

## \*CHAPTER 1

# ADMINISTRATION

\*ECC Chapter 1 was repealed and replaced in its entirety by: [Local Law 01 of 2011 – Update #50](#). This law has an effective date of December 28, 2010.

### SECTION ECC 101 SCOPE AND GENERAL REQUIREMENTS

#### 101.1 General.

These provisions shall be known and cited as the “*New York City Energy Conservation Code*,” “NYCECC” or “ECC,” and are referred to herein as “this code.” All section numbers in this code shall be deemed to be preceded by the designation “ECC.” Administration and enforcement of this code shall be in accordance with Title 28 of the *Administrative Code*.

#### 101.2 Scope.

This code applies to residential buildings and commercial buildings as defined in Chapter 2.

##### 101.2.1 References.

Where reference is made within this code to the *Building Code of New York State*, *Existing Building Code of New York State*, *Fire Code of New York State*, *Fuel Gas Code of New York State*, *Mechanical Code of New York State*, *Plumbing Code of New York State*, *Property Maintenance Code of New York State* or *Residential Code of New York State*, the reference shall be deemed to be to the analogous provision(s) of Title 28 of the *Administrative Code* (the *New York City Construction Codes*), the *1968 Building Code*, the *New York City Fire Code* or the *New York City Electrical Code*.

##### 101.2.2 Occupancy classifications.

For determination of occupancy classification and use within this code, a comparable occupancy classification shall be made to the *New York City Building Code*.

##### 101.2.3 Reconciliation with *Energy Conservation Construction Code of New York State*.

Whenever any provision of the *Energy Conservation Construction Code of New York State* provides for a more stringent requirement than imposed by this code, the more stringent requirement shall govern.

##### 101.2.4 Other laws.

The provisions of this code shall not be deemed to nullify any federal, state or local law, rule or regulation relating to any matter as to which this code does not provide.

#### 101.3 Intent.

This code shall regulate the design and construction of buildings for the effective use of energy. This code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve the effective use of energy. This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances. To the fullest extent feasible, use of modern technical methods, devices and improvements that tend to minimize consumption of energy and utilize to the greatest extent practical solar and other renewable energy sources without abridging reasonable requirements for the safety, health and security of the occupants or users of buildings shall be permitted. As far as may be practicable, the improvement of energy conservation construction practices, methods, equipment, materials and techniques shall be encouraged.

#### 101.4 Applicability.

The provisions of this code shall apply to the construction of buildings. Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern.

##### 101.4.1 Existing buildings.

Except as specified in this chapter, this code shall not be used to require the removal, alteration or abandonment of, nor prevent the continued use and maintenance of, an existing building or building system lawfully in existence at the time of adoption of this code.

##### 101.4.2 Historic buildings.

An alteration or renovation to an existing building or structure that (1) is listed in the New York State Register of Historic Places, either individually or as a contributing building to a historic district, (2) is listed in the National Register of Historic Places, either individually or as a contributing building to a historic district, (3) has been determined to be eligible for listing in either the New York State or National Register of Historic Places, either individually or as a contributing building to a historic district, by the New York State Commissioner of Parks, Recreation and Historic Preservation, or (4) has been determined to be eligible for listing in the National Register of Historic Places, either individually or as a contributing building to a historic district, by the United States Secretary of the Interior, need not comply with this code.

#### **101.4.3 Additions, alterations, renovations or repairs.**

Additions, alterations, renovations or repairs to an existing building, building system, equipment or portion thereof, other than repairs of equipment, shall conform to the provisions of this code as they relate to new construction without requiring the unaltered portion(s) of the existing building, building system or equipment to comply with this code. Additions, alterations, renovations or repairs shall not create an unsafe or hazardous condition or overload existing building systems. An addition shall be deemed to comply with this code if the addition alone complies or if the existing building and addition comply with this code as a single building.

