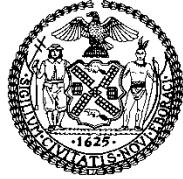


Staff: Jennifer Wilcox, Counsel
Shijuade Kadree, Counsel
Guillermo Patino, Legislative Policy Analyst
Jose Conde, Legislative Policy Analyst
Sarah Gastelum, Legislative Financial Analyst



THE COUNCIL

Committee Report of the Infrastructure Division

Matt Gewolb, Legislative Director
Jeff Baker, Deputy Director, Infrastructure Division

COMMITTEE ON HOUSING AND BUILDINGS

Jumaane D. Williams, Chair

November 19, 2014

INT. NO. 550:

By Council Members Williams and Richards (by request of the Mayor)

TITLE:

A Local Law to amend the administrative code of the city of New York, in relation to conforming the New York city energy conservation code to the New York state energy code with amendments unique to construction in the city and repealing section 28-1001.2 in relation thereto.

ADMINISTRATIVE CODE:

Amends sections 28-1001.1 and 28-1001.1.1. Repeals sections 28-1001.2. Add a new section 28-1001.2.

Introduction

On November 19, 2014, the Committee on Housing and Buildings, chaired by Council Member Jumaane D. Williams, will hold a hearing to consider Int. No. 550. The Committee expects to receive testimony from representatives of the Department of Buildings (DOB), members of the real estate industry, engineers, architects, builders, energy conservation advocates and other interested members of the public.

Background

The Energy Conservation Construction Code of New York State (State Energy Code) sets standards for the energy performance of buildings throughout New York. The State Energy Law permits municipalities to promulgate local energy conservation construction codes, provided that those codes are at least as stringent as the State Energy Code.¹ Later this month, the State is expected to amend the provisions of the State Energy Code that apply to commercial buildings.² So, for New York City to continue having its own energy code, the City must update the commercial provisions of the local energy code to match the new State standards. Int. No. 550 is intended to address this issue, and make several New York City-specific amendments to the updated State Energy Code.

New York City-Specific Amendments

Int. No. 550 includes 12 New York City specific-amendments to the State Energy Code and the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)

¹ See New York State Energy Law § 11-109.

² For energy code purposes, the term “commercial building” generally includes residential buildings taller than three stories. State Energy Code § 202.

energy standards³ – two amendments are based on previously passed local laws; six are based on Green Codes Task Force recommendations;⁴ and four are based on DOB recommendations.

Occupant sensors. The first New York City-specific amendment keeps the New York City energy code in line with the requirements of Local Law 48 of 2010 concerning occupant sensors. Under the proposed updates to the State Energy Code, occupant sensors would (1) be required in all classrooms, conference/meeting rooms, employee lunch and break rooms, private offices, restrooms, storage rooms and janitorial closets, and other spaces 300 square feet or less; (2) be required to turn off lights within 30 minutes after all occupants leave the space; and (3) allow lights to be turned on either manually (to full power) or automatically (to not more than 50% power).⁵ To be consistent with Local Law 48 of 2010, Int. No. 550 instead requires that classrooms, conference/meeting rooms, employee lunch and break rooms, and offices smaller than 200 square feet have manually operated devices to turn the lights on, while allowing lights in restrooms, storage rooms, private offices 200 square feet in area or greater, janitorial closets, and other areas 300 square feet in area or less to turn on automatically (to not more than 50% power).

Lighting in dwelling units. The second New York City-specific amendment, which makes changes to ASHRAE requirements, is based on a DOB recommendation. ASHRAE currently exempts lighting within dwelling units from its lighting regulations.⁶ Int. No. 550 removes that exemption and replaces it with an exemption that covers only dwelling units within

³ Developers and owners of commercial buildings may elect to follow either the State Energy Code (or, in New York City, the City’s local energy code) or ASHRAE 90.1 (Energy Standard for Buildings Except Low-Rise Residential Buildings). References to “ASHRAE” in this Committee Report are to ASHRAE 90.1-2010.

⁴ The Green Codes Task Force was convened in July 2008 by Mayor Michael Bloomberg and Speaker Christine Queen and was composed of industry experts, union representatives, tenant advocates, environmentalists, academics, developers, building owners, and representatives of City agencies. After two years of work examining each of the City’s Construction Codes, the task force presented 111 recommendations for “greening the codes” and raising the bar for environmental performance in buildings throughout the City.

⁵ International Energy Conservation Code (IECC) § C405.2.2.2 (incorporated as part of the State Energy Code).

⁶ ASHRAE 90.1-2010 § 9.1.1.

commercial buildings where not less than 75% of the permanently installed fixtures are fitted for and contain only high efficiency lamps. DOB recommends this change because it notes that dwelling units make up a large portion of the City's building stock and significantly impact the level of greenhouse gases emitted by the City.

Meeting standards required for manufacturers. The third change, also recommended by DOB, would amend both the State Energy Code and ASHRAE. According to DOB, although the State Energy Code and ASHRAE are periodically updated, they are not updated frequently enough to keep pace with federal energy efficiency standards imposed on manufacturers of building equipment. Int. No. 550 would require that buildings in the City use equipment that meets these same federal standards, as opposed to allowing owners to install older equipment (e.g. air conditioners) manufactured before the new efficiency standards were put in place.

Increasing boiler efficiency. The fourth change would amend both the State Energy Code and ASHRAE and was a Green Codes Task Force proposal. Both ASHRAE and the State Energy Code set minimum boiler efficiency standards. Int. No. 550 would increase the minimum boiler efficiency standard by 1-3%. According to DOB, this would significantly reduce greenhouse gas emissions with little to no additional cost impact on building owners.

System commissioning. The next four changes amend the State Energy Code with regard to the scope of commissioning and were recommended by the Green Codes Task Force. Commissioning is generally "a process for testing building systems to ensure that they function according to engineering design objectives or specifications."⁷ The proposed State Energy Code's commissioning requirements would apply to mechanical, electrical power, and lighting

⁷"Green Code Task Force proposal EE 25", *available online at* http://urbangreencouncil.org/sites/default/files/greencodestaskforce_fullreport.pdf.

systems but would not include mechanical systems that serve dwelling or sleeping units.⁸ Int. No. 550 would expand the commissioning requirements to renewable energy systems and water heating systems and would remove the exception for systems that serve dwelling or sleeping units.

Int. No. 550 would further require that commissioning reports be filed with DOB. For buildings 500,000 square feet or greater, the report would have to be filed within 30 months (for buildings 500,000 square feet or greater, other than residential buildings) or 18 months (for all other buildings, including residential buildings) of receipt of the initial certificate of occupancy. According to DOB, this filing schedule will allow time for occupancy and seasonal testing. Through rulemaking, DOB plans to set the fees for filing commissioning reports.

Int. No. 550 would also require that developers and owners who choose to comply with ASHRAE nevertheless comply with the system commissioning requirements of the State Energy Code (with the amendments discussed above). ASHRAE requires system commissioning for only heating, ventilation and air conditioning (HVAC) systems.⁹

Compliance paths. The tenth change amends the State Energy Code and was recommended by DOB. In order to show compliance with the State Energy Code, commercial buildings can follow ASHRAE, the State Energy Code prescriptive path or the State Energy Code performance path. Int. No. 550 would eliminate the State Energy Code performance path. According to DOB, the State Energy Code performance path is vague and creates interpretation problems for both enforcement and industry compliance.

Submetering. The eleventh change would amend the State Energy Code and ASHRAE with regards to submetering and was recommended by DOB. While ASHRAE and the State

⁸ See IECC §§ C408.1 and C408.2.

⁹ ASHRAE 90.1-2010 § 6.7.2.3.

Energy Code do not currently have any submetering requirements, Local Law 88 of 2009 requires certain tenant spaces in commercial buildings to be submetered beginning in 2025. Int. No. 550 would require submeters to be installed in newly constructed commercial buildings to facilitate compliance with the requirements of Local Law 88.

Windows and skylights. The final New York City-specific change would amend the State Energy Code by adding a section from the 2015 International Energy Conservation Code, clarifying what happens when additions to existing buildings result in windows or skylights that exceed code limitations on fenestration or skylight area.

Proposed Int. No. 550

Section one of Int. No. 550 contains the legislative intent expressing the need for this legislation.

Section two of Int. No. 550 makes technical edits to section 28-1001.1 of the Administrative Code of the City of New York (the Code).

Section three of Int. No. 550 would add a new section 28-1001.1.1 to the Code defining the term “New York State Energy Code.”

Section four of Int. No. 550 repeals section 28-1001.2 of the Code and adds a new section 28-1001.2 incorporating the New York State Energy Code with the New York City-specific amendments discussed above.

Section five of this legislation contains the enactment clause and provides that this local law take effect on the same date that the New York State Energy Code takes effect.

Int. No. 550

By Council Members Williams and Richards (by request of the Mayor)

A Local Law to amend the administrative code of the city of New York, in relation to conforming the New York city energy conservation code to the New York state energy code with amendments unique to construction in the city and repealing section 28-1001.2 in relation thereto.

Be it enacted by the Council as follows:

Section 1. Statement of findings and purpose. The New York State Energy Conservation Construction Code (the “New York State Energy Code”) is promulgated by the State Fire Prevention and Building Code Council pursuant to Article 11 of the New York State Energy Law. In accordance with Article 11, the New York City Energy Conservation Code must be at least as strict as the New York State Energy Code. The purpose of this local law is to conform the New York City Energy Conservation Code to recent changes in the New York State Energy Code with local law amendments unique to construction in the City.

§2. Section 28-1001.1 of the administrative code of the city of New York, as amended by local law number 1 for the year 2011, is amended to read as follows:

§28-1001.1 Adoption of the New York city energy conservation code. In accordance with section 11-109 of the New York state energy law, which permits any municipality to promulgate a local energy conservation construction code, the city of New York hereby adopts the [2010 energy conservation construction code of New York state] New York state energy code in effect and any amendments thereto that are more stringent than such code adopted by the city of New York as the minimum requirements for the design, construction and alteration of buildings for the effective use of energy in the city. Such adoption shall be subject to amendments pursuant to local law and set forth in section 1001.2 of this chapter, which shall be known and cited as the “New York city amendments to the [2010 energy conservation construction code of New York

state.” Such edition of the 2010 energy conservation construction code of New York state] New York state energy code.” The New York state energy code with such New York city amendments shall together be known and cited as the “New York city energy conservation code (NYCECC).”

§3. The administrative code of the city of New York is amended by adding a new section 28-1001.1.1 to read as follows:

§28-1001.1.1 Definition. As used in this chapter, the term “New York State Energy Code” means the New York State Energy Conservation Construction Code (the “New York State Energy Code”), constituting part 1240 of title 19 of the New York codes, rules and regulations (19 NYCRR Part 1240), and the publications incorporated by reference in such part, promulgated on November 18, 2014 by the State Fire Prevention and Building Code Council pursuant to Article 11 of the New York State Energy Law.

§4. Section 28-1001.2 of the administrative code of the city of New York, as added by local law number 1 for the year 2011, is REPEALED and a new section 28-1001.2 is added to read as follows:

§28-1001.2 New York city amendments to the New York state energy code. The following New York city amendments to the New York state energy code are hereby adopted as set forth in sections 28-1001.2.1, 28-1001.2.2 and 28-1001.2.3.

§28-1001.2.1 New York city amendments to 19 NYCRR Part 1240.

