Bulletin

Green Buildings Policy for Rezoning – Process and Requirements

Effective July 22, 2010
Amended June 25, 2014, June 8, 2015, January 14, 2016, April 28, 2017, June 14, 2019, June 14, 2022, August 17, 2022, July 27, 2023, December 3, 2024
Authority: Director of Planning
(Applies to rezoning applications from December 3, 2024 to April 10, 2025)

CITY OF VANCOUVER

1 RELEVANT BY-LAWS AND POLICIES

- Green Buildings Policy for Rezonings; and
- Vancouver Building By-law.

2 BACKGROUND AND CONTEXT

In July 2010, Council approved the *Green Buildings Policy for Rezonings* ('the Policy') setting out requirements for all applicable developments applying for rezoning to help transition industry toward more sustainable building practices. Subsequent amendments to this Policy in 2014, 2017 and 2018 updated requirements as the local development industry gained capacity in green building design and construction practices and new priority topics emerged.

This Bulletin ('the Bulletin') was developed to advise applicants of the required submissions related to the Policy, last amended by Council on November 27, 2024.

3 APPLICABILITY

This Bulletin applies to Rezoning Applications received on or after November 27, 2024. Developments receiving rezoning approvals under previous versions of this Policy may refer to the Zero Emissions Buildings webpage for more information on the applicable Policy and supporting Bulletin versions.

In-stream or Previously Rezoned Developments

Rezoning applications received prior to November 27, 2024 that have not yet been referred to public hearing for Council's decision as of November 27, 2024 may choose to meet the current Policy or the preceding version.

Developments that received rezoning approval under the 2014 version of the Policy (effective date June 25, 2014 to April 30, 2017) and have not received their Development Permit Prior-To-Permit-Issuance letter may voluntarily respond to the requirements in the 2018 version of the Policy (effective date May 1, 2018 to May 17, 2022) in its entirety, as either version is accepted as achieving the rezoning conditions related to the Policy. Developments that received rezoning approval under the 2017 or 2018 versions of the Policy (effective dates May 1, 2017 to May 17, 2022) shall continue to meet requirements under those versions of the Policy.

Renovations

This Policy applies to new buildings (including additions) and reconstructions[1]. Renovations of existing buildings that are not reconstruction must continue to meet all building code and upgrade requirements, and are encouraged to incorporate the requirements of this Policy where possible.

4 REQUIREMENTS

4.1 Requirements for Reporting of Green and Resilient Building Measures

This requirement applies for all developments containing Part 3 buildings (as defined by the *Vancouver Building By-law*), except those rezoning to RM-8A, RM-8AN, and RR-1 district schedules.

Rezoning applications to CD-1 zones shall include the design reports outlined in Sections 4.1, 4.2 and 4.3 of this bulletin.

Rezoning applications to district schedules containing Part 3 buildings (RR-2A/2B/2C, RR-3A/3B, and I-C1, etc.) shall include a Letter of Commitment from the project owner to submit the design reports outlined in Sections 4.1, 4.2, and 4.3 of this bulletin at the time of Building Permit application (first above grade or full construction stage).

4.1.1 Embodied Carbon Limits

4.1.1.1 Submission Requirements

Developments must provide the latest version of the *Embodied Carbon Design Report*[2], showing the inputs and results of a whole-building life-cycle assessment (LCA) as per the City of Vancouver *Embodied Carbon Guidelines*[3].

[1] 'Reconstruction' is defined in the Vancouver Building By-law in Division B – Notes to Part 11 Existing Buildings.

[2] https://vancouver.ca/green-vancouver/zero-emissions-buildings.aspx#embodied-carbon

[3] https://vancouver.ca/green-vancouver/zero-emissions-buildings.aspx#embodied-carbon

As noted in the Policy, the submission is to demonstrate that the project is on track to meet the *Vancouver Building By-law* embodied carbon limits expected to be in force at the time of the project's first Building Permit application.

