



# Significant Commercial and Residential Provision Changes Between the 6<sup>th</sup> Edition (2017) and 7<sup>th</sup> Edition (2020) Florida Building Code, Energy Conservation Volumes

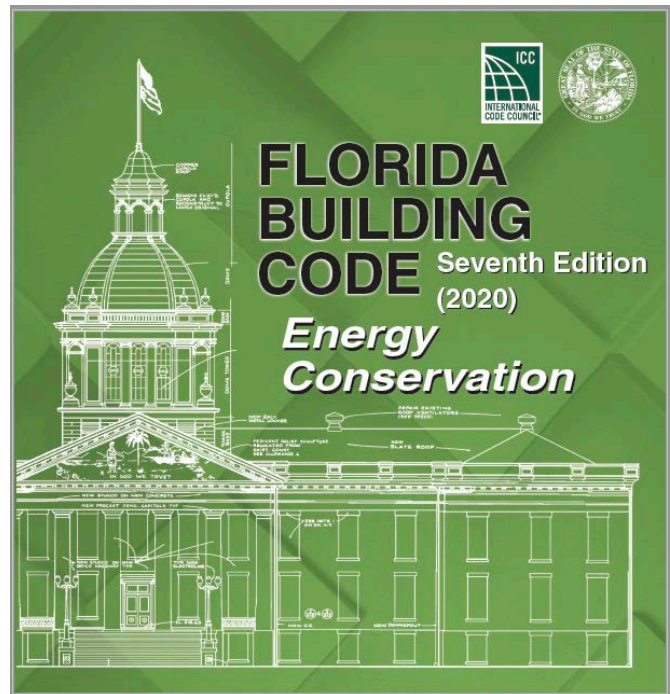
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This brochure provides an overview of the most impactful commercial and residential provision changes between the 6<sup>th</sup> Edition (2017) and 7<sup>th</sup> Edition (2020) Florida Building Code, Energy Conservation (FBCEC) volumes.

The following page is a quick reference, bulleted list that highlights the most impactful commercial and residential FBCEC changes. The remaining pages provide chapter-by-chapter discussions of impactful changes to the code, again separated into commercial and residential sections.

Commercial provision changes between the 6<sup>th</sup> (2017) and 7<sup>th</sup> (2020) editions include a number of new definitions, removal of automatic receptacle control requirement for ASHRAE 90.1 compliance, a new Group R-1 building card key control requirement, updated equipment minimum efficiency tables, and extensive revision and reorganization of indoor and exterior lighting devices and controls sections. Commercial refrigeration equipment provisions are also revised, and include new maximum energy consumption tables for certain walk-in cooler and freezer classes.

Residential provision changes between the 6<sup>th</sup> (2017) and 7<sup>th</sup> (2020) editions include a prescriptive compliance electric resistance heating prohibition for Climate Zone 2, increased lighting efficacy requirements, new dehumidifier provisions, and several changes to performance compliance calculation specifications. Residential reporting changes include new building and duct air leakage test reports and an extensive revision of the prescriptive compliance Form R402 report.



The 7<sup>th</sup> Edition (2020) FBCEC is comprised of the 6<sup>th</sup> Edition (2017) FBCEC “base code” plus Florida Building Commission-approved modifications coming from both the 2018 International Energy Conservation Code (IECC) and other proposals made during the 2020 code change cycle.

*DISCLAIMER—This document is intended to give the reader only general factual information current at the time of publication. This document is not a substitute for professional advice and should not be used for guidance or decisions related to a specific design or construction project. This document is not intended to reflect the opinion of any of the entities, agencies or organizations identified in the materials and if any opinions appear, they are those of the individual author and should not be relied upon in any event. This document is applicable to the 7<sup>th</sup> Edition (2020) Florida Building Code, Energy Conservation.*