1240.5 Exceptions.

Delete Exception (b) in its entirety and replace with a new Exception (b) to read as follows:

(b) Certain alterations. The following need not comply with the provisions of the New York State Energy 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.

§28-1001.2.2 New York city amendments to residential and commercial chapters of the

New York state energy code

CHAPTER 1 **GENERAL REQUIREMENTS**

Chapter 1 is deleted in its entirety and a new Chapter 1 is added to read as follows:

CHAPTER 1 **ADMINISTRATION**

Introductory Statement

The New York City Energy Conservation Code (“NYCECC”) is comprised of the New York State Energy Code (“NYSEC”) with amendments as enacted into law by the New York City Council.

Reflecting changes in the New York State Energy Code, the NYCECC is divided into provisions relevant to residential buildings and provisions relevant to commercial buildings as follows:

1. The provisions of the NYCECC for residential buildings are reflected in the state publications incorporated by reference in 19 NYCRR section 1240.3, as amended by sections 28-1001.2.1, 28-1001.2.2 and 28-1001.2.3 of the administrative code of the city of New York. Such state publications include (i) Chapters 1, 2, 3, 4, and 6 of the 2010 ECCCNY, as amended by Chapter 1 of the publication entitled the 2014 Supplement to the New York State Energy Conservation Construction Code (the “2014 Supplement”); and (ii) the referenced standards incorporated by reference in 19 NYCRR section 1240.3(b).
2. The provisions of the NYCECC for commercial buildings are reflected in the state publications incorporated by reference in 19 NYCRR section 1240.4, as amended by sections 28-1001.2.1, 28-1001.2.2 and 28-1001.2.3 of the administrative code of the city of New York. Such state publications include (i) Chapter 1 of the 2010 ECCCNY, as amended by Chapter 1 of the 2014 Supplement; (ii) Chapters C2, C3, and C4 in the “commercial provisions” of the 2012 edition of the International Energy Conservation Code (the “2012 IECC”), as amended by Chapter 2 of the 2014 Supplement; (iii) the 2010 edition of Energy Standard for Buildings Except Low-Rise Residential Buildings (“ASHRAE 90.1-2010”), as amended by Chapter 3 of the 2014 Supplement; and (iv) reference standards incorporated by reference in 19 NYCRR section 1240.4(c).

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.

101.1.1 Titles.

The 2010 edition of the Energy Conservation Construction Code of New York State shall be known as the “2010 ECCCNY.”

The 2012 edition of the International Energy Code shall be known as the “2012 IECC.”

The 2010 edition of the Energy Standard for Buildings Except Low-Rise Residential Buildings shall be known as “ASHRAE 90.1-2010.” Where this code makes reference to ASHRAE 90.1-2010, such standard shall be as amended for New York City in accordance with Appendix A of this code.

The 2014 Supplement to the New York State Energy Conservation Construction Code shall be known as the “2014 Supplement.”

Chapters 1, 2, 3, 4 and 6 of the 2010 ECCCNY (as amended by Chapter 1 of the 2014 Supplement) and the referenced standards incorporated by reference in 19 NYCRR Section 1240.3(b) shall be known collectively as the “New York State Residential Energy Code.”

Chapter 1 of the 2010 ECCCNY (as amended by Chapter 1 of the 2014 Supplement), Chapters C2, C3, and C4 in the “commercial provisions” of the 2012 IECC (as amended by Chapter 2 of the 2014 Supplement), ASHRAE 90.1-2010 (as amended by Chapter 3 of the 2014 Supplement), and the referenced standards incorporated by reference in 19 NYCRR Section 1240.4(b), shall be known collectively as the “New York State Commercial Energy Code.”

The New York State Residential Energy Code and the New York State Commercial Energy Code shall be known collectively as the “New York State Energy Code.”

The New York State Energy Code along with the New York City amendments to the New York State Energy Code shall be known collectively as the “New York City Energy Conservation Code.”

101.2 Scope. This code applies to residential buildings and commercial buildings as defined in Chapter 2 and Chapter C2 of this code.

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 New York State Energy Code. Whenever any provision of the New York State Energy Code 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. It is intended that the residential provisions of the New York City Energy Conservation Code shall apply to additions, alterations, and renovations of existing residential buildings in all cases where the New York State Residential Energy Code would apply, and that the commercial provisions of the New York City Energy Conservation Code shall apply to additions, alterations, and renovations of existing commercial buildings in all cases where ASHRAE 90.1-2010 would apply. 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 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.

101.4.3.1 Prescriptive envelope compliance for additions. Additions shall comply with Sections 101.4.3.1.1 and 101.4.3.1.2 or alternatively with ASHRAE 90.1-2010 as amended by Appendix A of this code.

101.4.3.1.1 Vertical fenestration. New vertical fenestration area that results in a total building fenestration area less than or equal to that specified in Section C402.3.1 shall comply with Section C402.3. Additions with vertical fenestration that result in a total building fenestration area greater than Section C402.3.1 or additions that exceed the fenestration area greater than Section C402.3.1 shall comply with Section C402.3.1.1 for the addition only. Additions that result in a total building vertical glass area exceeding that specified in Section C402.3.1.1 shall comply with Section C407.

101.4.3.1.2 Skylight area. New skylight area that results in a total building fenestration area less than or equal to that specified in Section C402.3.1 shall comply with Section C402.3. Additions with skylight area that result in a total building skylight area greater than Section C402.3.1 or additions that exceed the skylight area greater than Section C402.3.1 shall comply with Section C402.3.1.2 for the addition only. Additions that result in a total building skylight area exceeding that specified in Section C402.3.1.2

shall comply with Section C407.

101.4.3.2 Alterations to building envelope. New building envelope assemblies that are part of the alteration shall comply with Sections 101.4.3.2.1 and 101.4.3.2.2 or alternatively with ASHRAE 90.1-2010 as amended by Appendix A of this code.

101.4.3.2.1 Vertical fenestration. The addition of vertical fenestration that results in a total building fenestration area less than or equal to that specified in Section C402.3.1 shall comply with Section C402.3. The addition of vertical fenestration that results in a total building fenestration area greater than Section C402.3.1 shall comply with Section C402.3.1.1 for the space adjacent to the new fenestration only. Alterations that result in a total building vertical glass area exceeding that specified in Section C402.3.1.1 shall comply with Section C407.

101.4.3.2.2 Skylight Area. The addition of skylight area that results in a total building skylight area less than or equal to that specified in Section C402.3.1 shall comply with Section C402.3. The addition of skylight area that results in a total building skylight area greater than Section C402.3.1 shall comply with Section C402.3.1.2 for the space adjacent to the new skylights. Alterations that result in a total building skylight area exceeding that specified in Section C402.3.1.2 shall comply with Section C407.

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 C405.5.2(1) or (2) to another use in Table C405.5.2(1) or C405.5.2(2), the installed lighting wattage shall comply with Section C405.5.

101.4.5 Change in space conditioning. Any non-conditioned 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 C4 for commercial.

101.5 Compliance. Residential buildings shall comply with the provisions of the New York City Energy Conservation Code applicable to residential buildings. Commercial buildings shall comply with the provisions of the New York City Energy Conservation Code applicable to commercial buildings.

101.5.1 Compliance software The use of computer software to demonstrate compliance with this code shall be in accordance with the requirements of Sections 101.5.1.1 or 101.5.1.2.

101.5.1.1 Residential buildings. Compliance with the residential provisions of the New York City Energy Conservation Code can be demonstrated through the use of (i) computer software that is developed by the United States Department of Energy (such as REScheck, REM/Rate home energy rating or REM/Design Home energy analysis software) specifically for the New York State Residential Energy Code, or (ii) any other building energy modeling

or home energy rating (HERS) software that shall have been expressly approved in writing by the New York Secretary of State as acceptable for demonstrating compliance with the New York State Residential Energy Code. Software programs used to show compliance with the residential provisions of the New York City Energy Conservation Code must indicate compliance with the New York State Residential Energy Code, and must reflect the actual requirements of the residential provisions of the New York City Energy Conservation Code. When using the software approach to show compliance, the mandatory code provisions of the residential provisions of the New York City Energy Conservation Code must be followed.

101.5.1.2 Commercial buildings. Compliance with the commercial provisions of the New York City Energy Conservation Code can be demonstrated through the use of (i) computer software that is developed by the United States Department of Energy (such as COMCheck) specifically for the New York State Commercial Energy Code (or specifically for ASHRAE 90.1-2010, as amended by Chapter 3 of the 2014 Supplement), or (ii) other software that shall have been expressly approved in writing by the New York Secretary of State as acceptable for demonstrating compliance with the New York State Commercial Energy Code (or for demonstrating compliance with ASHRAE 90.1-2010, as amended by Chapter 3 of the 2014 Supplement). Software programs used to show compliance with the commercial provisions of the New York City Energy Conservation Code must indicate compliance with the New York State Commercial Energy Code (or compliance with ASHRAE 90.1-2010, as amended by Chapter 3 of the 2014 Supplement), and must reflect the actual requirements of the New York State Commercial Energy Code (or the actual requirements of ASHRAE 90.1-2010, as amended by Chapter 3 of the 2014 Supplement). When using the software approach to show compliance with the commercial provisions of the New York City Energy Conservation Code, the mandatory code provisions in Chapters C2 through C5 (or, if applicable, the mandatory provisions of ASHRAE 90.1-2010, as amended by Appendix A of the New York City Energy Conservation Code) must be followed.

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/m²) or 1.0 watt per square foot (10.7 W/m²) 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 C4 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 Chapters 2, 3, and 4 of the New York City Energy Conservation Code shall be those that are listed in Chapter 6 of the New York City Energy Conservation Code, and in the rules of the department and such standards shall be considered part of the requirements of the residential provisions of the New York City Energy Conservation Code to the prescribed extent of each such reference. The standards referenced in Chapters C2, C3, and C4 of the New York City Energy Conservation Code shall be those that are listed in Chapter C5 of the New York City Energy Conservation Code, and in the rules of the department and such standards shall be considered part of the requirements of the commercial provisions of the New York City Energy Conservation 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.

CHAPTER 2 **DEFINITIONS**

SECTION 202
GENERAL DEFINITIONS

Revise the definition of “Addition” after the definition of “Accessible,” to read as follows:

ADDITION. An extension or increase in the conditioned space floor area or height of a building or structure.

Revise the definition of “Approved” after the definition of “Alteration,” to read as follows:

APPROVED. See Section 28-101.5 of the Administrative Code.

Add a new definition of “Approved agency” after the definition of “Approved,” to read as follows:

APPROVED AGENCY. See Section 28-101.5 of the Administrative Code.

Add a new definition of “Authority having jurisdiction” after the definition of “Area weighted average,” to read as follows:

AUTHORITY HAVING JURISDICTION. The commissioner or the commissioner’s designee.

Delete the definition “Basement Wall” after the definition of “Automatic.”

Revise the term “Code enforcement official” and add the term “Code official” after the definition of “C-factor (thermal conductance),” to read as follows:

CODE ENFORCEMENT OFFICIAL. The commissioner or the commissioner’s designee.

CODE OFFICIAL. The commissioner or the commissioner’s designee.

Add a new definition of “Grade plane” after the definition of “F-factor,” to read as follows:

GRADE PLANE. A reference plane representing the average of finished ground level adjoining the building at exterior walls. Where the finished ground level slopes away from the exterior walls, the reference plane shall be established by the lowest points within the area between the building and the lot line or, where the lot line is more than 6 feet (1829 mm) from the building, between the building and a point 6 feet (1829 mm) from the building.

