

# CE1-19 Part I

**PART I** — IECC: Part I: SECTION C101.2, C101.3, C101.4.1, C101.5, C202, C202, (New), C401.1, C401.2, C401.2.1(New),

IECC: Part II R101.2, R101.3(N1101.2) , R101.4.1, R101.5, R202 (N1101.6), R202 (N1101.6) (New), R401, R401.2.1(N1101.13.1)(New), R401.2.2(N1101.13.2)(New), R401.3(N1101.14)

**PART II** — IECC: R101.2, R101.3 (IRC N1101.2), R101.4.1, R101.5, R202 (IRC N1101.6), R401.1, R401.2 (IRC N1101.13), R401.2.1 (IRC 1101.13.1) (New), R401.2.1 (IRC N1101.13.1, R401.3 (IRC N1101.14)

**Proponent:** Darren Meyers, P.E., International Energy Conservation Consultants LLC, representing Self (dmeyers@ieccode.com)

**THIS IS A 2 PART CODE CHANGE. PART I WILL BE HEARD BY THE IECC- COMMERCIAL COMMITTEE. PART II WILL BE HEARD BY THE IECC-RESIDENTIAL COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THESE COMMITTEES.**

## 2018 International Energy Conservation Code

### SECTION C101 SCOPE AND GENERAL REQUIREMENTS

**C101.1 Title.** This code shall be known as the Energy Conservation Code of [NAME OF JURISDICTION], and shall be cited as such. It is referred to herein as “this code.”

#### Revise as follows:

**C101.2 Scope.** This code applies to *commercial buildings* and ~~the buildings’ sites and associated systems and equipment; structures , their associated sites , systems and equipment; and energy-using systems and equipment associated with sites considered areas of land under the control of a single owner or entity.~~

**C101.3 Intent.** This code shall regulate the design and construction of *buildings* , structures and sites for the effective use and conservation of energy over ~~the their useful life of each building.~~ This code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve this objective. This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

**C101.4.1 Mixed residential and commercial buildings, structures and sites.** Where a *building, structure or site* includes both *residential building uses* and *commercial building portions uses*, each ~~portion use group~~ shall be separately considered and meet the applicable provisions of IECC—Commercial Provisions or IECC—Residential Provisions.

**C101.5 Compliance.** *Residential buildings, structures and sites* shall meet the provisions of IECC—Residential Provisions. *Commercial buildings, structures and sites* shall meet the provisions of IECC—Commercial Provisions.

### SECTION C202 GENERAL DEFINITIONS

~~**BUILDING-SITE.**~~ A contiguous area of land that is under the ownership or control of one owner or entity.

#### Add new definition as follows:

**[A] STRUCTURE.** That which is built or constructed.

## SECTION C401 GENERAL

**Revise as follows:**

**C401.1 Scope.** The provisions in this chapter are applicable to commercial *buildings, structures* and their *building-sites*.

**C401.2 Application.** *Commercial buildings, structures, and sites* shall comply with one of the following:

1. The requirements of ANSI/ASHRAE/IESNA 90.1.
2. The requirements of Sections C402 through C405 and C408. In addition, *commercial buildings, associated structures and sites* shall comply with Section C406 and tenant spaces shall comply with Section C406.1.1.
3. The requirements of Sections C402.5, C403.2, C403.3 through C403.3.2, C403.4 through C403.4.2.3, C403.5.5, C403.7, C403.8.1 through C403.8.4, C403.10.1 through C403.10.3, C403.11, C403.12, C404, C405, C407 and C408. The *aggregate building, structure and site* energy cost shall be equal to or less than 85 percent of the standard reference design building.

**Add new text as follows:**

**C401.2.1 Application to structures and sites.** Energy-using systems and equipment serving sites or structures, with or without a contiguous building, including site lighting; motors for pumps, fountain pumps and water moving equipment; and vertical transportation equipment, elevators and escalators, shall meet the applicable provisions of this code as described in Sections C403, C404, C405, C407 and C408

Proposal # 5602

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CE1-19 Part I

# CE1-19 Part II

IECC: R101.2, R101.3 (IRC N1101.2), R101.4.1, R101.5, R202 (IRC N1101.6), R401.1, R401.2 (IRC N1101.13), R401.2.1 (IRC 1101.13.1) (New), R401.2.1 (IRC N1101.13.1, R401.3 (IRC N1101.14)

**Proponent:** Darren Meyers, P.E., International Energy Conservation Consultants LLC, representing Self (dmeyers@ieccode.com)

## 2018 International Energy Conservation Code

Revise as follows:

### SECTION R101 (IRC N1101) SCOPE AND GENERAL REQUIREMENTS

**R101.1 Title.** This code shall be known as the Energy Conservation Code of [NAME OF JURISDICTION], and shall be cited as such. It is referred to herein as “this code.”

**R101.2 Scope.** This code applies to *residential buildings* and ~~the *building sites* and associated systems and equipment.~~ *structures*, their associated *sites*, systems and equipment; and energy-using systems and equipment associated with *sites* considered areas of land under the control of a single owner or entity.

**R101.3 (IRC N1101.2) Intent.** This code shall regulate the design and construction of *buildings, structures and sites* for the effective use and conservation of energy over the their useful life ~~of each building.~~ This code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve this objective. This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

**R101.4.1 Mixed residential and commercial *buildings, structures and sites*.** Where a *building, structure or site* includes both *residential building uses* and *commercial building portions uses*, each ~~portion use group~~ shall be separately considered and meet the applicable provisions of the IECC—Commercial Provisions or IECC—Residential Provisions.