## Commercial Energy Conservation Code Change Highlights



- Several new definitions added
- Revised ANSI/ASHRAE 90.1 Standard 2016 code application, exempting Automatic Receptacle Control and Electrical Energy Monitoring requirements
- Group R-1 buildings (Boarding houses, hotels or motels) containing over 50 guest rooms required to provide control technology for each guest room to automatically setup thermostat and turn off ventilation fan when not occupied
- Revised, re-organized and updated minimum efficiency performance requirements of commercial refrigerators, freezers, refrigerator-freezers, walk-in coolers, walk-in freezers and refrigeration equipment
- Increased minimum efficiencies in six HVAC equipment tables and added new “CEER” rating for room ACs and HPs
- Revised service water heater equipment performance efficiency, including adding a new draw pattern category and increased minimum efficiency requirements for most water heater types and introduced new “UEF” efficiency rating metric
- Extensively revised and re-organized lighting devices and lighting controls sections for interior lighting. Reduced maximum interior Lighting Power Density (LPD) allowance for many building types; added new occupant sensor controls function requirement for open office areas
- Exterior lighting controls required to have daylight shutoff, decorative lighting shutoff, lighting setback, and exterior time-switch; exterior lighting power base and surface allowances are reduced significantly
- Certain electric motor types excluded from code provisions and increased minimum efficiency of other electric motors
- New provisions and clarifications for construction documents

## Residential Energy Conservation Code Change Highlights



- A new electric resistance space heating prohibition for prescriptive projects in Climate Zone 2
- Updated residential minimum equipment efficiencies (provided in Commercial Provision Chapter 4 equipment efficiency tables)
- A new whole-house mechanical ventilation minimum fan efficacy stipulation for HRVs and ERVs
- Modified mechanical ventilation vent fan energy use standard reference design specification for performance compliance
- Increased lighting efficacy requirement
- Blower door testing requirement clarification for performance (section R405) projects with proposed air leakage values less than 7 ACH50
- Performance compliance duct testing exception change that clarifies that ducts must be tested if an air leakage of less than the (default)  $Q_{n,out}$  of 0.080 is proposed
- New dehumidifier provisions and dehumidifier performance compliance specifications (only applicable if the proposed project has a dehumidifier)
- Revised service water heating performance compliance specifications, now based on ANSI/RESNET/ICC 301
- New building and duct air leakage compliance forms and extensively reformatted prescriptive compliance (R402) form

## Commercial Energy Conservation Code Change



This overview of commercial provision changes in the 7<sup>th</sup> Edition (2020) Florida Building Code, Energy Conservation (FBCEC) focuses on code sections with significant changes and highlights changes with energy impacts.

### Chapter 1 [CE] Scope and Administration

There are no changes to the commercial Chapter 1 Scope and Administration chapter between the 6<sup>th</sup> Edition (2017) and 7<sup>th</sup> Edition (2020) FBCEC.

### Chapter 2 [CE] Definitions

New commercial definitions added to the 7<sup>th</sup> Edition (2020) FBCEC include “Access (To)”, “Captive Key Override”, “Cavity Insulation”, “Fan, Embedded”, “Fan Array”, “Fan Energy Index (FEI)”, “Fan Nameplate Electrical Input Power”, “Fan System Electrical Input Power”, “IEC Design H Motor”, “IEC Design N Motor”, “Isolation Devices”, “Luminaire-Level Lighting Controls”, “NEMA Design A Motor”, “NEMA Design B Motor”, “NEMA Design C Motor”, “Networked Guestroom Control System”, “Ready Access (To)”, and “Visible Transmittance (Annual) [VTannual].”

Modified definitions include “Computer Room”, “Entrance Door”, “Fan System Design Conditions”, “Fenestration”, “Nameplate Horsepower”, and “Roof Assembly.”

Deleted definitions include “Fan efficiency grade (FRG)”, “General Purpose Electric Motor (subtype I)”, “General Purpose Electric Motor (subtype II)”, “Low-voltage Lighting”, “Readily Accessible”, and “Screw Lamp Holders.”

### Chapter 3 [CE] General Requirements

Changes to general commercial requirements in the 7<sup>th</sup> Edition (2020) FBCEC included clarification of the fenestration products *U-factor* ratings provisions in section C303.1.3, modified table captions for Table C303.1.3(2) and Table C303.1.3(3), and updating section C304.2.1 *Single materials* by replacing building material R-values and thermal conductivities determination testing standard ASTM 236 with ASTM 1363.



*Automatic receptacle control is no longer required under the ASHRAE 90.1 method of compliance for commercial buildings.*

### Chapter 4 [CE] Commercial Energy Efficiency

The Commercial Energy Efficiency chapter saw extensive changes between the 6<sup>th</sup> Edition (2017) and 7<sup>th</sup> Edition (2020) FBCECs, including a number of clarifications, the re-organization of several sections, and several new and modified system requirement revisions.