Add a new definition of “Lead energy professional” after the definition of “Labeled,” to read as follows:

LEAD ENERGY PROFESSIONAL. The registered design professional who signs and seals the energy analysis for an entire project. Such individual may be the same registered design professional who signs and seals the design drawings for the same project.

Add new definitions of “Professional certification” and “Project” after the definition of “Nameplate Horsepower,” to read as follows:

PROFESSIONAL CERTIFICATION. See Section 28-101.5 of the Administrative Code.

PROJECT. A design and construction undertaking comprised of work related to one or more buildings and the site improvements. A project is represented by one or more plan/work applications, including construction documents compiled in accordance with Section 107 of the New York City Building Code, that relate either to the construction of a new building or buildings or to the demolition or alteration of an existing building or buildings. Applications for a project may have different registered design professionals and different job numbers, and may result in the issuance of one or more permits.

CHAPTER 6 **REFERENCED STANDARDS**

At the end of the first paragraph, add the following sentence:

Refer to the rules of the department for any subsequent additions, modifications or deletions that may have been made to the referenced standards set forth herein in accordance with Section 28-103.19 of the Administrative Code.

Delete the referenced standard titled “AAMA” in its entirety and replace with a new referenced standard titled “AAMA,” to read as follows:

<u>AAMA</u>	<u>American Architectural Manufacturers Association</u> <u>1827 Walden Office Square, Suite 550</u> <u>Schaumburg, IL 60173-4268</u>	
<u>Standard</u> <u>reference</u> <u>number</u>	<u>Title</u>	<u>Referenced</u> <u>in code</u> <u>section number</u>
<u>AAMA/WDMA/CSA</u> <u>101/LS.2/A440—08</u>	<u>Specifications for Windows, Doors and Unit Skylights</u>	<u>402.4.4</u>

Delete the referenced standard titled “ACCA” in its entirety and replace with a new referenced standard titled “ACCA,” to read as follows:

ACCA

Air Conditioning Contractors of America
2800 Shirlington Road, Suite 300
Arlington, VA 22206

<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
Manual J—87	Residential Load Calculation Seventh Edition	403.6, 405.6.1

Delete the referenced standard titled “AFPA” in its entirety and replace with a new referenced standard titled “AFPA,” to read as follows:

AFPA

American Forest & Paper Association
1111 19th St, NW, Suite 800
Washington, DC 20036

<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
*NDS—05	National Design Specification (NDS) for Wood Construction with 2005 Supplement	Table 402.1.5.1, Table 402.1.5.2

Delete the referenced standard titled “AHRI” in its entirety.

Delete the referenced standard titled “AISI” in its entirety and replace with a new referenced standard titled “AISI,” to read as follows:

AISI

American Iron and Steel Institute
1140 Connecticut Avenue, Suite 705
Washington, DC 20036

<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
S230—07	Standard for Cold-Formed Steel Framing-Prescriptive Method for One- and Two-Family Dwellings	Table 402.1.5.1, Table 402.1.5.2

Delete the referenced standard titled “AMCA” in its entirety.

Delete the referenced standard titled “ANSI” in its entirety and replace with a new referenced standard titled “ANSI,” to read as follows:

ANSI

American National Standards Institute
25 West 43rd Street, Fourth Floor
New York, NY 10036

<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
Z21.50—07	Vented Gas Fireplace (CSA ANSI Z21.50/CSA 2.22)	303.1.5
Z21.60—03	Decorative Gas Burning Appliances for Installation in Solid-Fuel Burning Fireplaces with addenda Z21.60a—2003 (CSA ANSI Z21.50/CSA 2.26)	303.1.5
Z21.50/CSA 2.22—07	Vented Gas Fireplaces (ANSI Z21.50/CSA 2.22)	303.1.5
Z21.60/CSA	Decorative Gas Burning Appliances for Installation in	303.1.5

2.26—03	<u>Solid Fuel Burning Fireplaces with Addendum Z21.60a—2003 (ANSI Z21.60/CSA 2.26)</u>	
*Z65—96	<u>Method for Measuring Floor Area in Office Buildings</u>	<u>402.4.2.1, 403.2.2</u>

Delete the referenced standard titled “ASHRAE” in its entirety and replace with a new referenced standard titled “ASHRAE,” to read as follows:

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
1791 Tullie Circle, NE
Atlanta, GA 30329-2305

<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
*119—88 (RA 2004)	<u>Air Leakage Performance for Detached Single-family Residential Buildings</u>	<u>Table 405.5.2(1)</u>
*ASHRAE/ANSI- 152—04 ^a	<u>Method of Test for Determining the Design and Seasonal Efficiencies of Residential Thermal Distribution Systems</u>	<u>403.2.2</u>
*ASHRAE—05	<u>ASHRAE Handbook of Fundamentals—2005</u>	<u>402.1.4, Table 405.5.2(1)</u>

Delete the referenced standard titled “ASME” in its entirety.

Delete the referenced standard titled “ASTM” in its entirety and replace with a new referenced standard titled “ASTM,” to read as follows:

ASTM International
100 Barr Harbor Drive
West Conshohocken, PA 19428-2859

<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
E 84—04	<u>Standard Test Method for Surface Burning Characteristics of Building Materials</u>	<u>402.4.1(12)(c)</u>
E 283—04	<u>Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen</u>	<u>202, 402.4.3</u>
*E 779—99	<u>Standard Test Method for Determining Air Leakage Rate by Fan Pressurization</u>	<u>402.4.2.1</u>
*E 1554—03	<u>Standard Test Methods for Determining Air Leakage of Air Distribution Systems by Fan Pressurization</u>	<u>403.2.2</u>
E 2178—03	<u>Standard Test Method for Air Permeance of Building Materials</u>	<u>202</u>
F1667—03	<u>Standard Specification for Driven Fasteners: Nails, Spikes, and Staples</u>	<u>Table 402.1.5.1, Table 402.1.5.2</u>

Delete the referenced standard titled “CSA” in its entirety and replace with a new referenced standard titled “CSA,” to read as follows:

Canadian Standards Association
5060 Spectrum Way
Mississauga, Ontario, Canada L4W 5N6

<u>Standard</u>	<u>Title</u>	<u>Referenced</u>
-----------------	--------------	-------------------

<u>reference number</u>		<u>in code section number</u>
<u>AAMA/WDMA/CSA 101/I.S.2/A440—08</u>	<u>Specifications for Windows, Doors and Unit Skylights</u>	<u>402.4.4</u>

Delete the referenced standard titled “DOE” in its entirety and replace with a new referenced standard titled “DOE,” to read as follows:

<u>DOE</u>		
<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
(Current Edition)	State Energy Price and Expenditure Report	405.3

U.S. Department of Energy
c/o Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402-9325

Delete the referenced standard titled “ICC” in its entirety and replace with a new referenced standard titled “ICC,” to read as follows:

<u>ICC</u>		
<u>Standard Reference Number</u>	<u>Title</u>	<u>Referenced in code section number</u>
	<u>International Code Council, Inc.</u> <u>500 New Jersey Avenue, NW 6th Floor</u> <u>Washington, D.C. 20001</u>	
<u>BCNYS-10</u>	<u>Building Code of New York State.....</u>	<u>101.2.1, 201.3, 303.1.5, 303.2, T402.1.1,</u>
<u>EBNYS-10</u>	<u>Existing Building Code of New York State.....</u>	<u>101.2.1</u>
<u>ECCCNYS-10</u>	<u>Energy Conservation Construction Code of New York State.....</u>	<u>101.2.3, 101.5.1</u>
<u>FCNYS-10</u>	<u>Fire Code of New York State.....</u>	<u>101.2.1, 201.3</u>
<u>FGNYS-10</u>	<u>Fuel Gas Code of New York State.....</u>	<u>101.2.1, 201.3</u>
<u>MCNYS-10</u>	<u>Mechanical Code of New York State.....</u>	<u>101.2.1, 201.3</u>
<u>NYCECC-10</u>	<u>New York City Energy Conservation Code.....</u>	<u>101.1, 101.5.3.2, 101.5.3.3, 104.3</u>
<u>PCNYS-10</u>	<u>Plumbing Code of New York State.....</u>	<u>101.2.1, 201.3</u>
<u>PMNYS-10</u>	<u>Property Maintenance Code of New York State.....</u>	<u>101.2.1</u>
<u>RCNYS-10</u>	<u>Residential Code of New York State.....</u>	<u>101.2.1, 201.3, 202, 303.1.5, T402.1.1,</u> <u>402.1.5.1, 402.1.5.2, 402.2.1.1, 402.4.1(12),</u> <u>403.2.2, T405.5.2(1)</u>
<u>NYCAC-14</u>	<u>New York City Administrative Code.....</u>	<u>101.1, 101.2.1, 101.5.3.2, 101.5.3.3, 102.1,</u> <u>103.1, 103.2.1, 103.3, 104.1, 104.1.1, 104.3,</u> <u>105.1</u>
<u>NYCBC-14</u>	<u>New York City Building Code.....</u>	<u>101.2.1, 101.2.2, 102.1, 103.1, 103.2.1,</u> <u>201.3, 303.1.5, 303.2</u>
<u>NYCEC-11</u>	<u>New York City Electrical Code.....</u>	<u>101.2.1, 201.3</u>
<u>NYCFC-14</u>	<u>New York City Fire Code.....</u>	<u>101.2.1, 201.3</u>
<u>NYCFG-14</u>	<u>New York City Fuel Gas Code.....</u>	<u>102.1, 201.3</u>
<u>NYCMC-14</u>	<u>New York City Mechanical Code.....</u>	<u>102.1, 201.3, 403.2.2</u>
<u>NYCPC-14</u>	<u>New York City Plumbing Code.....</u>	<u>102.1, 201.3</u>

Delete the referenced standard titled “IESNA” in its entirety.

Delete the referenced standard titled “NFRC” in its entirety and replace with a new referenced standard titled “NFRC,” to read as follows:

<u>NFRC</u>		
<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
	<u>National Fenestration Rating Council, Inc.</u> <u>8484 Georgia Avenue, Suite 320</u> <u>Silver Spring, MD 20910</u>	

<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
100—01	<u>Procedure for Determining Fenestration Product U-Factors—Second Edition</u>	303.1.3
200—01	<u>Procedure for Determining Fenestration Product Solar Heat Gain Coefficients and Visible Transmittance at Normal Incidence—Second Edition</u>	303.1.3
400—01	<u>Procedure for Determining Fenestration Product Air Leakage—Second Edition</u>	402.4.4

Add a new referenced standard titled “NYC” after “NFRC,” to read as follows:

<u>NYC</u>	<u>New York City Department of Buildings 280 Broadway New York, NY 10007</u>	<u>Referenced in code section number</u>
<u>Standard Reference Number</u>	<u>Title</u>	<u>Referenced in code section number</u>
NYCBC-68	1968 Building Code of the City of New York.....	101.2.1

Delete the referenced standard titled “SMACNA” in its entirety.

Delete the referenced standard titled “UL” in its entirety.

