner (or their representative) submits this report to a local government with their building permit application. Local government staff can complete the Building Permit # field after the report is submitted.
2. **As-Built Report:** An Energy Advisor or qualified energy modeller completes the As-Built Report when construction is complete.
 - The building owner (or their representative) submits this report to a local government after construction or when the local government requests it.

What information is in the reports?

Both Compliance Reports require information in five sections:

- **Section A - Project Information:** Provides general information about the project and the proponent, the chosen compliance path, and the software used by the Energy Advisor or qualified energy modeller.
- **Section B - Building Characteristic Summary:** Summarizes the key characteristics of the building that enable it to achieve its modelled energy performance. Column 2 of the Compliance Reports is used to indicate the specifications (for each characteristic) upon which the model is based. Some examples:
 - Exterior Walls, Rim Joists: e.g.: 2x6 @16" o.c. R-16 effective
 - Foundation Walls, Slabs: e.g.: R10 perimeter insulation (48" wide) and R5 minimum slab edge insulation
 - Fenestration and Doors: e.g.: Double glazed, soft coat low-e, argon gas fill, insulated metal spacer, slider windows with vinyl frames; U-value 1.80 or less. [Note: FDWR refers to the Fenestration and Door area to gross Wall Ratio, as per BCBC Sentence 9.36.5.14.(10), Div. B and restated differently at Clause 2.2.8.2.(1)(c), Div. C.]
 - Space Conditioning (Heating and Cooling): e.g.: Natural Gas, Condensing Boiler; AFUE 90%; Air source heat pumps: HSPF 7.5, SEER 13.5
 - Service Water Heating: e.g.: Domestic Hot Water - Electric Conventional tank, 170 L, Standby Loss 53
 - Ventilation: e.g.: Energy recovery ventilators - HVI certified HRV; 70% SRE minimum efficiency
 - Other Energy Impacting Features: e.g.: Drain water heat recovery units: minimum 2" diameter and 52" length unit on 2 showers; 42% thermal efficiency
- **Section C - Energy Performance Compliance, and Section D - Energy Step Code Compliance:** Provide energy compliance information depending on whether the building complies with BCBC 9.36.5. (Section C) or 9.36.6. (Section D). Only one of these sections needs to be completed.

- **Section E - Completed By:** Provides information about the Energy Advisor or qualified energy modeller who completed the Compliance Report in case local government building officials have questions about it. Energy Advisors are required to list their Service Organization. If there is an issue with the Compliance Report, the local government should contact both the Energy Advisor and their Service Organization, or the qualified energy modeller.
- **Section F – Other Energy Modelling Metrics, and Section G: Optional Certifications:** The information in these sections is not required by the BCBC. Local government staff can advise their building community if they want any of the fields completed.

What other resources are available?

The Compliance Reports have an accompanying Instruction Manual and Compliance Report Calculator, both designed specifically for use by EnerGuide Rating System Registered Energy Advisors. The Instruction Manual is technical in nature and provides:

1. General guidelines for Registered Energy Advisors and energy modellers for using the Compliance Reports.
2. A table of instructions for completing the Compliance Reports.
3. Details on how to use HOT2000 to calculate the BC Energy Step Code metrics (Section D) of the Compliance Reports (see sidebar for details).

Where are the reports available?

All resources related to the Compliance Reports are available at www.energystepcode.ca, including:

1. Pre-Construction Report (a fillable PDF document)
2. As-Built Report (a fillable PDF document)
3. The Compliance Report Instruction Manual for Registered Energy Advisors
4. The Compliance Report Calculator (an Excel file)

More Information

Please visit www.gov.bc.ca/buildingcodes or www.energystepcode.ca.

Questions related to this Bulletin can be directed to CodeQuestion@gov.bc.ca.

HOT2000

HOT2000 is an energy simulation and design tool for low-rise residential buildings. The software is developed by Natural Resources Canada (NRCan) to support the EnerGuide Rating System, ENERGY STAR for New Homes, and R-2000 residential energy-efficiency initiatives.

NRCan provides two versions of the software: HOT2000 for general use and HOT2000 for use in training and by energy advisors.

For more information, visit

<http://www.nrcan.gc.ca/energy/efficiency/housing/home-improvements/17725>.