**R101.5 Compliance.** *Residential buildings, structures and sites* shall meet the provisions of IECC—Residential Provisions. *Commercial buildings, structures and sites* shall meet the provisions of IECC—Commercial Provisions.

### SECTION R202 (IRC N1101.6) GENERAL DEFINITIONS

**~~BUILDING SITE.~~** A ~~contiguous~~ contiguous area of land that is under the ownership or control of one owner or entity.

Add new text as follows:

**STRUCTURE.** That which is built or constructed.

Revise as follows:

### SECTION R401 GENERAL

**R401.1 Scope.** This chapter applies to *residential buildings, structures and sites.*

**R401.2 (IRC N1101.13) Compliance.** Projects Buildings , structures and sites shall comply with one of the following:

1. Sections R401 through R404.
2. Section R405 and the provisions of Sections R401 through R404 indicated as “Mandatory.”
3. The energy rating index (ERI) approach in Section R406.

**Add new text as follows:**

**R401.2.1 (IRC N1101.13.1) Application to structures and sites.** Energy-using systems and equipment servicing sites or structures , with or without a contiguous residential building , including site lighting; motors for pumps, fountain pumps and water moving equipment; and vertical transportation equipment, lifts, elevators and escalators, shall meet the applicable provisions of this code as described in Sections R403, R404, R405 and R406.

**Revise as follows:**

~~R401.2.1~~ **R401.2.2 (IRC N1101.13.2) Tropical zone.** Residential buildings, structures and sites in the tropical zone at elevations less than 2,400 feet (731.5 m) above sea level shall be deemed to be in compliance with this chapter provided that the following conditions are met:

1. Not more than one-half of the *occupied* space is air conditioned.
2. The *occupied* space is not heated.
3. Solar, wind or other renewable energy source supplies not less than 80 percent of the energy for service water heating.
4. Glazing in *conditioned* spaces has a *solar heat gain coefficient* of less than or equal to 0.40, or has an overhang with a projection factor equal to or greater than 0.30.
5. Permanently installed lighting is in accordance with Section R404.
6. The exterior roof surface complies with one of the options in Table C402.3 or the roof or ceiling has insulation with an *R-value* of R-15 or greater. Where attics are present, attics above the insulation are vented and attics below the insulation are unvented.
7. Roof surfaces have a slope of not less than one-fourth unit vertical in 12 units horizontal (21-percent slope). The finished roof does not have water accumulation areas.
8. Operable fenestration provides a ventilation area of not less than 14 percent of the floor area in each room. Alternatively, equivalent ventilation is provided by a ventilation fan.
9. Bedrooms with exterior walls facing two different directions have operable fenestration on exterior walls facing two directions.
10. Interior doors to bedrooms are capable of being secured in the open position.
11. A ceiling fan or ceiling fan rough-in is provided for bedrooms and the largest space that is not used as a bedroom.

**R401.3 (IRC N1101.14) Certificate (Mandatory).** A permanent certificate shall be completed by the builder or other *approved* party and posted on a wall in the space where the furnace is located, a utility room or an *approved* location inside the *building*, at the structure , or in a conspicuous location on site. Where located on an electrical panel, the certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. The certificate shall indicate the predominant *R-values* of insulation installed in or on ceilings, roofs, walls, foundation components such as slabs, *basement walls*, crawl space walls and floors and ducts outside *conditioned spaces*; *U-factors* of fenestration and the *solar heat gain coefficient* (SHGC) of fenestration, and the results from any required duct system and *building* envelope air leakage testing performed on the *building*. Where there is more than one value for each component, the certificate shall indicate the value covering the largest area. The certificate shall indicate the types and efficiencies of heating, cooling and service water heating equipment. Where a gas-fired unvented room heater, electric furnace or

baseboard electric heater is installed in the residence, the certificate shall indicate “gas-fired unvented room heater,” “electric furnace” or “baseboard electric heater,” as appropriate. An efficiency shall not be indicated for gas-fired unvented room heaters, electric furnaces and electric baseboard heaters.

**Reason:** There are areas outside of residential buildings where energy savings is possible by applying provisions currently in the IECC. Examples include lighting in parking lots that may or may not be directly associated with a commercial or residential building or lighting and equipment associated with a physical plant or pump, public or private parks a public or private campus or planned-unit-development. Imagine the additional and credible energy savings that could be acquired by expanding the scope and applicaiton of the residential provisions of the IECC, as such.

This proposal expands the scope and application of the residential provisions of the IECC to apply to energy-using systems in areas outside of the building structure itself. The proposal revises an existing term "BUILDING SITE" and introduces term, "STRUCTURE" utilized throughout the ICC Family of *International Codes*, to define those types of environments where the building may not enclose the extent of energy-using lighting, motor, pumping and vertical transportation systems and equipment addressed in the code as currently constituted. Also, a new provision is included in Chapter 4 [RE] "Application" to address structures and sites with or without buildings.

**Cost Impact:** The code change proposal will increase the cost of construction. While there will be a cost impact associated with this change when compared to current provisions, the change better positions the IECC to be clearer, more easily applied to structures and sites constructed without associated buildings, and more competitive than the 90.1 Standard or the Standard 90.2 alternatives on the issues.

Proposal # 5626

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CE1-19 Part II