Delete the referenced standard titled “WDMA” in its entirety and replace with a new referenced standard titled “WDMA,” to read as follows:

<u>WDMA</u>	<u>Window and Door Manufacturers Association 1400 East Touhy Avenue, Suite 470 Des Plaines, IL 60018</u>	<u>Referenced in code section number</u>
<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
AAMA/WDMA/CSA 101/1.S.2/A440—08	<u>Specifications for Windows, Doors and Unit Skylights</u>	402.4.4

CHAPTER C2
DEFINITIONS

SECTION C202
GENERAL DEFINITIONS

Revise the definition of “Approved” after the definition of “Alteration,” to read as follows:

APPROVED. See Section 28-101.5 of the Administrative Code.

Add a new definition of “Approved agency” after the definition of “Approved,” to read as follows:

APPROVED AGENCY. See Section 28-101.5 of the Administrative Code.

Add a new definition of “Authority having jurisdiction” after the definition of “ASHRAE 90.1-2010,” to read as follows:

AUTHORITY HAVING JURISDICTION. The commissioner or the commissioner’s designee.

Add the term “Code enforcement official” and revise the term “Code official” after the definition of “C-factor (thermal conductance),” to read as follows:

CODE ENFORCEMENT OFFICIAL. The commissioner or the commissioner’s designee.

CODE OFFICIAL. The commissioner or the commissioner’s designee.

Add a new definition of “Electrical design load” after the definition of “Economizer, water,” to read as follows:

ELECTRICAL DESIGN LOAD. The electrical load that feeders and branch circuits are required to support pursuant to the relevant provisions of the New York City Electrical Code for the category of equipment loads being supported.

Add a new definition of “Grade plane” after the definition of “General lighting,” to read as follows:

GRADE PLANE. A reference plane representing the average of finished ground level adjoining the building at exterior walls. Where the finished ground level slopes away from the exterior walls, the reference plane shall be established by the lowest points within the area between the building and the lot line or, where the lot line is more than 6 feet (1829 mm) from the building, between the building and a point 6 feet (1829 mm) from the building.

Add a new definition of “Lead energy professional” after the definition of “Labeled,” to read as follows:

LEAD ENERGY PROFESSIONAL. The registered design professional who signs and seals the energy analysis for an entire project. Such individual may be the same registered design professional who signs and seals the design drawings for the same project.

Add a new definition of "Occupant sensor" after the definition of "Nonstandard part load value (NPLV)," to read as follows:

OCCUPANCY SENSOR. A device that detects the presence or absence of people within an area and causes lighting, equipment, or appliances to be regulated accordingly.

Add new definitions of "Photosensor" and "Professional certification" and "Project" after the definition of "On-Site renewable energy," to read as follows:

PHOTOSENSOR. A device that detects the presence of visible light.

PROFESSIONAL CERTIFICATION. See Section 28-101.5 of the Administrative Code.

PROJECT. A design and construction undertaking comprised of work related to one or more buildings and the site improvements. A project is represented by one or more plan/work applications, including construction documents compiled in accordance with Section 107 of the New York City Building Code, that relate either to the construction of a new building or buildings or to the demolition or alteration of an existing building or buildings. Applications for a project may have different registered design professionals and different job numbers, and may result in the issuance of one or more permits.

CHAPTER C4 **COMMERCIAL ENERGY EFFICIENCY**

SECTION C401 **GENERAL**

C401.2 Application.

Delete Item 1 and replace with a new Item 1 to read as follows:

1. The requirements of ASHRAE 90.1-2010, as amended by Appendix A of the New York City Energy Conservation Code; or

Delete Item 3 and replace with a new Item 3 to read as follows:

3. Performance. The requirements of Section C407.

C401.2.1 Application to existing buildings.

Delete Item 3 and replace with a new Item 3 to read as follows:

3. The requirements of ASHRAE 90.1-2010, as amended by Appendix A of the New York City Energy Conservation Code.

SECTION C402
BUILDING ENVELOPE REQUIREMENTS

C402.1.1 Insulation and fenestration criteria.

The reference to “ASHRAE 90.1-2010, as amended by Chapter 3 of the 2014 Supplement” shall be deemed to be a reference to “ASHRAE 90.1-2010, as amended by Appendix A of the New York City Energy Conservation Code.”

SECTION C403
BUILDING MECHANICAL SYSTEMS

TABLE C403.2.3(1)

Delete Table C403.2.3(1) in its entirety and replace with a new Table C403.2.3(1) to read as follows:

TABLE C403.2.3(1)
MINIMUM EFFICIENCY REQUIREMENTS:
ELECTRICALLY OPERATED UNITARY AIR CONDITIONERS AND
CONDENSING UNITS

<u>EQUIPMENT TYPE</u>	<u>SIZE CATEGORY</u>	<u>HEATING SECTION TYPE</u>	<u>SUBCATEGORY OR RATING CONDITION</u>	<u>MINIMUM EFFICIENCY</u>		<u>TEST PROCEDURE^a</u>
				<u>Before 6/1/2011</u>	<u>As of 6/1/2011</u>	
<u>Air conditioners, air cooled</u>	<u>< 65,000 Btu/h^b</u>	<u>All</u>	<u>Split System</u>	<u>13.0 SEER</u>	<u>13.0 SEER</u>	<u>AHRI 210/240</u>
			<u>Single Package</u>	<u>13.0 SEER</u>	<u>14.0 SEER</u>	
<u>Through-the-wall (air cooled)</u>	<u>≤ 30,000 Btu/h^b</u>	<u>All</u>	<u>Split system</u>	<u>12.0 SEER</u>	<u>13.0 SEER</u>	
			<u>Single Package</u>	<u>12.0 SEER</u>	<u>14.0 SEER</u>	
<u>Small-duct high-velocity (air cooled)</u>	<u>< 65,000 Btu/h^b</u>	<u>All</u>	<u>Split System</u>	<u>10.0 SEER</u>	<u>11.0 SEER</u>	
<u>Air conditioners, air cooled</u>	<u>≥ 65,000 Btu/h and < 135,000 Btu/h</u>	<u>Electric Resistance (or None)</u>	<u>Split System and Single Package</u>	<u>11.2 EER</u> <u>11.4 IEER</u>	<u>11.2 EER</u> <u>11.4 IEER</u>	
		<u>All other</u>	<u>Split System and Single Package</u>	<u>11.0 EER</u> <u>11.2 IEER</u>	<u>11.0 EER</u> <u>11.2 IEER</u>	
	<u>≥ 135,000 Btu/h and < 240,000 Btu/h</u>	<u>Electric Resistance (or None)</u>	<u>Split System and Single Package</u>	<u>11.0 EER</u> <u>11.2 IEER</u>	<u>11.0 EER</u> <u>11.2 IEER</u>	
		<u>All other</u>	<u>Split System and Single Package</u>	<u>10.8 EER</u> <u>11.0 IEER</u>	<u>10.8 EER</u> <u>11.0 IEER</u>	
	<u>≥ 240,000 Btu/h and < 760,000 Btu/h</u>	<u>Electric Resistance (or None)</u>	<u>Split System and Single Package</u>	<u>10.0 EER</u> <u>10.1 IEER</u>	<u>10.0 EER</u> <u>10.1 IEER</u>	
		<u>All other</u>	<u>Split System and Single Package</u>	<u>9.8 EER</u> <u>9.9 IEER</u>	<u>9.8 EER</u> <u>9.9 IEER</u>	
	<u>≥ 760,000 Btu/h</u>	<u>Electric Resistance (or None)</u>	<u>Split System and Single Package</u>	<u>9.7 EER</u> <u>9.8 IEER</u>	<u>9.7 EER</u> <u>9.8 IEER</u>	

		<u>All other</u>	<u>Split System and Single Package</u>	<u>9.5 EER</u> <u>9.6 IEER</u>	<u>9.5 EER</u> <u>9.6 IEER</u>	
<u>Air conditioners, water cooled</u>	<u>< 65,000 Btu/h^b</u>	<u>All</u>	<u>Split System and Single Package</u>	<u>12.1 EER</u> <u>12.3 IEER</u>	<u>12.1 EER</u> <u>12.3 IEER</u>	<u>AHRI 210/240</u>
	<u>≥ 65,000 Btu/h and < 135,000 Btu/h</u>	<u>Electric Resistance (or None)</u>	<u>Split System and Single Package</u>	<u>11.5 EER</u> <u>11.7 IEER</u>	<u>12.1 EER</u> <u>12.3 IEER</u>	<u>AHRI 340/360</u>
		<u>All other</u>	<u>Split System and Single Package</u>	<u>11.3 EER</u> <u>11.5 IEER</u>	<u>11.9 EER</u> <u>12.1 IEER</u>	
	<u>≥ 135,000 Btu/h and < 240,000 Btu/h</u>	<u>Electric Resistance (or None)</u>	<u>Split System and Single Package</u>	<u>11.0 EER</u> <u>11.2 IEER</u>	<u>12.5 EER</u> <u>12.7 IEER</u>	
		<u>All other</u>	<u>Split System and Single Package</u>	<u>10.8 EER</u> <u>11.0 IEER</u>	<u>12.3 EER</u> <u>12.5 IEER</u>	
	<u>≥ 240,000 Btu/h and < 760,000 Btu/h</u>	<u>Electric Resistance (or None)</u>	<u>Split System and Single Package</u>	<u>11.0 EER</u> <u>11.1 IEER</u>	<u>12.4 EER</u> <u>12.6 IEER</u>	
		<u>All other</u>	<u>Split System and Single Package</u>	<u>10.8 EER</u> <u>10.9 IEER</u>	<u>12.2 EER</u> <u>12.4 IEER</u>	
	<u>≥ 760,000 Btu/h</u>	<u>Electric Resistance (or None)</u>	<u>Split System and Single Package</u>	<u>11.0 EER</u> <u>11.1 IEER</u>	<u>12.0 EER</u> <u>12.4 IEER</u>	
		<u>All other</u>	<u>Split System and Single Package</u>	<u>10.8 EER</u> <u>10.9 IEER</u>	<u>12.0 EER</u> <u>12.2 IEER</u>	

(continued)

TABLE C403.2.3(1)—CONTINUED
MINIMUM EFFICIENCY REQUIREMENTS:
ELECTRICALLY OPERATED UNITARY AIR CONDITIONERS AND
CONDENSING UNITS

<u>EQUIPMENT TYPE</u>	<u>SIZE CATEGORY</u>	<u>HEATING SECTION TYPE</u>	<u>SUB-CATEGORY OR RATING CONDITION</u>	<u>MINIMUM EFFICIENCY</u>		<u>TEST PROCEDURE^a</u>
				<u>Before 6/1/2011</u>	<u>As of 6/1/2011</u>	
Air conditioners, evaporatively cooled	$< 65,000$ Btu/h ^b	All	Split System and Single Package	<u>12.1 EER</u> <u>12.3 IEER</u>	<u>12.1 EER</u> <u>12.3 IEER</u>	AHRI 210/240
	$\geq 65,000$ Btu/h and $< 135,000$ Btu/h	Electric Resistance (or None)	Split System and Single Package	<u>11.5 EER</u> <u>11.7 IEER</u>	<u>12.1 EER</u> <u>12.3 IEER</u>	AHRI 340/360
		All other	Split System and Single Package	<u>11.3 EER</u> <u>11.5 IEER</u>	<u>11.9 EER</u> <u>12.1 IEER</u>	
	$\geq 135,000$ Btu/h and $< 240,000$ Btu/h	Electric Resistance (or None)	Split System and Single Package	<u>11.0 EER</u> <u>11.2 IEER</u>	<u>12.0 EER</u> <u>12.2 IEER</u>	
		All other	Split System and Single Package	<u>10.8 EER</u> <u>11.0 IEER</u>	<u>11.8 EER</u> <u>12.0 IEER</u>	
	$\geq 240,000$ Btu/h and $< 760,000$ Btu/h	Electric Resistance (or None)	Split System and Single Package	<u>11.0 EER</u> <u>11.1 IEER</u>	<u>11.9 EER</u> <u>12.1 EER</u>	
		All other	Split System and Single Package	<u>10.8 EER</u> <u>10.9 IEER</u>	<u>11.5 EER</u> <u>11.7 EER</u>	
	$\geq 760,000$ Btu/h	Electric Resistance (or None)	Split System and Single Package	<u>11.0 EER</u> <u>11.1 IEER</u>	<u>11.7 EER</u> <u>11.9 EER</u>	
		All other	Split System and Single Package	<u>10.8 EER</u> <u>10.9 IEER</u>	<u>11.5 EER</u> <u>11.7 EER</u>	