#### C401.2 Application

This section is revised to **exclude** Sections 8.4.2 *Automatic Receptacle Control* and 8.4.3 *Electrical Energy Monitoring* in addition to Section 9.4.1.1(g) *Interior Lighting Controls* of the ANSI/ASHRAE/IESNA 90.1 standard for the commercial building compliance code. It is also revised to comply with the updated Section C408 *Maintenance Information and System Commissioning*.



*Group R-1 buildings (boarding houses, hotels or motels) containing over 50 guest rooms, must have each guest room able to have temperature and ventilation controlled with card keys. See sections C403.2.4.8 – C403.3.4.8.2.*

**C403.2.4.8 Automatic control of HVAC systems serving guest rooms**

New section C403.2.4.8 *Automatic control of HVAC systems serving guest rooms* is added. For Group R-1 buildings (*boarding houses, hotels or motels*) containing over 50 guest rooms, each guest room must be provided with *Card key controls* that comply with the two new sub-sections C403.2.4.8.1 *Temperature setpoint controls* and C403.2.4.8.2 *Ventilation controls*.

**C403.2.14 Refrigeration equipment performance**

This revised section requires commercial refrigerators, freezers, refrigerator-freezers, walk-in coolers, walk-in freezers and refrigeration equipment performance to be determined in accordance with new sections C403.2.14.1 and C403.2.14.2. Table C403.2.14.2(1) for Walk-in Cooler and Freezer Display Door minimum efficiency requirements is updated, and new Table C403.2.14.2(2) is added for Walk-in Cooler and Freezer Non-Display Door minimum efficiency requirements. Another new Table, C403.2.14.2(3) for Walk-in Cooler and Freezer Refrigeration System minimum efficiency requirements is also added.

**C403.2.3 HVAC equipment performance requirements**

This section is revised and minimum efficiencies of HVAC equipment are updated in Tables C403.2.3(1), C403.2.3(2), C403.2.3(3), C403.2.3(5), C403.2.3(9), and C403.2.3(11). New “CEER” rating is added for room ACs and HPs.

**C404.2 Service water-heating equipment performance efficiency**

This section is revised, and Table C404.2 *Minimum Performance of Water-Heating Equipment*, is reorganized and updated with new minimum efficiency requirements. Water-heating equipment *Energy Factor (EF)* is now replaced with newly introduced *Uniform Energy Factor (UEF)* performance ratings metric together with a related new *draw pattern* category.

**C405 Electrical Power and Lighting Systems**

Lighting devices and lighting controls sections for interior and exterior lighting are extensively revised and re-organized. The maximum interior *Lighting Power Density (LPD)* allowance for the *Building Area Method* in Table C405.3.2(1) and for the *Space-by-space* methods in Table C405.3.2(2) are reduced for most categories. The exterior lighting power base and surface allowances in Table C405.4.2(2) and Table C405.4.2(3) are reduced significantly for all lighting zones.

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

EQUIPMENT TYPE	SIZE CATEGORY	HEATING SECTION TYPE	SUBCATEGORY OR RATING CONDITION	MINIMUM EFFICIENCY	TEST PROCEDURE*
Air conditioners, air cooled	< 65,000 Btu/h <sup>b</sup>	All	Split System	14.0 SEER	AHRI 210/240
			Single Package	14.0 SEER <sup>c</sup>	
Through-the-wall (air cooled)	≤ 30,000 Btu/h <sup>b</sup>	All	Split system	12.0 SEER	
			Single Package	12.0 SEER	
Small-duct high-velocity (air cooled)	< 65,000 Btu/h <sup>b</sup>	All	Split System	12.0 SEER	
Air conditioners, air cooled	≥ 65,000 Btu/h and < 135,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.2 EER 12.9 IEER	
		All other	Split System and Single Package	11.0 EER 12.7 IEER	
	≥ 135,000 Btu/h and < 240,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	11.0 EER 12.4 IEER	
		All other	Split System and Single Package	10.8 EER 12.2 IEER	
	≥ 240,000 Btu/h and < 760,000 Btu/h	Electric Resistance (or None)	Split System and Single Package	10.0 EER 11.6 IEER	
		All other	Split System and Single Package	9.8 EER 11.4 IEER	

*Partial 7th Edition (2020) FBCEC Table C403.2.3(1) with updated minimum equipment efficiencies shown in red.*

### C405.1 General (Mandatory)

Lighting system controls and maximum lighting power allowance requirements in section C405.1 *General* are revised and applicable lighting code is clarified, including: dwelling units within multifamily buildings must comply with section R404.1; all other dwelling units must comply with Section R404.1, or with Sections C405.2.4 and C405.3; sleeping units must comply with section C405.2.4, and with section R404.1 or C405.3; and lighting installed in walk-in coolers, walk-in freezers, refrigerated warehouse coolers and refrigerated warehouse freezers must comply with the lighting requirements of section C403.2.14.

