

Impact of Future Policy Changes & BC's Electrification Requirements on Existing & New Developments

Why Now?

We are going to experience a very fast and major shift to decarbonization and building electrification. The Province of BC has committed to zero carbon new construction by 2030 with commitments to phasing in targets into the BC Building Code in 2023. The City of Vancouver is a few steps ahead. Policy changes include dashboards, reporting on embodied carbon, energy, and operational carbon, all to be implemented within the next few vears. Circular economy. responsible selection of material and deconstruction requirements are also coming into bylaw. The construction industry has not seen this magnitude of disruption.

Building Electrification



Energy Step Code/BCBC

As of May 1, 2023, the BC Building Code (the Code) requires 20%-better energy efficiency for most new buildings in BC. This is equivalent to Step 3 for Part 9 buildings and Step 2 for Part 3 buildings.

Vancouver Building By-law (VBBL) Changes - July 2023

- 1. Reduce the carbon emissions limit for new four to six-storey residential buildings (except hotels / motels) from 5.5 to 3 kgCO2e/m2.
- 2. Introduce a 50% carbon emissions reduction requirement for all new building types without GHGi limit (i.e. assembly, care and industrial).
- 3. Introduce a requirement for minimum MERV 13 filters in new building ventilation systems.
- 4. An administrative change to copy the existing overheating limits in the referenced City of Vancouver (CoV) guidelines to the by-law.
- 5. Introduce an embodied carbon reporting requirement for all new Part 3 buildings.

VBBL Changes - January 2025

- 1. Reduce the carbon emissions limit for new seven(+)-storey residential buildings from six to three kgCO2e/m2. Reduce the limit for new hotel buildings from eight to four kgCO2e/m2.
- 2. Increase from 50% to an 85% reduction in carbon emissions for all new building types without a GHGi limit (i.e assembly, care and industrial).
- 3. Include estimated refrigerant gas emissions in definition and calculations of carbon emission limits.
- 4. Require all dwelling units in new Part 3 buildings to be served by active mechanical cooling capable of maintaining 26 degrees or less, with windows closed.
- 5. Require embodied carbon reductions of 10% for all new Part 3 buildings, and 20% for new low-rise buildings that can build with wood or mass timber.
- 6. Require one of the three options:
 - a) sustainable sourcing of wood, concrete, or steel
 - b) disclosure of chemical ingredients of building products
 - c) 75% construction waste diversion and design for disassembly

Resilience Assessment

- Full assessment and report will be required at rezoning
- Total risk score out of 25

Exposure x Consequence x Likelihood = Risk

COV Operating Permits



COV Limits

2026	GHGi limits ≥ 9,290 m² Office = 25 kg CO₂e/m2/year Retail = 14 kg CO₂e/m2/year	D, E, MUB	Office, Retail
2040	GHGi limits ≥ 9,290 m² 0 kg CO₂e/m²/year Heat Energy Limit ≥ 9,290 m² 0.09 GJ/m²/year	D, E, MUB	Office, Retail

Contact Us for More Information

Sunny Ghataurah

AES Engineering **T:** 778.384.7176

E: Sunny.Ghataurah@aesengr.com