<u>Condensing units, air cooled</u>	<u>$\geq 135,000$ Btu/h</u>			<u>10.1</u> <u>EER</u> <u>11.4</u> <u>IEER</u>	<u>10.5</u> <u>EER</u> <u>14.0</u> <u>IEER</u>	<u>AHRI</u> <u>365</u>
<u>Condensing units, water cooled</u>	<u>$\geq 135,000$ Btu/h</u>			<u>13.1</u> <u>EER</u> <u>13.6</u> <u>IEER</u>	<u>13.5</u> <u>EER</u> <u>14.0</u> <u>IEER</u>	
<u>Condensing units, evaporatively cooled</u>	<u>$\geq 135,000$ Btu/h</u>			<u>13.1</u> <u>EER</u> <u>13.6</u> <u>IEER</u>	<u>13.5</u> <u>EER</u> <u>14.0</u> <u>IEER</u>	

For SI: 1 British thermal unit per hour = 0.2931 W.

- a. Chapter 6 of the referenced standard contains a complete specification of the referenced test procedure, including the reference year version of the test procedure.
- b. Single-phase, air-cooled air conditioners less than 65,000 Btu/h are regulated by NAECA. SEER values are those set by NAECA.

TABLE C403.2.3(2)

Delete Table C403.2.3(2) in its entirety and replace with a new Table C403.2.3(2) to read as follows:

TABLE C403.2.3(2)
MINIMUM EFFICIENCY REQUIREMENTS:
ELECTRICALLY OPERATED UNITARY AND APPLIED HEAT PUMPS

<u>EQUIPMENT TYPE</u>	<u>SIZE CATEGORY</u>	<u>HEATING SECTION TYPE</u>	<u>SUBCATEGORY OR RATING CONDITION</u>	<u>MINIMUM EFFICIENCY</u>	<u>TEST PROCEDURE^a</u>
<u>Air cooled (cooling mode)</u>	<u>< 65,000 Btu/h^b</u>	<u>All</u>	<u>Split System</u>	<u>14.0 SEER</u>	<u>AHRI 210/240</u>
			<u>Single Packaged</u>	<u>14.0 SEER</u>	
<u>Through-the-wall, air cooled</u>	<u>≤ 30,000 Btu/h^b</u>	<u>All</u>	<u>Split System</u>	<u>14.0 SEER</u>	
			<u>Single Packaged</u>	<u>14.0 SEER</u>	
<u>Single-duct high-velocity air cooled</u>	<u>< 65,000 Btu/h^b</u>	<u>All</u>	<u>Split System</u>	<u>13.0 SEER</u>	
<u>Air cooled (cooling mode)</u>	<u>≥ 65,000 Btu/h and < 135,000 Btu/h</u>	<u>Electric Resistance (or None)</u>	<u>Split System and Single Package</u>	<u>11.0 EER</u> <u>11.2 IEER</u>	
		<u>All other</u>	<u>Split System and Single Package</u>	<u>10.8 EER</u> <u>11.0 IEER</u>	
	<u>≥ 135,000 Btu/h and < 240,000 Btu/h</u>	<u>Electric Resistance (or None)</u>	<u>Split System and Single Package</u>	<u>10.6 EER</u> <u>10.7 IEER</u>	
		<u>All other</u>	<u>Split System and Single Package</u>	<u>10.4 EER</u> <u>10.5 IEER</u>	
	<u>≥ 240,000 Btu/h</u>	<u>Electric Resistance (or None)</u>	<u>Split System and Single Package</u>	<u>9.5 EER</u> <u>9.6 IEER</u>	
		<u>All other</u>	<u>Split System and Single Package</u>	<u>9.3 EER</u> <u>9.4 IEER</u>	
<u>Water source (cooling mode)</u>	<u>< 17,000 Btu/h</u>	<u>All</u>	<u>86°F entering water</u>	<u>11.2 EER</u>	<u>ISO 13256-1</u>
	<u>≥ 17,000 Btu/h and < 65,000 Btu/h</u>	<u>All</u>	<u>86°F entering water</u>	<u>12.0 EER</u>	

	$\geq 65,000$ Btu/h and $< 135,000$ Btu/h	All	86°F entering water	12.0 EER	
Ground water source (cooling mode)	$< 135,000$ Btu/h	All	59°F entering water	16.2 EER	
		All	77°F entering water	13.4 EER	
Water- source water to water (cooling mode)	$< 135,000$ Btu/h	All	86°F entering water	10.6 EER	ISO 13256-2
			59°F entering water	16.3 EER	
Ground water source Brine to water (cooling mode)	$< 135,000$ Btu/h	All	77°F entering fluid	12.1 EER	
Air cooled (heating mode)	$< 65,000$ Btu/h ^b	=	Split System	8.2 HSPF	
		=	Single Package	8.0 HSPF	
Through-the- wall, (air cooled, heating mode)	$\leq 30,000$ Btu/h ^b (cooling capacity)	=	Split System	8.2 HSPF	AHRI 210/240
		=	Single Package	8.0 HSPF	
Small-duct high velocity (air cooled, heating mode)	$< 65,000$ Btu/h ^b	=	Split System	7.7 HSPF	

(continued)

TABLE C403.2.3(2)—CONTINUED
MINIMUM EFFICIENCY REQUIREMENTS:
ELECTRICALLY OPERATED UNITARY AND APPLIED HEAT PUMPS

<u>EQUIPMENT TYPE</u>	<u>SIZE CATEGORY</u>	<u>HEATING SECTION TYPE</u>	<u>SUB-CATEGORY OR RATING CONDITION</u>	<u>MINIMUM EFFICIENCY</u>	<u>TEST PROCEDURE^a</u>
<u>Air cooled (heating mode)</u>	<u>≥ 65,000 Btu/h and < 135,000 Btu/h (cooling capacity)</u>	=	<u>47°F db/43°F wb Outdoor Air</u>	<u>3.3 COP</u>	<u>AHRI 340/360</u>
			<u>17°F db/15°F wb Outdoor Air</u>	<u>2.25 COP</u>	
	<u>≥ 135,000 Btu/h (cooling capacity)</u>	=	<u>47°F db/43°F wb Outdoor Air</u>	<u>3.2 COP</u>	
			<u>17°F db/15°F wb Outdoor Air</u>	<u>2.05 COP</u>	
<u>Water source (heating mode)</u>	<u>< 135,000 Btu/h (cooling capacity)</u>	=	<u>68°F entering water</u>	<u>4.2 COP</u>	<u>ISO 13256-1</u>
<u>Ground water source (heating mode)</u>	<u>< 135,000 Btu/h (cooling capacity)</u>	=	<u>50°F entering water</u>	<u>3.6 COP</u>	
<u>Ground source (heating mode)</u>	<u>< 135,000 Btu/h (cooling capacity)</u>	=	<u>32°F entering fluid</u>	<u>3.1 COP</u>	
<u>Water-source water to water (heating mode)</u>	<u>< 135,000 Btu/h (cooling capacity)</u>	=	<u>68°F entering water</u>	<u>3.7 COP</u>	
		=	<u>50°F entering water</u>	<u>3.1 COP</u>	
<u>Ground source brine to water (heating mode)</u>	<u>< 135,000 Btu/h (cooling capacity)</u>	=	<u>32°F entering fluid</u>	<u>2.5 COP</u>	<u>ISO 13256-2</u>

For SI: 1 British thermal unit per hour = 0.2931 W, °C = [(°F) - 32]/1.8.

- a. Chapter 6 of the referenced standard contains a complete specification of the referenced test procedure, including the reference year version of the test procedure.
- b. Single-phase, air-cooled air conditioners less than 65,000 Btu/h are regulated by NAECA. SEER values are those set by NAECA.

TABLE C403.2.3(3)

Delete Table C403.2.3(3) in its entirety and replace with a new Table C403.2.3(3) to read as follows:

TABLE C403.2.3(3)
MINIMUM EFFICIENCY REQUIREMENTS:
ELECTRICALLY OPERATED PACKAGED TERMINAL AIR
CONDITIONERS,PACKAGED TERMINAL HEAT PUMPS, SINGLE-PACKAGE
VERTICAL AIR CONDITIONERS,SINGLE VERTICAL HEAT PUMPS, ROOM
AIR CONDITIONERS AND ROOM AIR-CONDITIONER HEAT PUMPS

<u>EQUIPMENT TYPE</u>	<u>SIZE CATEGORY (INPUT)</u>	<u>SUBCATEGORY OR RATING CONDITION</u>	<u>MINIMUM EFFICIENCY</u>		<u>TEST PROCEDURE^a</u>
			<u>Before 10/08/2012</u>	<u>As of 10/08/2012</u>	
<u>PTAC (cooling mode) new construction</u>	<u>All Capacities</u>	<u>95°F db outdoor air</u>	<u>12.5 - (0.213 x Cap/1000) EER</u>	<u>13.8 - (0.300 x Cap/1000) EER</u>	<u>AHRI 310/380</u>
<u>PTAC (cooling mode) replacements^b</u>	<u>All Capacities</u>	<u>95°F db outdoor air</u>	<u>10.9 - (0.213 x Cap/1000) EER</u>	<u>10.9 - (0.213 x Cap/1000) EER</u>	
<u>PTHP (cooling mode) new construction</u>	<u>All Capacities</u>	<u>95°F db outdoor air</u>	<u>12.3 - (0.213 x Cap/1000) EER</u>	<u>14.0 - (0.300 x Cap/1000) EER</u>	
<u>PTHP (cooling mode) replacements^b</u>	<u>All Capacities</u>	<u>95°F db outdoor air</u>	<u>10.8 - (0.213 x Cap/1000) EER</u>	<u>10.8 - (0.213 x Cap/1000) EER</u>	
<u>PTHP (heating mode) new construction</u>	<u>All Capacities</u>	=	<u>3.2 - (0.026 x Cap/1000) COP</u>	<u>3.2 - (0.026 x Cap/1000) COP</u>	
<u>PTHP (heating mode) replacements</u>	<u>All Capacities</u>	=	<u>2.9 - (0.026 x Cap/1000) COP</u>	<u>2.9 - (0.026 x Cap/1000) COP</u>	