**Exception:** The following need not comply with the provisions of this code provided that the energy use of the building is not increased:

1. Storm windows installed over existing fenestration.
2. Glass-only replacements in an existing sash and frame, provided that the U-factor and the solar heat gain coefficient (SHGC) shall be equal to or lower than before the glass replacement.
3. Alterations, renovations or repairs to roof/ceiling, wall or floor cavities, including spaces between furring strips, provided that such cavities are insulated to the full existing cavity depth with insulation having a minimum nominal value of R-3.0/inch (R-2.0/cm).
4. Alterations, renovations or repairs to walls and floors in cases where the existing structure is without framing cavities and no new framing cavities are created.
5. Reroofing where neither the sheathing nor the insulation is exposed. Roofs without insulation in the cavity and where the sheathing or insulation is exposed during reroofing shall be insulated either above or below the sheathing.
6. Replacement of existing doors that separate conditioned space from the exterior shall not require the installation of a vestibule or revolving door, provided, however, that an existing vestibule that separates a conditioned space from the exterior shall not be removed.
7. An alteration that replaces less than 50 percent of the luminaires in a space, provided that such alteration does not increase the installed interior lighting power.
8. An alteration that replaces only the bulb and ballast within the existing luminaires in a space, provided that such alteration does not increase the installed interior lighting power.

#### **101.4.4 Change in occupancy or use.**

Spaces undergoing a change in occupancy that would result in an increase in demand for either fossil fuel or electrical energy shall comply with this code. Where the use of a space changes from one use in Table 505.5.2 to another use in Table 505.5.2, the installed lighting wattage shall comply with Section 505.5.

#### **101.4.5 Change in space conditioning.**

Any nonconditioned space that is altered to become conditioned space shall comply with this code.

#### **101.4.6 Mixed occupancy.**

Where a building includes both residential and commercial occupancies, each occupancy shall be separately considered and shall meet the applicable provisions of Chapter 4 for residential and Chapter 5 for commercial.

### **101.5 Compliance.**

Residential buildings shall meet the provisions of Chapter 4. Commercial buildings shall meet the provisions of Chapter 5.

#### **101.5.1 Compliance software.**

Compliance may be determined through the use of computer software developed by the United States Department of Energy, including REScheck, COMcheck or DOE2; of REM/Rate home energy rating and REM/Design home energy analysis software specifically

developed for the *2010 Energy Conservation Construction Code of New York State*; or of other building energy modeling or home energy rating software (“HERS”) approved by the New York State Secretary of State. In the case of energy modeling, the commissioner may accept an energy cost budget worksheet based on ASHRAE 90.1 or Section 506 and any information and/or reports showing acceptable results of the energy modeling. Software programs used to show compliance must indicate compliance with the *2010 Energy Conservation Construction Code of New York State* to reflect the actual requirements of this code. REScheck or COMcheck printout forms must show “*Energy Conservation Construction Code of New York State*” in the title of the printout. Other software programs (for example, REM Rate/REM Design) shall clearly indicate compliance with *2010 Energy Conservation Construction Code of New York State* parameters. Compliance with the mandatory code provisions of Chapters 4 and 5 is required when using the software approach to show compliance.

#### **101.5.2 Low-energy buildings.**

The following buildings, or portions thereof separated from the remainder of the building by building thermal envelope assemblies complying with this code, shall be exempt from the building thermal envelope provisions of this code:

1. Those with a peak design rate of energy use less than 3.4 Btu/h per square foot (10.7 W/m<sup>2</sup>) or 1.0 watt per square foot (10.7 W/m<sup>2</sup>) of floor area for space conditioning purposes.
2. Those that do not contain conditioned space.

#### **101.5.3 Demonstration of compliance.**

For a building project application or applications required to be submitted to the department, the following documentation, as further described in the rules of the department, shall be required in order to demonstrate compliance with this code:

##### **101.5.3.1 Professional statement.**

Any registered design professional or lead energy professional filing an application or applications for a new building or alteration project shall provide on a signed and sealed drawing a statement of compliance or exemption in accordance with the rules of the department.

##### **101.5.3.2 Energy analysis.**

For any application that is not exempt from this code and for which a work permit is required in accordance with Section 28-105 of the *Administrative Code*, an energy analysis shall be provided on a sheet or sheets within the construction drawing set. The energy analysis shall identify the compliance path followed, demonstrate how the design complies with this code and be in a format as prescribed in the rules of the department. The energy analysis shall meet the requirements of this code for the entire project. Projects that utilize trade-offs among disciplines shall use DOE2-based energy modeling programs or other energy-modeling programs as prescribed in the rules of the department and shall be signed and sealed by a lead energy professional.