4.1.1.2 Technical Guidance

Refer to the City of Vancouver *Embodied Carbon Guidelines* for technical guidance on demonstrating compliance.

4.1.2 Resilient Buildings Planning

4.1.2.1 Submission Requirements

Developments must complete the *Resilient Buildings Planning Worksheet*[4] to demonstrate an understanding of the hazards and risks to the projects and how these risks may change over time due to climate change, and to identify possible resilience strategies to mitigate the identified risks. A resilient project is built to withstand, or recover quickly from natural and human-caused hazards and disasters, and delivers co-benefits to people and systems in the absence of hazards and disasters.

4.1.2.2 Technical Guidance

Refer to the *Resilient Buildings Planning Worksheet*[5] for technical guidance.

4.2 Requirements for Enhanced Commissioning

This requirement applies for all developments containing Part 3 buildings (as defined by the *Vancouver Building By-law*), except those rezoning to RM-8A, RM-8AN, and RR-1 district schedules.

4.2.1 Submission Requirements

Rezoning applications shall include a Letter of Commitment from the project owner to complete an Enhanced Commissioning process throughout the design, construction and occupancy stages of the development as outlined below.

[4] https://vancouver.ca/files/cov/resilient-buildings-planning-worksheet.xlsx

[5] https://vancouver.ca/files/cov/resilient-buildings-planning-worksheet.xlsx

4.2.2 Technical Guidance

A third-party Commissioning Authority (CxA) must be designated to oversee the enhanced commissioning process. Where the proposed CxA is from the same company as a member of the design or project team, a disclosure letter signed by the CxA and the owner must be included in the Commissioning Plan that describes how the CxA will remain independent and objective in fulfilling their duties to the owner. The CxA must be able to demonstrate experience commissioning projects of similar size and complexity, and be a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia or the Architectural Institute of BC, or otherwise holds a professional designation in building commissioning, energy management, efficiency or sustainability (for example, a credential issued by a post-secondary institution or a third party certification body such as ASHRAE or LEED),

The owner and CxA are responsible for developing and documenting the Owner's Project Requirements (OPR), and the design team and CxA are responsible for developing and documenting the Basis of Design (BOD). Both documents should contain the project and design requirements of this Policy and other applicable green building and sustainability policies and standards.

The CxA is responsible for ensuring the Commissioning Plan and Commissioning Report contain, at a minimum, the following:

(a) Commissioning Plan:

  (i) Review the OPR, BOD, and project design, summarize and provide commentary where required;

  (ii) Outline roles and responsibilities of the design and construction team in the commissioning process;

  (iii) Confirm incorporation of commissioning requirements into the construction documents;

  (iv) Approximate timelines of commissioning activities;

  (v) Details of the planned commissioning activities, such as a list of equipment and systems to be commissioned, functions to be tested, test conditions, and/or performance criteria;

  (vi) Commissioning documentation to be provided, and final acceptance criteria (aligned with the OPR); and,

  (vii) If a project chooses to pursue Ongoing or Monitoring Based Commissioning, a Monitoring and Verification (M&V) Plan should be included in the Commissioning Plan.

(b) Commissioning Report:

(i) Summarize how design and installation has met with OPR and BOD requirements;

(ii) Summarize the results of commissioning activities described in the Commissioning Plan, including:

(A) final test procedures and criteria;

(B) functional performance test results;

(C) deficiencies noted and corrections made;

(D) a list of unresolved deficiencies or deferred tests, along with climatic conditions required to perform them;

(E) a record of training given to the owner or operator(s), including a summary of any remaining training to be completed;

(F) a summary or status report of the Operating and Maintenance (O&M) Manuals, as-built drawings and final building energy model; and,

(iii) Note any further actions that the owner needs to take in the warranty period of the equipment to ensure efficient operation, or that the system is balanced and optimized.

As part of the commissioning process, the following items must be provided to the owner post-occupancy:

(a) The final Commissioning Report;

(b) O & M Manuals;

(c) Training for operators or building managers;

(d) A digital copy of the full O&M manuals, a full PDF set of building as-built drawings, a copy of the BIM files if applicable, and the final building energy model file.