b					
<u>SPVAC</u> <u>(cooling</u> <u>mode)</u>	<u>< 65,000</u> <u>Btu/h</u>	<u>95°F db/ 75°F</u> <u>wb</u> <u>outdoor air</u>	<u>9.0 EER</u>	<u>9.0 EER</u>	<u>AHRI 390</u>
	<u>≥ 65,000</u> <u>Btu/h and</u> <u>< 135,000</u> <u>Btu/h</u>	<u>95°F db/ 75°F</u> <u>wb</u> <u>outdoor air</u>	<u>8.9 EER</u>	<u>8.9 EER</u>	
	<u>≥ 135,000</u> <u>Btu/h and</u> <u>< 240,000</u> <u>Btu/h</u>	<u>95°F db/ 75°F</u> <u>wb</u> <u>outdoor air</u>	<u>8.6 EER</u>	<u>8.6 EER</u>	
<u>SPVHP</u> <u>(cooling</u> <u>mode)</u>	<u>< 65,000</u> <u>Btu/h</u>	<u>95°F db/ 75°F</u> <u>wb</u> <u>outdoor air</u>	<u>9.0 EER</u>	<u>9.0 EER</u>	<u>AHRI 390</u>
	<u>≥ 65,000</u> <u>Btu/h and</u> <u>< 135,000</u> <u>Btu/h</u>	<u>95°F db/ 75°F</u> <u>wb</u> <u>outdoor air</u>	<u>8.9 EER</u>	<u>8.9 EER</u>	
	<u>≥ 135,000</u> <u>Btu/h and</u> <u>< 240,000</u> <u>Btu/h</u>	<u>95°F db/ 75°F</u> <u>wb</u> <u>outdoor air</u>	<u>8.6 EER</u>	<u>8.6 EER</u>	
<u>SPVHP</u> <u>(heating</u> <u>mode)</u>	<u>< 65,000</u> <u>Btu/h</u>	<u>47°F db/ 43°F</u> <u>wb</u> <u>outdoor air</u>	<u>3.0 COP</u>	<u>3.0 COP</u>	<u>AHRI 390</u>
	<u>≥ 65,000</u> <u>Btu/h and</u> <u>< 135,000</u> <u>Btu/h</u>	<u>47°F db/ 43°F</u> <u>wb</u> <u>outdoor air</u>	<u>3.0 COP</u>	<u>3.0 COP</u>	
	<u>≥ 135,000</u> <u>Btu/h and</u> <u>< 240,000</u> <u>Btu/h</u>	<u>47°F db/ 75°F</u> <u>wb</u> <u>outdoor air</u>	<u>2.9 COP</u>	<u>2.9 COP</u>	

(continued)

TABLE C403.2.3(3)—CONTINUED
MINIMUM EFFICIENCY REQUIREMENTS:
ELECTRICALLY OPERATED PACKAGED TERMINAL AIR CONDITIONERS,
PACKAGED TERMINAL HEAT PUMPS, SINGLE-PACKAGE VERTICAL AIR
CONDITIONERS, SINGLE VERTICAL HEAT PUMPS, ROOM AIR
CONDITIONERS AND ROOM AIR-CONDITIONER HEAT PUMPS

<u>EQUIPMENT TYPE</u>	<u>SIZE CATEGORY (INPUT)</u>	<u>SUBCATEGORY OR RATING CONDITION</u>	<u>MINIMUM EFFICIENCY</u>		<u>TEST PROCEDURE</u> ^a
			<u>Before 10/08/2012</u>	<u>As of 10/08/2012</u>	
<u>Room air conditioners, with louvered slides</u>	<u>< 6,000 Btu/h</u>	=	<u>9.7 SEER</u>	<u>11.0 SEER</u>	<u>ANSI/AHAM RAC-1</u>
	<u>≥ 6,000 Btu/h and < 8,000 Btu/h</u>	=	<u>9.7 EER</u>	<u>11.0 EER</u>	
	<u>≥ 8,000 Btu/h and < 14,000 Btu/h</u>	=	<u>9.8 EER</u>	<u>10.9 EER</u>	
	<u>≥ 14,000 Btu/h and < 20,000 Btu/h</u>	=	<u>9.7 SEER</u>	<u>10.7 SEER</u>	
	<u>≥ 20,000 Btu/h</u>	=	<u>8.5 EER</u>	<u>9.4 EER</u>	
<u>Room air conditioners, without louvered slides</u>	<u>< 8,000 Btu/h</u>	=	<u>9.0 EER</u>	<u>10.0 EER</u>	
	<u>≥ 8,000 Btu/h and < 20,000 Btu/h</u>	=	<u>8.5 EER</u>	<u>9.5 EER</u>	
	<u>≥ 20,000 Btu/h</u>	=	<u>8.5 EER</u>	<u>9.4 EER</u>	
<u>Room air-conditioner heat pumps with louvered sides</u>	<u>< 20,000 Btu/h</u>	=	<u>9.0 EER</u>	<u>9.8 EER</u>	
	<u>≥ 20,000 Btu/h</u>	=	<u>8.5 EER</u>	<u>9.3 EER</u>	
<u>Room air-conditioner heat pumps without</u>	<u>< 14,000 Btu/h</u>	=	<u>8.5 EER</u>	<u>9.3 EER</u>	
	<u>≥ 14,000 Btu/h</u>	=	<u>8.0 EER</u>	<u>8.7 EER</u>	

<u>louvered sides</u>				
<u>Room air conditioner casement only</u>	<u>All capacities</u>	=	<u>8.7 EER</u>	<u>9.5 EER</u>
<u>Room air conditioner casement-slider</u>	<u>All capacities</u>	=	<u>9.5 EER</u>	<u>10.4 EER</u>

For SI: 1 British thermal unit per hour = 0.2931 W, °C = [(°F) - 32]/1.8.

“Cap” = The rated cooling capacity of the project in Btu/h. If the unit’s capacity is less than 7000 Btu/h, use 7000 Btu/h in the calculation. If the unit’s capacity is greater than 15,000 Btu/h, use 15,000 Btu/h in the calculations.

- a. Chapter 6 of the referenced standard contains a complete specification of the referenced test procedure, including the referenced year version of the test procedure.
- b. Replacement unit shall be factory labeled as follows: “MANUFACTURED FOR REPLACEMENT APPLICATIONS ONLY: NOT TO BE INSTALLED IN NEW CONSTRUCTION PROJECTS.” Replacement efficiencies apply only to units with existing sleeves less than 16 inches (406 mm) in height and less than 42 inches (1067 mm) in width.

TABLE C403.2.3(4)

Delete Table C403.2.3(4) in its entirety and replace with a new Table C403.2.3(4) to read as follows:

TABLE 403.2.3(4)
WARM AIR FURNACES AND COMBINATION WARM AIR FURNACES/AIR-CONDITIONING UNITS, WARM AIR DUCT FURNACES AND UNIT HEATERS, MINIMUM EFFICIENCY REQUIREMENTS

<u>EQUIPMENT TYPE</u>	<u>SIZE CATEGORY (INPUT)</u>	<u>SUBCATEGORY OR RATING CONDITION</u>	<u>MINIMUM EFFICIENCY^{d,e}</u>	<u>TEST PROCEDURE^a</u>
<u>Warm air furnaces, gas fired</u>	<u>< 225,000 Btu/h</u>	<u>=</u>	<u>80% AFUE or 80%E_t^c</u>	<u>DOE 10 CFR Part 430 or ANSI Z21.47</u>
	<u>≥ 225,000 Btu/h</u>	<u>Maximum capacity^c</u>	<u>81%E_t^f</u>	<u>ANSI Z21.47</u>
<u>Warm air furnaces, oil fired</u>	<u>< 225,000 Btu/h</u>	<u>=</u>	<u>80% AFUE or 80%E_t^c</u>	<u>DOE 10 CFR Part 430 or UL 727</u>
	<u>≥ 225,000 Btu/h</u>	<u>Maximum capacity^b</u>	<u>82%E_t^g</u>	<u>UL 727</u>
<u>Warm air duct furnaces, gas fired</u>	<u>All capacities</u>	<u>Maximum capacity^b</u>	<u>80%E_c</u>	<u>ANSI Z83.8</u>
<u>Warm air unit heaters, gas fired</u>	<u>All capacities</u>	<u>Maximum capacity^b</u>	<u>80%E_c</u>	<u>ANSI Z83.8</u>
<u>Warm air unit heaters, oil fired</u>	<u>All capacities</u>	<u>Maximum capacity^b</u>	<u>80%E_c</u>	<u>UL 731</u>

For SI: 1 British thermal unit per hour = 0.2931 W.

- Chapter 6 of the referenced standard contains a complete specification of the referenced test procedure, including the referenced year version of the test procedure.
- Minimum and maximum ratings as provided for and allowed by the unit's controls.
- Combination units not covered by the National Appliance Energy Conservation Act of 1987 (NAECA) (3-phase power or cooling capacity greater than or equal to 65,000 Btu/h [19 kW]) shall comply with either rating.
- E_t = Thermal efficiency. See test procedure for detailed discussion.
- E_c = Combustion efficiency (100% less flue losses). See test procedure for detailed discussion.
- E_c = Combustion efficiency. Units must also include an IID, have jackets not exceeding 0.75 percent of the input rating, and have either power venting or a flue damper. A vent damper is an acceptable alternative to a flue damper for those furnaces where combustion air is drawn from the conditioned space.
- E_t = Thermal efficiency. Units must also include an IID, have jacket losses not exceeding 0.75 percent of the input rating, and have either power venting or a flue damper. A vent damper is an acceptable alternative to a flue damper for those furnaces where combustion air is drawn from the conditioned space.

TABLE C403.2.3(5)

Delete Table C403.2.3(5) in its entirety and replace with a new Table C403.2.3(5) to read as follows:

TABLE C403.2.3(5)
MINIMUM EFFICIENCY REQUIREMENTS: GAS- AND OIL-FIRED BOILERS

<u>EQUIPMENT TYPE^a</u>	<u>SUBCATEGORY OR RATING CONDITION</u>	<u>SIZE CATEGORY (INPUT)</u>	<u>MINIMUM EFFICIENCY</u>	<u>TEST PROCEDURE</u>
<u>Boilers, hot water</u>	<u>Gas-fired</u>	<u>< 300,000 Btu/h</u>	<u>82% AFUE</u>	<u>10 CFR Part 430</u>
		<u>≥ 300,000 Btu/h and ≤ 2,500,000 Btu/h^b</u>	<u>83% E_t</u>	<u>10CFR Part 431</u>
		<u>> 2,500,000 Btu/h^a</u>	<u>84% E_c</u>	
	<u>Oil-fired^c</u>	<u>< 300,000 Btu/h</u>	<u>84% AFUE</u>	<u>10 CFR Part 430</u>
		<u>≥ 300,000 Btu/h and ≤ 2,500,000 Btu/h^b</u>	<u>84% E_t</u>	<u>10 CFR Part 431</u>
		<u>> 2,500,000 Btu/h^a</u>	<u>85% E_c</u>	
<u>Boilers, steam</u>	<u>Gas-fired</u>	<u>< 300,000 Btu/h</u>	<u>80% AFUE</u>	<u>10 CFR Part 430</u>
	<u>Gas-fired- all, except natural draft</u>	<u>≥ 300,000 Btu/h and ≤ 2,500,000 Btu/h^b</u>	<u>80% E_t</u>	<u>10CFR Part 431</u>
		<u>> 2,500,000 Btu/h^a</u>	<u>80% E_t</u>	
	<u>Gas-fired-natural draft</u>	<u>≥ 300,000 Btu/h and ≤ 2,500,000 Btu/h^b</u>	<u>79% E_t</u>	
		<u>> 2,500,000 Btu/h^a</u>	<u>79% E_t</u>	
	<u>Oil-fired^c</u>	<u>< 300,000 Btu/h</u>	<u>82% AFUE</u>	<u>10 CFR Part 430</u>

		$\geq 300,000$ <u>Btu/h and</u> $\leq 2,500,000$ <u>Btu/h^b</u>	$83\% E_t$	<u>10CFR Part</u> <u>431</u>
		$> 2,500,000$ <u>Btu/h^a</u>	$83\% E_t$	

For SI: 1 British thermal unit per hour = 0.2931 W.

