



BUILDINGS BULLETIN 2010-032

Technical

Supersedes: None

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Issuance Date: December 29, 2010

Purpose: This document clarifies conditions under which an addition, alteration, renovation or repair to a lighting or electrical power system or control equipment may not be required to comply with the New York City Energy Conservation Code (NYCECC), pursuant to section NYCECC 101.4.3.

Related Code	NYCECC 101.4.3	ASHRAE 90.1	Section 8
Section(s):	NYCECC 404	ASHRAE 90.1	9.1.2
	NYCECC 505	ASHRAE 90.1	Section 9
	1 RCNY 5000-01	ASHRAE 90.1	Section 10

Subject(s): Additions, lighting systems; Alterations, lighting systems; Renovations, lighting systems; Repairs, lighting systems; Replacement, lighting systems; Lighting systems, luminaires; Lighting systems, lighting fixtures; Lighting systems, lighting fixtures, lamps; Lighting systems, lighting fixtures, ballasts; Lighting systems, lighting power density; Interior lighting; Exterior lighting; Electrical, electrical or control equipment; Electrical, energy use; New York City Energy Conservation Code; Energy Code

In accordance with sections NYCECC 101.4.3, 404, 505 and ASHRAE 90.1 sections 8, 9 and 10, additions, alterations, renovations and/or repairs to lighting and/or power systems and equipment shall be as follows, provided that energy use of the building is not increased:

1. **Interior lighting systems.** For additions, refer to section NYCECC 101.4.3. For alteration, renovation or repair to lighting systems, refer to section NYCECC 101.4.3, including exceptions 7 and 8, and to the following:
 - a. **Luminaires.** When 50 percent or more of the luminaires within the area of the entire scope of work are being replaced, and/or when 50 percent or more of the luminaires within a space are being replaced, the addition, alteration, renovation or repair in each case shall comply with the lighting provisions of the NYCECC or ASHRAE 90.1 as applicable.
 - b. **Lamps.** Lamp replacement shall be as follows:
 - i. **Dwelling units.** Replacement of lamps within dwelling units shall be by high-efficacy lamps where such lamps are available for such lighting fixtures, but such replacement need not exceed the minimum requirements of sections NYCECC 404 and 505.

- ii. **Replacement of lamps but not ballasts in other than dwelling units.** Lamps within fixtures shall be replaced by high-efficacy lamps unless the owner or applicant can demonstrate that such lamps are not available for such fixtures.
- c. **Replacement of ballasts but not lamps.** Ballast replacement within fixtures shall be with high-efficiency ballasts unless the owner or applicant can demonstrate that such ballasts are not available for such fixtures.
- d. **Controls.** Replacement of lighting controls shall comply with the provisions of the NYCECC or ASHRAE 90.1, as applicable, for new controls.
- e. **Wiring.** Fluorescent luminaires that are relocated or replaced shall be tandem-wired where applicable in accordance with section NYCECC 505.3 or ASHRAE 90.1 section 9.4.2, as applicable; however rewiring shall not be required for luminaire replacements if it is not within the scope of work.
- f. **Trade-offs.** Lighting additions, alterations, renovations and repairs within the scope of work shall be permitted to utilize trade-offs provided the total interior lighting power allowance of all the areas illuminated by the scope of work, in accordance with the NYCECC or ASHRAE 90.1, as applicable, is not exceeded.

Exceptions:

- 1. If the applicant can demonstrate through a whole-building energy modeling analysis that the building, including the proposed scope of work, complies with the NYCECC, then lighting may be used to trade-off with other elements of the energy analysis.
- 2. In cases where the existing lighting power density within the area of the scope of work is less than the lighting power density allowed by the NYCECC because of a previous trade-off with less efficient lighting in other areas of the building, and/or less efficient envelope, HVAC or service water heating systems, the proposed total installed lighting power of the area illuminated by the scope of work shall not exceed the existing total installed lighting power notwithstanding the lighting power density as determined by the requirements of the NYCECC.
- 2. **Exterior lighting systems.** Alteration of exterior lighting systems and/or replacement of exterior lighting fixtures, lamps, ballasts and/or controls, and shall comply with the provisions of section NYCECC 505.6 or ASHRAE 90.1 sections 9.4.4 and/or 9.4.5, as applicable, to the extent of the alteration.
- 3. **Electrical or control equipment.** Electrical or control equipment regulated by the NYCECC or ASHRAE 90.1, as applicable, shall be altered, renovated or repaired as follows:
 - a. **Equipment replacement.** Existing electrical or control equipment shall be replaced with equipment that complies with sizing and performance requirements of the NYCECC or ASHRAE 90.1, as applicable, for new equipment.
 - b. **Equipment alteration, renovation or repair for a different function.** Existing electrical or control equipment that is altered to perform a different function that is regulated by the NYCECC shall comply with sizing and performance requirements of the NYCECC or ASHRAE 90.1, as applicable, for new equipment for such function.
 - c. **Equipment alteration, renovation or repair for the same function.** Existing electrical or control equipment that is repaired to continue its operation in the same function shall not be required to comply with sizing or performance requirements for new equipment.