
Energy Efficiency Requirements in the Vancouver Electrical By-law No. 5563

The intent of this bulletin is to provide clarification and outline changes to the electrical inspection process in conjunction with the addition to the Electrical By-Law No. 5563 regarding Energy Efficiency.

The Vancouver Electrical By-law (VEBL) has been amended to add a new Section, Energy Efficiency. This new Section, 7.3.6, requires new electrical installations in existing buildings subjected to renovation to comply with the energy efficiency provisions in Part 10 of the Vancouver Building By-law, as they pertain to the electrical scope of work. The energy efficiency provisions require electrical design to conform to the alterations requirements within ASHRAE 90.1-2010, or meet the requirements of the appropriate sections within the National Energy Code of Canada for Buildings, 2011 (NECB). Both ASHRAE 90.1-2010 and the NECB 2011 mandate design and installation of lighting control devices, including, but not limited to, automatic lighting shutoff, control of the general lighting within the space, parking garage lighting control, automatic daylighting controls for top lighting and exterior lighting control including signage in addition to compliance with maximum Lighting Power Densities (LPD).

Completed compliance forms must be provided by the permit applicant, with the building and/or electrical permit application. Links to these forms are at the end of this document.

Upon installation of lighting equipment, and before such wiring or equipment is concealed or covered up, the permit holder must request an inspection with a completed Attachment "L" (attached to this bulletin), submitted to the district electrical inspector. Reflected ceiling plans must be on site at the time of inspection.

Electrical inspectors will be involved in auditing of electrical installations - to inspect compliance of the electrical installation with the VEBL, and to ensure that performance of the emergency lighting and electrically connected exit signs is not compromised by operation of the lighting control devices (i.e. to ensure that lighting controls fail safe).

For projects exceeding 3500W of connected lighting load, a functional testing report stating that independent verification of compliance with ASHRAE 90.1-2010 has been performed must be submitted to the district electrical inspector.

Effective May 1, 2017, documentation resulting from these changes will be required for the application intake for electrical permits involving lighting installation.

The new electrical efficiency work in an existing building space or area must comply with the requirements of Section 7.3.6 of the VEBL applicable to that space or area. Where electrical efficiency work in an existing building is carried out under an electrical permit, it is not the intent of Section 7.3.6 of the VEBL to require the owner to further electrically upgrade the building beyond the scope of the electrical permit.

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For the application intake for electrical permits, the Energy Checklist for lighting is required. The compliance form is available in 3 formats. The excel document can be used for either the space by space or the building area method. There is also a PDF version of the form for either method.

- Excel - [Lighting Compliance Form](#)
- PDF - [Lighting Compliance Form - Building Area Method](#)
- PDF - [Lighting Compliance Form - Space by Space Method](#)

For additional information on energy efficiency requirements in the City of Vancouver, please refer to the following websites.

- <http://vancouver.ca/home-property-development/ashrae-2010-supporting-documents.aspx>
- <http://vancouver.ca/home-property-development/large-building-energy-requirements-forms-checklists.aspx>
- <http://vancouver.ca/home-property-development/energy-checklist-training-videos.aspx>

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Director, Building Code and Policy

Attachment "L":

- Installation of Lighting Equipment in compliance with the Vancouver Electrical By-law No. 5563

BULLETIN 2017-002-BU/EL - Attachment "L"

May 1, 2017

**Installation of Lighting Equipment
in compliance with the Vancouver Electrical By-law No. 5563**

Date: _____

Electrical Permit No. (EP): _____

Building Address: _____

Specific Location/
Unit No.: _____

Associated Building Permit No.
(BP/BU/DB): _____

	<u>Allowance</u>	<u>Installed</u>
Interior Lighting Power*	W _____	W _____
Exterior Lighting Power**	W _____	W _____
Decorative Lighting Power**	W _____	W _____
Display Lighting Power**	W _____	W _____

* Does not include decorative or display lighting when space by space method is used.

** Where applicable

Lighting automatic shut off is provided per ASHRAE 90.1 - 2010 9.4.1.1: YES NO

Lighting is turned on: MANUALLY AUTOMATICALLY BOTH

If automatic, please identify the control means: T/C Occ. Sensor Other: _____

Daylighting controls have been installed: N/A YES NO

The reflected ceiling plan for this installation is on site: YES NO

Lighting control systems and / or control devices have been functionally tested in accordance with ASHRAE 90.1 - 2010 9.4.4: YES (Please submit documentation with this form) NO

Electrical Contractor / FSR Name:

Electrical Engineer / Designer (if applicable):

Name (Please print)

Name (Please print)

Contact Phone Number

Company Name

Email address

Contact Phone Number

Email address

Signature

Signature (Affix Professional Stamp Here)

Sent to District Electrical Inspector: _____
Name (Please print)