### C405.2 Lighting controls (Mandatory)

Section C405.2 *Lighting controls* is revised and re-organized for clarity. Revised lighting control requirements can be met either via Sections C405.2.1 through C405.2.6, or luminaire level lighting controls (LLLC) and lighting controls in Sections C405.2.1, C405.2.4 and C405.2.5 by independently monitoring occupant activity, monitoring electric lighting and daylighting levels using sensors, setpoints, timers, and dimmers.

#### C405.2.1 Occupant sensor controls

This section updates and adds new space types that require occupant sensor controls.

##### C405.2.1.1 Occupant sensor control function



*Daylight-response controls are re-organized and extensively edited for clarity and consistency.*

This section clarifies that occupant sensor controls in warehouses must comply with section C405.2.1.2 and occupant sensor controls in open plan office areas must comply with new section C405.2.1.3. All other space types with occupant

sensor controls requirement were revised to automatically turn off lights within 20 minutes after all occupants have left the space.

##### C405.2.1.3 Occupant sensor control function in open plan office areas

This new section requires occupant sensor control function in open plan office space type.

##### C405.2.3 Daylight-responsive controls

Daylight-response controls are re-organized and extensively edited for clarity and consistency. *Sidelight Daylight Zones* is replaced with *Sidelit Zones*, and *Toplight Daylight Zones* is replaced with *Toplit Zones*. *Dwelling and sleeping unit's* exemption from daylight-responsive controls requirement is removed. New buildings where the total connected lighting power calculated in accordance with Section C405.3.1 is less than or equal to the adjusted interior lighting power allowance calculated using Equation 4-8 are exempt from the daylight-responsive controls requirement.

##### C405.2.4 Specific application controls

Revised specific application lighting controls section C405.2.4 requirement. Besides occupant sensor based lighting control complying with section C405.2.1.1 or a time-switch control complying with section C405.2.2.1, a manual control separate from general lighting control is required for display and accent lighting, display cases lighting, task lighting, permanently installed under-shelf or under-cabinet lighting, and lighting equipment used for sale or education demonstration.

##### C405.2.6 Exterior lighting controls

This section is reorganized for clarification and lighting systems controls are revised to comply with new sub-sections C405.2.6.1 *Daylight shutoff*, C405.2.6.2 *Decorative lighting shutoff*, C405.2.6.3 *Lighting setback*, and C405.2.6.4 *Exterior time-switch control function*.

##### C405.3.1 Total connected interior lighting power

Equation 4-9 used to calculate total connected interior lighting power (TCLP) is updated, and clarification is added to task and display lighting exemption and excluded television broadcast lighting power for playing areas in sports arenas from TCLP calculation.

### C405.3.2 Interior lighting power allowance

The total interior lighting power allowance (watts) is determined according to updated Table C405.3.2(1) using the *Building Area Method*, or updated Table C405.3.2(2) using the *Space-by-Space Method*. The interior Lighting Power Density (LPD) values in Table C405.3.2(1) and Table C405.3.2(2) are both reduced. Section C405.3.2.2.1 *Additional interior lighting power* is revised to use an updated additional interior lighting power allowance calculation Equation 4-10 and set new maximum limits for additional LPD used for the purpose of decorative appearance.

### C405.4 Exterior lighting power requirements (Mandatory)

This revision requires that the total connected exterior lighting power be calculated in accordance with section C405.4.1 and not exceed the exterior lighting power allowance calculated in accordance with a new section C405.4.2.

#### C405.4.1 Total connected exterior building exterior lighting power



*Exterior lighting power allowances are reduced for most applications.*

This section is revised to provide definition that the total exterior connected lighting power must be the total maximum rated wattage of all lighting that is powered through the energy service for the building. Five new exterior lighting application exemptions are added.