E_c = Combustion efficiency (100 percent less flue losses). E_t = Thermal efficiency. See referenced standard c

document for detailed information.

a. These requirements apply to boilers with rated input of 8,000,000 Btu/h or less that are not packaged boilers and to all packaged boilers. Minimum efficiency requirements for boilers cover all capacities of packaged boilers.

b. Maximum capacity – minimum and maximum ratings as provided for and allowed by the unit’s controls.

c. Includes oil-fired (residual).

C403.4.2 Fan Airflow Control.

Renumber Section C403.4.2.1 Static pressure sensor location as Section C403.4.2.1.1 Static pressure sensor location.

Renumber Section C403.4.2.2 Setpoints for direct digital control as Section C403.4.2.1.2 Setpoints for direct digital control.

SECTION C405 **ELECTRICAL POWER AND LIGHTING SYSTEMS (MANDATORY)**

C405.2.2.2 Occupancy sensors.

Delete Section C405.2.2.2 in its entirety and replace with a new Section C405.2.2.2 to read as follows:

C405.2.2.2 Occupancy sensors. Automatic control devices shall be installed in the following spaces to automatically turn off lights within 30 minutes of all occupants leaving the space as follows:

1. Occupancy sensors shall be installed in all classrooms (not including shop classrooms, laboratory classrooms, and preschool classrooms), conference/meeting rooms, employee lunch and break rooms, and offices smaller than 200 square feet (18.5 m²) in area. These shall be manual-on switches. Such sensors and controls shall not have an override switch that converts from manual-on to automatic-on functionality. The occupant sensor may have a grace period of up to 30 seconds to turn on the lighting automatically after the sensor has turned off the lighting if occupancy is detected.
2. Occupancy sensors shall be installed in restrooms, storage rooms, private offices 200 square feet (18.5 m²) in area or greater, janitorial closets, and other spaces 300 square feet in area or less enclosed by floor-to-ceiling height partitions, except for spaces listed in Item 1. These automatic control devices shall be installed to automatically turn off lights within 30 minutes of all occupants

leaving the space, and shall either be manual-on or shall be controlled to automatically turn the lighting on to not more than 50 percent power.

Exception: Full automatic-on controls shall be permitted to control lighting in public corridors, stairways, restrooms, primary building entrance areas and lobbies, and areas where manual-on operation would endanger the safety or security of the room or building occupants.

C405.7.1 Electrical sub-metering (mandatory).

Add a new section C405.7.1 to read as follows:

C405.7.1 Measurement of electrical consumption of tenant spaces in covered buildings constructed on and after January 1, 2016. The terms meter, submeter, covered building, tenant space and covered tenant space shall be as defined in Section 28-311.2 of the Administrative Code of the city of New York. Each covered tenant space in a building where plans were filed with the department on and after January 1, 2016 shall be equipped with a separate meter or sub-meter to measure the electrical consumption of such space when let or sublet. Where the covered tenant space is a floor with multiple tenancies, each tenancy that is 10,000 gross square feet (929 m²) in area or less shall (i) be equipped with a separate meter or sub-meter, (ii) share a meter or sub-meter with other tenant spaces on the floor, or (iii) share a meter or sub-meter covering the entire floor. As new covered tenant spaces are created, they shall be equipped with meters or sub-meters as provided in this section.

Exception: Covered tenant space for which the electrical consumption within such space is measured by a meter dedicated exclusively to that space.

SECTION C407

TOTAL BUILDING PERFORMANCE

Delete Section C407 in its entirety and replace with a new section C407 to read as follows:

SECTION C407

TOTAL BUILDING PERFORMANCE

C407.1 Scope. This section establishes criteria for compliance using total building performance. Buildings following the total building performance path must comply with ASHRAE 90.1-2010 as amended by Appendix A of this code, demonstrating compliance under Section 11 or Appendix G of such standard.

SECTION C408

SYSTEM COMMISSIONING

Section C408.1 General.

Delete Section C408.1 in its entirety and replace with a new Section C408.1 to read as follows:

C408.1 General. This section covers the commissioning of building mechanical systems in Section C403, service water heating systems in Section C404, and electrical power and lighting systems in Section C405.

C408.2 Mechanical systems commissioning and completion requirements.

Delete Section C408.2 in its entirety and replace with a new Section C408.2 with a new title, to read as follows:

C408.2 Mechanical, renewable energy, and service water heating systems commissioning and completion requirements. Prior to passing the final mechanical inspection, the registered design professional shall provide evidence of mechanical systems commissioning and completion in accordance the provisions of this section.

Construction document notes shall clearly indicate provisions for commissioning and completion requirements in accordance with this section and are permitted to refer to specifications for further requirements. Copies of all documentation shall be given to the owner and shall be made available to the code official upon request in accordance with Sections C408.2.4 and C408.2.5.

Mechanical systems, renewable energy, and service water heating systems shall include but are not limited to, at a minimum, the following heating, ventilating, air conditioning, service water heating, indoor air quality and refrigeration systems (mechanical and/or passive) and associated controls:

1. Heating, cooling, air handling and distribution, ventilation, and exhaust systems, and their related air quality monitoring systems.
2. Air, water, and other energy recovery systems.
3. Manual or automatic controls, whether local or remote, on energy using systems including but not limited to temperature controls, setback sequences, and occupancy based control, including energy management functions of the building management system.
4. Plumbing, including insulation of piping and associated valves, domestic and process water pumping, and mixing systems.
5. Mechanical heating systems and service water heating systems.
6. Refrigeration systems.
7. Renewable energy and energy storage systems.
8. Other systems, equipment and components that are used for heating, cooling or ventilation and that affect energy use.

Exception: Mechanical, renewable energy, and service hot water systems in buildings where the total mechanical equipment capacity being installed is less than 480,000 Btu/h (140 690 W) cooling capacity and 600,000 Btu/h (175 860 W) heating capacity are exempt from the commissioning requirements.

C408.2.1 Commissioning plan.

Delete Item 2 and replace with a new Item 2 to read as follows:

2. A listing of the specific equipment, appliances or systems to be tested, their full sequences of operation, and a description of the tests to be performed, including prerequisite activities and reference to specific checklists or worksheets which are necessary or required by the department.

C408.2.2 Systems adjusting and balancing.

Delete the first sentence and replace with a new sentence to read as follows:

HVAC systems shall be balanced in accordance with ASHRAE 111, “Testing, Adjusting, and Balancing of Building HVAC Systems” or other accepted engineering standards as approved by the department.

C408.2.5.4 Final commissioning report.

Delete the language in the first sentence before the colon and replace with new language to read as follows:

Within 30 months for buildings 500,000 gross square feet (46 452 m²) or greater, excluding R-2 occupancies, or within 18 months for R-2 occupancies and all other buildings, of the issuance of the certificate of occupancy or letter of completion, a registered design professional or approved agency shall prepare a report of test procedures and results, including test procedures and results performed after occupancy, identified as the "Final Commissioning Report", provide such report to the building owner, and submit a certification to the department with applicable fees in accordance with department rules. The owner of a building 500,000 gross square feet (46 452 m²) or greater may apply for an extension of time to the code official based on good cause, in accordance with department rules. Such report shall include:

CHAPTER C5
REFERENCED STANDARDS

Delete the last sentence of the first paragraph and replace with a new sentence to read as follows:

The application of the referenced standards shall be as specified in Section 105.

Delete the referenced standard titled “AAMA” in its entirety and replace with a new referenced standard titled “AAMA,” to read as follows:

1827 Walden Office Square
 Suite 550
 Schaumburg, IL 60173-4268

<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
<u>AAMA/WDMA/CSA 101/I.S.2/A A440—11</u>	<u>North American Fenestration Standard/ Specifications for Windows, Doors and Unit Skylights</u>	<u>Table C402.4.3</u>

Delete the referenced standard titled “ASHRAE” in its entirety and replace with a new referenced standard titled “ASHRAE,” to read as follows:

American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.
1791 Tullie Circle, NE
Atlanta, GA 30329-2305

<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
<u>ASHRAE</u>		
<u>ANSI/ASHRAE/ACCA Standard 183—2007</u>	<u>Peak Cooling and Heating Load Calculations in Buildings, Except Low-rise Residential Buildings</u>	<u>C403.2.1</u>
<u>ASHRAE—2004</u>	<u>ASHRAE HVAC Systems and Equipment Handbook—2004</u>	<u>C403.2.1</u>
<u>111—08</u>	<u>Measurement, Testing, Adjusting, and Balancing of Building Heating, Ventilation and Air-Conditioning Systems</u>	<u>C408.2.2</u>
<u>ISO/AHRI/ASHRAE 13256-1 (2005)</u>	<u>Water-source Heat Pumps—Testing and Rating for Performance— Part 1: Water-to-air and Brine-to-air Heat Pumps</u>	<u>Table C403.2.3(2)</u>
<u>ISO/AHRI/ASHRAE 13256-2 (1998)</u>	<u>Water-source Heat Pumps—Testing and Rating for Performance— Part 2: Water-to-water and Brine-to-water Heat Pumps</u>	<u>Table C403.2.3(2)</u>
<u>90.1—2010</u>	<u>Energy Standard for Buildings Except Low-rise Residential Buildings</u>	<u>101.1.1, 101.4.3, 101.4.3.1, 101.4.3.2, 101.5.1.2, C202, C401.2, C401.2.1, C402.1.1, Table C402.1.2, Table C402.2, C403.2.3.1</u>
<u>140—2010</u>	<u>Standard Method of Test for the Evaluation of Building Energy Analysis Computer Programs</u>	<u>C407.6.1</u>
<u>146—2006</u>	<u>Testing and Rating Pool Heaters</u>	<u>Table C404.2</u>

Delete the referenced standard titled “ICC” in its entirety and replace with a new referenced standard titled “ICC,” to read as follows:



International Code Council, Inc.
500 New Jersey Avenue, NW
6th Floor
Washington, DC 20001