##### **101.5.3.3 Supporting documentation.**

For any application that is not exempt from this code and for which a work permit is required in accordance with Section 28-105 of the *Administrative Code*, supporting documentation shall be required in the approved construction drawings. See Section 103 for further requirements.

#### **101.6 Severability.**

If a section, subsection, sentence, clause or phrase of this code is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this code.

### **SECTION ECC 102 ALTERNATE MATERIALS, METHOD OF CONSTRUCTION, DESIGN OR INSULATING SYSTEMS**

#### **102.1 General.**

This code is not intended to prevent the use of any material, method of construction, design or insulating system not specifically prescribed herein, provided that such material, method of construction, design or insulating system has been approved by the commissioner as (1) meeting the intent of this code, (2) achieving energy savings that are equivalent to or greater than would be achieved using prescribed materials, methods of construction, designs or insulating systems, and (3) meeting the requirements of Article 113 of Chapter 1 of Title 28 of the *Administrative Code* and the remaining *New York City Construction Codes*.

##### **102.1.1 Above-code programs.**

The commissioner shall be permitted to find that a national, state or local energy efficiency program exceeds the energy efficiency required by this code. Buildings approved in writing by such an energy efficiency program shall be considered in compliance with this code. Notwithstanding approval by such an energy efficiency program, the requirements identified as “mandatory” in Chapters 4 and 5 of this code shall still apply.

## **SECTION ECC 103 CONSTRUCTION DOCUMENTS**

### **103.1 General.**

Construction documents shall be prepared in accordance with the provisions of Chapter 1 of Title 28 of the *Administrative Code*, the *New York City Construction Codes*, including this code, and the rules of the department.

### **103.2 Supporting documentation on construction documents.**

Supporting documentation shall include those construction documents that demonstrate compliance with this code.

#### **103.2.1 Intent.**

Supporting documentation shall accomplish the following:

1. Demonstrate conformance of approved drawings to the energy analysis for every element and value of the energy analysis;
2. Demonstrate conformance of approved drawings to other mandatory requirements of this code, including, but not limited, to, sealing against air leakage from the building envelope and from ductwork as applicable, insulation of ducts and piping as applicable, mechanical and lighting controls with devices shown and operational narratives for each, and additional requirements as set forth in this section;
3. Identify required progress inspections in accordance with the scope of work, this code, the *Administrative Code*, the *New York City Building Code* and the rules of the department; and
4. Comply with other requirements as may be set forth in the rules of the department.

#### **103.2.2 Detailed requirements.**

Construction documents shall be drawn to scale upon suitable material. Electronic media documents are permitted to be submitted in accordance with department procedures. Construction documents for a project shall be fully coordinated and of sufficient clarity to indicate the location, nature and extent of the work proposed, and show in sufficient detail pertinent data and features of the building, building systems and equipment as herein governed. Details shall include, but are not limited to, as applicable, insulation materials and their R-values; fenestration U-factors and SHGCs; area-weighted U-factor and SHGC calculations; mechanical system design criteria; mechanical and service water heating system and equipment, types, sizes and efficiencies; economizer description; equipment and systems controls; fan motor horsepower and controls; duct sealing, duct and pipe insulation and location; lighting fixture schedule with wattages and control narrative; and air sealing details.

### **103.3 Examination of documents.**

In accordance with Article 104 of Chapter 1 of Title 28 of the *Administrative Code*, the department shall examine or cause to be examined the accompanying construction documents and shall ascertain by such examinations whether the construction indicated and described is in accordance with the requirements of this code and other pertinent laws, rules and regulations.

### **103.4 Changes during construction.**

Changes made during construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents.