Alternate commissioning standards may be proposed for acceptance by the City, such as ASHRAE Standard 202-2013 The Commissioning Process for Buildings and Systems, CSA Z320-11 Building Commissioning Standard, CSA Z8001-13 Commissioning Standard of Health Care Facilities, or the upcoming CSA Z5000, Building Commissioning For Energy Using Systems.

For developments pursuing LEED v4 or v4.1, achievement of the Enhanced Commissioning credit, Option 1, Path 1, is acceptable to meet the intent of this requirement.

4.3 Requirements for Energy System Sub-Metering

This requirement applies for all developments containing Part 3 buildings (as defined by the *Vancouver Building By-law*), except those rezoning to RM-8A, RM-8AN, and RR-1 district schedules.

4.3.1 Submission Requirements

Rezoning applications shall include a Letter of Commitment from the project owner to design and build to incorporate energy system main metering and sub-metering as outlined below.

4.3.2 Technical Guidance

Main metering for each energy utility and each building must be installed to provide the basic tools for energy auditing and benchmarking. To provide the tools for building owners to better understand where and how energy is used in buildings, the Policy also requires sub-metering of major energy end-uses and/or space uses within each building.

Major energy end-uses for sub-metering may include, but are not limited to, domestic hot water, space heating, make-up air heating, cooling, fans, lighting, plugs, EV charging, and others.

Major space uses for sub-metering may include, but are not limited to, parkades, common and amenity areas, retail, and other spaces that differ from the primary space type of the building.

While other applicable standards or by-laws may contain additional requirements, this Policy does not require sub-meters for:

- each individual residential suite, where meters are not otherwise required by a utility;
- energy end-uses contained entirely within a residential suite; or,
- energy end-uses estimated to use approximately 10% of total building energy use or less.

If the project includes metering of individual suites, meter data from suites must be aggregated to include 20 suites or more, or otherwise be made anonymous.

The energy sub-metering strategy used should be appropriate for the size and complexity of the building. Smaller or simpler buildings with less systems and space uses may require relatively few meters compared to a large mixed-use building with complex energy systems. To maximize cost effectiveness and the quality of metered data, the strategy may choose to: use a combination physical and virtual meters; interface with the Building Automation System (BAS), which can collect and aggregate energy use data from mechanical equipment and other systems; or connect digitally with meters already provided or required by utilities. The strategy should be created with direct input from the mechanical and electrical designers as well as the Commissioning Authority, and must be designed

to provide building owners with the level of sub-meters and data necessary to conduct a high-quality energy assessment or retro-commissioning activities.

Meters should typically be capable of reporting hourly, daily, monthly, and annual energy use, and the submeter data collection system used must be capable of storing meter data for at least 36 months, providing remote data access for the building owner or energy advisor, and secure back-up of data.

For developments pursuing LEED v4 or v4.1, achievement of the Advanced Energy Metering credit is acceptable to meet the intent of this requirement.

5 SUMMARY OF SUBMISSION REQUIREMENTS

The following table provides a summary of the submission requirements at the rezoning application stage, based on the type of rezoning application.

Table 1: Summary of Submission Requirements

	Rezoning Type		
Policy Requirement	**Rezoning to CD-1**	**Rezoning to RR-2A/2B/2C & RR-3A/3B & I-1C**	**Rezoning to RR-1, RM-8A, RM-8AN**
1. Reporting of Green and Resilient Building Measures	- Embodied Carbon Design Report - Resilient Buildings Planning Worksheet	Letter of Commitment to provide the following at Building Permit: - Embodied Carbon Design Report - Resilient Buildings Planning Worksheet And to: - complete an Enhanced Commissioning process - incorporate Energy System Submetering	None
2. Enhanced Commissioning 3. Energy System Submetering	Letter of Commitment to: - complete an Enhanced Commissioning process - incorporate Energy System Sub-metering		None