

# Key Changes in the 2018 IECC

## Residential Code

### Window U-Factors- R402.1.2

Window U-factors will see a modest improvement in the 2018 IECC. Below is a comparison table between the 2015 and 2018 IECC by climate zone.

Climate Zone	2015 U-Factor	2018 U-Factor
4	.32	.32
5 - 8	.32	.30

### Lighting Equipment- R404.1

A proposal to increase the percentage of high efficacy lamps in permanently installed fixtures from 75% to 90% passed. This will remain a mandatory requirement in the code.

### Air Barrier & Insulation- R402.4.1.1

Added language to the air barrier and insulation installation table will specify the following:

- Supply and return register boots must be sealed to the subfloor or drywall
- Recessed lighting must be sealed to the finished surface
- Space behind electrical/phone boxes need to be insulated

### ERV/HRV Fan Efficiency- R403.6.1

A minimum fan efficiency of 1.2 cfm/watt has been added for HRV and ERVs.

### ICC 400 Log Home Standard- R402.1

ICC 400-2012 can be used as energy code compliance for log homes in the 2018 IECC. This standard describes an alternative method for log home compliance with the building thermal requirements in the IECC.

### Energy Rating Index- R406

ERI scores will be increased to the levels in the table below. Where on-site renewable energy is included in the ERI calculation, buildings must meet or exceed the thermal envelope requirements in Table R402.1.2 of the 2015 IECC. The 2009 IECC envelope backstop will remain in effect for buildings without on-site generation.

Climate Zone	2015 ERI Score	2018 ERI Score
4	54	62
5	55	61
6	54	61
7	53	58
8	53	58

### Heated Slab Insulation- R402.1.2

R-5 insulation has been added as a requirement in Table R402.1.2 for heated slabs in all climate zones.

### Buried Ductwork in Attic- R403.3.6

Ducts that are tested to have a maximum leakage rate of 1.5 cfm25/100 sq. ft. to the outside, are insulated with  $\geq$  R-8 insulation, and have at least R-19 insulation above and to the sides of the ducts, count as being in conditioned space.

### RESNET Standards Referenced

The ANSI/RESNET/ICC 301-2014 is now a referenced standard in the code as the basis for the ERI calculation. Additionally, ANSI/RESNET/ICC 380-2016 is now a referenced standard for building envelope testing.

# Key Changes in the 2018 IECC Commercial and Administrative Codes

## Commercial

### Renewable Energy Cost Reduction—C407.3

A maximum on-site renewable energy cost reduction of 5% is now a component of C407.3 the Performance-based compliance approach. In addition to limiting the amount of renewable energy offset, this proposal also requires documentation which demonstrates the reduction in energy use associated with on-site renewable energy.

### Shower head Flow Rate—C404.9

A new mandatory code requirement was added to the 2018 IECC. For the first time ever the flow rate of shower heads shall not exceed 2.0 gpm at 80 psi in all buildings.

### Heated Slab Insulation-C402.1.3

R-5 insulation has been added as a requirement in Table C402.1.3 for heated slabs in all climate zones.

### Garage Door Glazing- C402.1.4

A U-factor of .31 has been added to table C402.1.4 as a minimum requirement for garage doors with glazing <14%.

### Airspace Thermal Properties- C402.2.7

When the thermal properties of airspaces are calculated as part of the thermal wall assembly, these airspaces must be enclosed in an unvented cavity designed to minimize airflow into and out of the cavity.

## Editorial Revisions

- Adds clarifying language to the air barrier definition
- Adds clarifying language to the air barrier construction section
- Adds definition for cavity insulation
- Revises definitions for skylights and vertical fenestration
- Creates two new sections for below-grade wall insulation and opaque doors
- Reorganizes daylight zone requirements and clarifies requirements for top lit zones
- Clarifies language in section C402.5.3 Rooms Containing Fuel Burning Appliances

## Administrative

### Definition of Approved

The definition of “approved” has been changed from “Approval by the code official as a result of investigation and tests conducted by him or her, or by reason of accepted principles or tests by nationally recognized organizations” to “acceptable to the code official.”

## Editorial Revisions

- Includes minor revisions to the definition of “approved agency”
- Adds definition of “change of occupancy” to match other I-Codes