## **SECTION ECC 104 INSPECTIONS**

### **104.1 General.**

Except as otherwise specifically provided, inspections required by this code or by the department during the progress of work may be performed on behalf of the owner by an approved agency. All inspections shall be performed at the sole cost and expense of the owner. Refer to Article 116 of Chapter 1 of Title 28 of the *Administrative Code* for additional provisions relating to inspections. In addition to any inspections otherwise required by this code or the rules of the department, the following inspections shall be required:

1. Progress inspections. Progress inspections shall be performed in accordance with the rules of the department.
2. Final inspection. Refer to Article 116 of Chapter 1 of Title 28 of the *Administrative Code* and the rules of the department.

3. Issuance of Certificate of Compliance. Refer to Section 28-116.4.1 of the *Administrative Code*.

The requirements of Section 104.1 shall not be read to prohibit the operation of any heating equipment or appliances installed to replace existing heating equipment or appliances serving an occupied portion of a structure provided that a request for inspection of such heating equipment or appliances has been filed with the department not more than 48 hours after such replacement work is completed, and before any portion of such equipment or appliances is concealed by any permanent portion of the structure.

#### **104.1.1 Approved agencies.**

Refer to Article 114 of Chapter 1 of Title 28 of the *Administrative Code* and the rules of the department.

#### **104.1.2 Inspection of prefabricated construction assemblies.**

Prior to the issuance of a work permit for a prefabricated construction assembly having concealed mechanical work, the department shall require the submittal of an evaluation report by the manufacturer or approved agency on each prefabricated construction assembly, indicating the complete details of the mechanical system, including a description of the system and its components, the basis upon which the system is being evaluated for energy use, test results and similar information, and other data as necessary for the commissioner to determine conformance to this code.

##### **104.1.2.1 Test and inspection records.**

Required test and inspection records shall be made available to the commissioner at all times during the fabrication of the mechanical system and the erection of the building; or such records as the commissioner designates shall be filed.

#### **104.2 Testing.**

Envelope, heating, ventilating, air conditioning, service water heating, lighting and electrical systems shall be tested as required in this code and in accordance with Sections 104.2.1 through 104.2.3. Except as otherwise required in this code or in the rules of the department, tests shall be made by the permit holder and witnessed by an approved agency.

##### **104.2.1 New, altered, extended, renovated or repaired systems.**

New envelope, heating, ventilating, air conditioning, service water heating, lighting and electrical installations or systems, and parts of existing systems that have been altered, extended, renovated or repaired, shall be tested as prescribed herein or in the rules of the department to disclose leaks and defects.

##### **104.2.2 Apparatus, instruments, material and labor for tests.**

Apparatus, instruments, material and labor required for testing an envelope, heating, ventilating, air conditioning, service water heating, lighting and/or electrical installation or system or part thereof shall be furnished by the permit holder.

##### **104.2.3 Reinspection and testing.**

Where any work or installation does not pass an initial test or inspection, the necessary corrections shall be made so as to achieve compliance with the *New York City Construction Codes*, including this code. The work or installation shall then be reinspected or retested by the approved agency.

#### **104.3 Sign-off of completed work.**

In addition to the requirements of Article 116 of Chapter 1 of Title 28 of the *Administrative Code*, Section 103.4 of this code and other requirements for sign-off, the project team shall either certify that construction does not differ from the last approved energy analysis or provide a whole-project as-built energy analysis and supporting documents, signed and sealed, for approval prior to sign-off. The as-built energy analysis and supporting documents shall reflect the materials, equipment and values actually used in the construction of the project, and shall demonstrate compliance of the constructed project with this code. Such signed and sealed documents may be accepted with less than full examination by the department based on the professional certification of the registered design professional.

#### **104.4 Temporary connection.**

The commissioner shall have the authority to allow the temporary connection of an installation to the sources of energy for the purpose of testing the installation or for use under a temporary certificate of occupancy.

### **SECTION ECC 105 REFERENCED STANDARDS**

#### **105.1 Referenced standards.**

The standards referenced in this code shall be those that are listed in Chapter 6 and in the rules of the department and such standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between

provisions of this code and the referenced standards, the provisions of this code shall apply. Refer to Article 103 of Chapter 1 of Title 28 of the *Administrative Code* for additional provisions relating to referenced standards.