### C405.4.2 Exterior lighting power allowance

Changes require that the exterior lighting power be determined in accordance with exterior lighting zones definition in Table C405.4.2(1) and the lighting power allowances be as specified in updated Table C405.4.2(2). The latter table contains base site allowance and all other allowances except the formerly known as non-tradable surfaces only. Lighting power allowances for most applications are reduced for all lighting zones.

#### C405.4.2.1 Additional exterior lighting power

This new sub-section states that any increase in the exterior lighting power allowance is limited to specific lighting applications indicated in the new Table C405.4.2(3). Allowances in this table are reduced significantly for all categories except *Building facades*.

#### C405.5.1 Applicability

A new exception is added that excludes compliance requirement with ANSI/ASHRAE 90.1 Standard sections 8.4.2 *Automatic Receptacle Control* and 8.4.3 *Electrical Energy Monitoring*. This exception parallels the ASHRAE 90.1 controls exclusion in section C401.2 (discussed above).

#### C408.3.2 Documentation requirements

Revisions clarify that the construction documents must be provided to the building owner or owner's authorized agent. New provisions are also added that require the construction document include three new sub-sections: C408.3.2.1 *Drawings*, C408.3.2.2 *Manuals* and C408.3.2.3 *Reports*.

#### C405.7 Electrical motors (Mandatory)

A new exemption is added for certain electric motor application types from the minimum efficiency requirements, and minimum efficiency requirements are increased for electric motors in Tables C405.7(1) and C405.7(2) due to new U.S. federal minimum motor efficiency upgrade.

## Chapter 5 [CE] Existing Buildings

The only changes to the commercial Chapter 5 Existing Buildings chapter between the 6<sup>th</sup> Edition (2017) and 7<sup>th</sup> Edition (2020) FBCEC are two new exceptions added in sections C503.2 and C505.1, concerning when unconditioned or low-energy space is altered to conditioned space and when spaces undergo a change in occupancy.

### APPENDIX CA Forms

Commercial form changes in the 7<sup>th</sup> Edition (2020) FBCEC include editorial changes and a new Commercial Compliance Checklist is added to help clarify reporting requirements and facilitate code compliance verification.

### Appendix CB Solar-Ready Zone—Commercial

This appendix is for new construction where solar-ready provisions are required. *SOLAR-READY ZONE* is defined in sections CB102 and CB103. Sub-section CB103.1 *General* defines solar-ready zone location requirements and requires compliance with additional new provisions in sub-sections CB103.2 through CB103.8.

Florida Building Code, Seventh Edition (2020) – Energy Conservation

[Approved Software Title and Version], Effective Date: Dec 31, 2020 [Compliance Method]

### Commercial Compliance Checklist

Applications for compliance with the Florida Building Code, Energy Conservation shall include:

- This Checklist
- The full compliance report generated by the software that contains the project summary, compliance summary, certifications and detailed component compliance reports.
- The compliance report must include the full input report generated by the software as contiguous part of the compliance report.
- Boxes appropriately checked in the Mandatory Section of the compliance report.

[Approved Software Title and Version] TAM 2020-1.0 Compliant Software, Effective Date: Dec 31, 2020 Florida Building Code, Seventh Edition (2020) - [Compliance method]

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*A new Commercial Compliance Checklist is added in the 7<sup>th</sup> Edition to help clarify reporting requirements and facilitate code compliance verification.*



*A Solar-Ready Zone is defined and includes new provisions.*

## Residential Energy Conservation Code Changes



This overview of residential provision changes in the 7<sup>th</sup> Edition (2020) Florida Building Code, Energy Conservation (FBCEC) focuses on code sections with significant changes and highlights changes with energy impacts.

### Chapter 1 [RE] Scope and Administration

There are no changes to the residential Chapter 1 Scope and Administration chapter between the 6<sup>th</sup> Edition (2017) and 7<sup>th</sup> Edition (2020) FBCEC.

### Chapter 2 [RE] Definitions

New residential definitions for “cavity insulation” and “guest suite” are added to the 7<sup>th</sup> Edition (2020) FBCEC. A definition for “High-efficacy Lamps” is deleted and instead incorporated into a modified Chapter 4 *Lighting equipment* section (discussed below). Wording changes and clarifications are also made to four existing residential definitions: “Approved Agency,” “Building Thermal Envelope,” “Labeled,” and “Skylight.”