<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
<u>EBNYS-10</u>	<u>Existing Building Code of New York State</u>	<u>101.2.1</u>
<u>ECCCNYS-10</u>	<u>Energy Conservation Construction Code of New York State</u>	<u>101.1.1, 101.2.3, 101.5.1</u>
<u>FCNYS-10</u>	<u>Fire Code of New York State</u>	<u>101.2.1, C201.3</u>
<u>FGNYS-10</u>	<u>Fuel Gas Code of New York State</u>	<u>101.2.1, C201.3</u>
<u>IECC-12</u>	<u>International Energy Conservation Code</u>	<u>101.1.1</u>
<u>NYCAC-14</u>	<u>New York City Administrative Code</u>	<u>101.1, 101.2.1, 101.5.3.2, 101.5.3.3, 102.1, 103.1, 103.2.1, 103.3, 104.1, 104.1.1, 104.3, 105.1, C202</u>
<u>NYCBC-14</u>	<u>New York City Building Code</u>	<u>101.1, 101.2.1, 101.2.2, 102.1, 103.1, 103.2.1, 103.3, 104.2.3, C201.3, C202, C303.2, C402.2.9, C402.4.4</u>
<u>NYCEC-11</u>	<u>New York City Electrical Code</u>	<u>101.2.1, C201.3</u>
<u>NYCECC-11</u>	<u>New York City Energy Conservation Code</u>	<u>101.1, 101.4.3, 101.5, 101.5.1.1, 101.5.1.2, 105.1</u>
<u>NYCFC-14</u>	<u>New York City Fire Code</u>	<u>101.2.1, C201.3</u>
<u>NYCFG-14</u>	<u>New York City Fuel Gas Code</u>	<u>102.1, 103.1, 103.2.1, 104.2.3, C201.3</u>
<u>NYCMC-14</u>	<u>New York City Mechanical Code</u>	<u>102.1, 103.1, 103.2.1, 104.2.3, C201.3, C403.2.5, C403.2.5.1, C403.2.6, C403.2.7, C403.2.7.1, C403.2.7.1.1, C403.2.7.1.2, C403.3.3, C403.4.5, C403.4.5.5, C408.2.2.1</u>
<u>NYCPC-14</u>	<u>New York City Plumbing Code</u>	<u>102.1, 103.1, 103.2.1, 104.2.3, C201.3</u>
<u>NYSCEC-14</u>	<u>New York State Commercial Energy Code</u>	<u>101.1.1, 101.5.1.2</u>
<u>NYSEC-14</u>	<u>New York State Energy Code</u>	<u>101.1.1, 101.2.3</u>
<u>NYSREC-14</u>	<u>New York State Residential Energy Code</u>	<u>101.1.1, 101.4.3, 101.5.1.1</u>
<u>PCNYS-10</u>	<u>Plumbing Code of New York State</u>	<u>101.2.1, C201.3</u>
<u>PMNYS-10</u>	<u>Property Maintenance Code of New York State</u>	<u>101.2.1</u>
<u>RCNYS-10</u>	<u>Residential Code of New York State</u>	<u>101.2.1, C201.3, C202, C303.1.5,</u>

Delete the referenced standard titled “IESNA” in its entirety and replace with a new referenced standard titled “IESNA,” to read as follows:

IESNA		
<u>illuminating Engineering Society of North America</u> <u>120 Wall Street, 17th Floor</u> <u>New York, NY 10005-4001</u>		
<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
<u>ANSI/ASHRAE/IESNA 90.1—2010</u>	<u>Energy Standard for Buildings, Except Low-rise Residential Buildings</u>	<u>101.1.1, 101.4.3, 101.4.3.1, 101.4.3.2, 101.5.1.2, C202, C401.2, C401.2.1, C402.1.1, Table C402.1.2, Table C402.2, C403.2.3.1</u>

Delete the referenced standard titled “NFRC” in its entirety and replace with a new referenced standard titled “NFRC,” to read as follows:

NFRC		
<u>National Fenestration Rating Council, Inc.</u> <u>6305 Ivy Lane, Suite 140</u> <u>Greenbelt, MD 20770</u>		
<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
<u>100—2010</u>	<u>Procedure for Determining Fenestration Products U-factors—Second Edition</u>	<u>C303.1.3, C402.2.1</u>
<u>200—2010</u>	<u>Procedure for Determining Fenestration Product Solar Heat Gain Coefficients and Visible Transmittance at Normal Incidence—Second Edition</u>	<u>C303.1.3, C402.3.1.1</u>
<u>400—2010</u>	<u>Procedure for Determining Fenestration Product Air Leakage—Second Edition</u>	<u>Table C402.4.3</u>

Delete the referenced standard titled “UL” in its entirety and replace with a new referenced standard titled “UL,” to read as follows:

UL		
<u>Underwriters Laboratories</u> <u>333 Pfingsten Road</u> <u>Northbrook, IL 60062-2096</u>		
<u>Standard reference number</u>	<u>Title</u>	<u>Referenced in code section number</u>
<u>727—06</u>	<u>Oil-fired Central Furnaces—with Revisions through April 2010</u>	<u>Table C403.2.3(4), Table C406.2(4)</u>
<u>731—95</u>	<u>Oil-fired Unit Heaters—with Revisions through April 2010</u>	<u>Table C403.2.3(4), Table C406.2(4)</u>

§28-1001.2.3 New York city amendments to the 2010 edition of Energy Standard for Buildings Except Low-Rise Residential Buildings (“ASHRAE 90.1-2010”), as amended by Chapter 3 of the 2014 Supplement. The New York city amendments to ASHRAE 90.1-2010 are as follows:

For the purpose of applying ASHRAE 90.1-2010 in the NYCECC, modifications to ASHRAE 90.1-2010 pursuant to Chapter 3 of the 2014 supplement and New York City amendments of such standard pursuant to this section are deemed to be incorporated in a new Appendix A to be inserted after chapter C5 of the NYCECC and to read as follows:

APPENDIX A

MODIFIED ENERGY STANDARD FOR BUILDINGS, EXCEPT FOR LOW-RISE RESIDENTIAL BUILDINGS

SECTION ECC A101 **SCOPE**

A101.1 Scope. This appendix provides the modifications to the nationally recognized standard ASHRAE 90.1-2010 , governing commercial energy efficiency. Where a referenced publication has been modified for the City of New York as by the New York City Construction Codes and the New York City Energy Conservation Code, every reference to such publication shall be deemed to include all such modifications.

SECTION ECC A102 **ENERGY STANDARD FOR COMMERCIAL BUILDINGS**

A102.1 General. The standards for energy efficiency in commercial buildings, as defined in Section C202 of this code, shall be in accordance with Chapter C4 of this code or in accordance with ASHRAE 90.1-2010 as amended by chapter 3 of the 2014 Supplement and Section 28-1001.2.3 of the Administrative Code. Refer to the rules of the department for any subsequent additions, modifications or deletions that may have been made to this standard in accordance with Section 28-103.19 of the Administrative Code.

A102.2 New York City amendments. The following New York City amendments to ASHRAE 90.1-2010, as amended by chapter 3 of the 2014 Supplement, are hereby adopted as set forth in this section.

Chapter 6 – Heating, Ventilation, and Air-Conditioning

6.4.1.1 Delete subcategories a, b, d, e, and f and replace with new subcategories a, b, d, e, and f to read as follows:

- a. For Table 6.8.1.A, follow Table C403.2.3(1) of the New York City Energy Conservation Code - Minimum Efficiency Requirements: Electrically Operated Unitary Air Conditioners and Condensing Units.
- b. For Table 6.8.1.B, follow Table C403.2.3(2) of the New York City Energy Conservation Code - Minimum Efficiency Requirements: Electrically Operated Unitary and Applied Heat Pumps.
- d. For Table 6.8.1.D, follow Table C403.2.3(3) of the New York City Energy Conservation Code - Minimum Efficiency Requirements: Electrically Operated Packaged Terminal Air Conditioners, Packaged Terminal Heat Pumps, Single-Package Vertical Air Conditioners, Single Vertical Heat Pumps, Room Air Conditioners and Room Air-Conditioner Heat Pumps.
- e. For Table 6.8.1.E, follow Table C403.2.3(4) of the New York City Energy Conservation Code – Warm Air Furnaces and Combination Warm Air Funaces/Air-Conditioning Units, Warm Air Duct Furnaces and Unit Heaters, Minimum Efficiency Requirements.
- f. For Table 6.8.1.F, follow Table C403.2.3(5) of the New York City Energy Conservation Code – Minimum Efficiency Requirements: Gas- and Oil-Fired Boilers.

6.7.2.4 Delete Section 6.7.2.4 in its entirety and replace with a new Section 6.7.2.4 to read as follows:

6.7.2.4. Projects complying with this standard shall also comply with Section C408 of the New York City Energy Conservation Code in regards to system commissioning. When demonstrating compliance with Section C408.3.1, projects following ASHRAE 90.1-2010 must demonstrate compliance with Chapter 9 of ASHRAE 90.1-2010 as required, in lieu of Section C405 of the New York City Energy Conservation Code.

Table 6.8.1A Delete rows 2-4 of Table 6.8.1A.

Table 6.8.1B Delete rows 1-4 and 25-28 of Table 6.8.1B.

Table 6.8.1D Delete rows 10-16 of Table 6.8.1D.

Table 6.8.1E Delete Table 6.8.1E in its entirety.

Table 6.8.1F Delete Table 6.8.1F in its entirety.

Chapter 8 - Power

8.5 Delete Section 8.5 in its entirety and replace with a new Section 8.5 to read as follows:

8.5 Mandatory Provisions.

8.5.1 Measurement of electrical consumption of tenant spaces in covered buildings constructed on and after January 1, 2016. The terms meter, submeter, covered building, tenant space and covered tenant space shall be as defined in Section 28-311.2 of the Administrative Code of the city of New York. Each covered tenant space in a building where plans were filed with the department on and after January 1, 2016 shall be equipped with a separate meter or sub-meter to measure the electrical consumption of such space when let or sublet. Where the covered tenant space is a floor with multiple tenancies, each tenancy that is 10,000 gross square feet (929 m²) in area or less shall (i) be equipped with a separate meter or sub-meter, (ii) share a meter or sub-meter with other tenant spaces on the floor, or (iii) share a meter or sub-meter covering the entire floor. As new covered tenant spaces are created, they shall be equipped with meters or sub-meters as provided in this section.

Exception: Covered tenant space for which the electrical consumption within such space is measured by a meter dedicated exclusively to that space.

Chapter 9 - Lighting

9.1.1 Delete Exception b and replace with a new Exception b to read as follows:

b. dwelling units within commercial buildings shall not be required to comply with this section provided that not less than 75 percent of the permanently installed fixtures, other than low-voltage lighting, shall be fitted for, and contain only, high efficacy lamps.

9.4.1 Delete Section 9.4.1 in its entirety and replace with a new Section 9.4.1 to read as follows:

9.4.1 Lighting Control. Automatic control devices shall be installed in the following spaces to automatically turn off lights within 30 minutes of all occupants leaving the space as follows:

- 1.** Occupant sensors shall be installed in all classrooms (not including shop classrooms, laboratory classrooms, and preschool classrooms), conference/meeting rooms, employee lunch and break rooms, and offices smaller than 200 square feet (18.5 m²) in area. These shall be manual-on switches. Such sensors and controls shall not have an override switch that converts from manual-on to automatic-on functionality. The occupant sensor may have a grace period of up to 30 seconds to turn on the lighting automatically after the sensor has turned off the lighting if occupancy is detected.
- 2.** Occupant sensors shall be installed in restrooms, storage rooms, private offices 200 square feet (18.5 m²) in area or greater, janitorial closets, and other spaces 300 square feet (28 m²) in area or less enclosed by floor-to-ceiling height partitions, except for spaces listed in Item 1. These automatic control devices shall be installed to automatically turn off lights within 30 minutes of all occupants leaving the space, and shall either be manual

on or shall be controlled to automatically turn the lighting on to not more than 50 percent power.

Exception: Full automatic-on controls shall be permitted to control lighting in public corridors, stairways, restrooms, primary building entrance areas and lobbies, and areas where manual-on operation would endanger the safety or security of the room or building occupants.

§5. This local law shall take effect on the same date that the State Energy Conservation Construction Code (the “New York State Energy Code”) as set forth in 19 NYCRR Part 1240 takes effect.