### Chapter 3 [RE] General Requirements

Changes to the residential General Requirements in the 7<sup>th</sup> Edition (2020) FBCEC include a formatting change to the fenestration product rating provisions in Section R303.1.3 and two clarifying table heading revisions.

### Chapter 4 [RE] Residential Energy Efficiency

The Residential Energy Efficiency chapter saw a number of changes between the 6<sup>th</sup> (2017) and 7<sup>th</sup> (2020) editions including a number of clarifications and several new and modified system requirements and specifications.

#### R403.3.3 Duct testing (Mandatory)

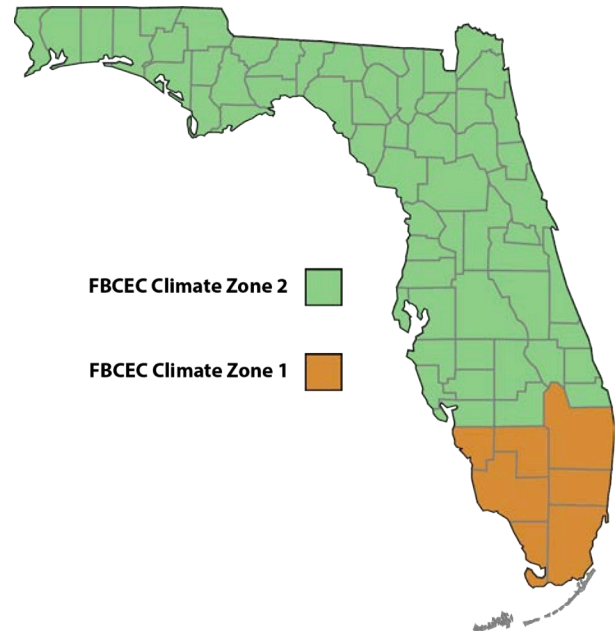
An existing 6<sup>th</sup> Edition (2017) FBCEC exception to this Systems section states that duct testing is not mandatory for buildings complying via the performance (section R405) method. This exception remains in the 7<sup>th</sup> Edition (2020) FBCEC but an added clarification states that performance path (section R405) duct leakage

testing *is* required if the compliance report shows credit has been taken for a duct leakage to outside ( $Q_{n,out}$ ) of less than 0.080.

#### Table R403.6.1 Whole-house mechanical ventilation system fan efficacy

This change adds a minimum efficacy requirement of 1.2 cfm/watt for heat and energy recovery ventilators (HRVs and ERVs) to the existing fan efficacy requirements in this table.

#### R403.7.2. Electric space heating (Prescriptive)



*The 2020 FBCEC prohibits resistance space heating from being the primary heating system used for prescriptive residential compliance in Climate Zone 2. It is still allowed under performance code compliance methods.*

This new Systems section prohibits resistance space heating from being the primary heating system used in Climate Zone 2 for residential projects complying via the prescriptive path. Resistance space heating can still be the primary heating system for Climate Zone 2 projects complying via the performance (section R405) or Energy Rating Index (section R406) path.



## Residential Lighting Efficacy

Changes to the residential lighting efficacy requirements in the 7<sup>th</sup> Edition (2020) FBCEC include 1) removing a high-efficacy lamp definition that, in part, based minimum lumens per watt specifications on lamp wattage, and 2) increasing minimum efficacy requirements:

### 6<sup>th</sup> Edition (2017) FBCEC:

**[Def.] HIGH-EFFICACY LAMPS.** Compact fluorescent lamps, T-8 or smaller diameter linear fluorescent lamps, or lamps with a minimum efficacy of:

60 lumens per watt for lamps over 40 watts;  
50 lumens per watt for lamps over 15 watts to 40 watts; and  
40 lumens per watt for lamps 15 watts or less.

### **R404.1 Lighting equipment (Mandatory).**

Not less than 75 percent of the lamps in permanently installed lighting fixtures shall be high-efficacy lamps or not less than 75 percent of the permanently installed lighting fixtures shall contain only high-efficacy lamps.

Exception: Low-voltage lighting.

### 7<sup>th</sup> Edition (2020) FBCEC:

High-efficacy-lamps definition deleted.

### **R404.1 Lighting equipment (Mandatory).**

Not less than 90 percent of the lamps in permanently installed luminaires shall have an efficacy of at least 45 lumens-per-watt or shall utilize lamps with an efficacy of not less than 65 lumens-per-watt.

### **R403.13 Dehumidifiers (Mandatory)**

For the first time in the residential Florida Energy Code, this new Systems section addresses residential dehumidifiers. In cases where a dehumidifier is installed, requirements include minimum rated efficiencies based on capacity, sensor control with sensor location where it is exposed to mixed house air, a minimum R-2 insulation level if installed in unconditioned space, and condensate disposal as specified. Corresponding performance (section R405)

design specifications are also added in new Dehumidification Systems and Dehumidistat sections in Table R405.5.2(1).

### **R403.13.1 Ducted dehumidifiers**

This new Systems sub-section addresses ducted dehumidifiers, stipulating where backdraft dampers are required and prohibiting dehumidifiers from being ducted to or from a central ducted cooling system on the return duct side (upstream from the central cooling evaporator coil). The sub-section also requires dehumidifier ductwork located in unconditioned space to be insulated to a minimum of R-6.

### **R404.1 Lighting equipment (Mandatory)**



*Now 90% of permanently installed lamps are required to be luminaires of at least 45 lumens per watt or lamps need to be at least 65 lumens per watt.*

Changes to this Electrical Power and Lighting Systems section replace “high-efficacy” term with minimum lumens per watt efficacy specifications for luminaires (45 lumens per watt) and lamps (65 lumens per watt). The required percentage of permanently installed lamps with these minimum efficacies has increased from 75% to 90%. An exception for low-voltage lighting is also removed.

## Residential Building Air Leakage Testing

With some exceptions, both the 6<sup>th</sup> Edition (2017) and 7<sup>th</sup> Edition (2020) FBCEC require residential building air leakage testing, and that the tested air leakage rate not exceed 7 ACH50 (7 air changes per hour at a test pressure of 50 pascals).

Since performance (section R405) compliance credit is provided for ACH50 values of less than 7, a new sub-section, R405.2.2, is added in the 7<sup>th</sup> Edition (2020) FBCEC that clarifies that if a building air leakage rate below 7 ACH50 is proposed, testing must verify the air leakage does not exceed the proposed rate instead of the 7 ACH50 maximum.

### R405.2.2 Building air leakage testing

This new Simulated Performance Alternative sub-section clarifies that if a building air leakage rate below (the maximum allowed rate of) 7 ACH50 is specified for the proposed design, testing must verify the air leakage rate does not exceed the air leakage rate of the proposed design instead of 7 ACH50.

### R405.2.3 Duct air leakage testing



*For performance (R405) compliance, if a duct air leakage lower than the default  $Q_{n,out}$  of 0.080 is **specified** for the proposed design, testing must verify a duct air leakage rate not exceeding the leakage rate of the proposed design.*

This new Simulated Performance Alternative sub-section clarifies that if a duct air leakage lower than the default  $Q_{n,out}$  of 0.080 is specified for the proposed design, testing must verify a duct air leakage rate not exceeding the leakage rate of the proposed design; otherwise (per Exception 2 in section R403.3.3) duct testing is not mandatory for buildings complying via the performance path.

### Table R405.5.2(1) Specifications for the Standard Reference and Proposed Designs: Mechanical Ventilation

This performance compliance path Specifications table change modifies the Mechanical ventilation Standard Reference Design annual vent fan energy use equation, including adding a table-based minimum exhaust fan efficacy component.

### Table R405.5.2(1) Specifications for the Standard Reference and Proposed Designs: Service Water Heating

This performance compliance path Specifications table change modifies the Service water heating Standard Reference Design and Proposed Design specifications, making use and energy consumption for both determined in accordance with ANSI/RESNET/ICC 301. The change to Standard 301 allows the calculation to account for 1) climate-specific effects on domestic hot water use, 2) the hot water distribution system type, and 3) the use of additional conservation measures.

### R406.4 ERI-based compliance

The standard followed for the ERI method of code compliance has been updated to ANSI/RESNET/ICC 301-2019 with Addendum A.



## Resources

7<sup>th</sup> Edition (2020) *Florida Building Code, Energy Conservation*, International Code Council, Inc.  
Accessible online at  
[https://www.floridabuilding.org/bc/bc\\_default.aspx](https://www.floridabuilding.org/bc/bc_default.aspx).

## Answers to Specific Questions

Florida Department of Business and Professional Regulation: 1-850-487-1824 and  
<https://www.floridabuilding.org>.

