

# 2017 FLORIDA ENERGY CODE

# SUMMARY OF KEY ENVELOPE CHANGES

There can be a lot of uncertainty and misinformation when new energy codes take effect. Below is a summary of the most important changes impacting the building envelope requirements of Florida's residential building energy code (FEC). The tentative date for compliance with the new code is **December 31, 2017**, pending finalization by the Florida Building Commission, expected in the summer of 2017.



## WHAT ARE THE 4 BIG CHANGES IN THE FEC?

**1 ERI Path and renewable energy are new additions.** This new compliance path represents a huge change in the Florida building energy code. Demonstrating how builders can cost effectively meet the ERI target of 58, with and without renewable energy, is critical to the impact this will have on design and specification decisions involving insulation.

**2 Insulation levels basically the same.** Prescriptive R-values unchanged, and U-values weakened slightly but not enough to change builder practice.

**3 Weakened air leakage targets.** Both the performance and prescriptive compliance paths have weakened the air tightness targets. This will likely decrease the emphasis builders place on this element of home performance.

**4 Mandatory blower door testing is required.** While the previous FEC required this, implementation was delayed until July 1, 2017. Effective from this date, blower door testing is required whether performance or prescriptive path.

### KEY CHANGES TO BUILDING ENVELOPE REQUIREMENTS OF THE 2017 FEC

CODE PATH	2017 CODE SECTION	CHANGE SUMMARY
Prescriptive	R402.1.4-Table	R-values remain the same; wood-framed wall U-factor stringency decreased from 0.082 to 0.084 across the state, to align with 2015 IECC.
	R402.2.1	100% R-30 coverage is allowed to meet the R-38 ceiling insulation requirement (CZ2) if insulation extends over the wall top plate without compression. New language essentially clarifies an existing requirement.
	R402.2.14	Common walls required to include minimum R-11 insulation, space permitting.
	R402.4.1.2	Raised ACH50 infiltration target from 5 to 7, weakening air tightness requirements.
	R402.4.1.2	Clarifies that remodels don't need to have air leakage testing unless 85%+ of a home is renovated.
Performance	R405.2.1	Minimum R-19 ceiling insulation typically required, R-10 is the minimum if space constrained ("space constrained" is limited to single assembly ceilings of the exposed deck and beam type and concrete deck roofs).
	R405.5.2(1)-Table	Raised standard reference design air infiltration rate from 5 to 7. This means the assumed air leakage was increased in the performance path model home. This reconciles the reference design with the prescriptive path change.
NEW Energy Rating Index (ERI)	R406	Creates new compliance path with a compliance target of 58. The only approved software to model compliance in Florida is EnergyGauge.
	R406.2	When the ERI compliance path is used, insulation levels must meet or exceed 2009 IECC prescriptive requirements. If on-site renewable power is used (e.g. solar), insulation levels must meet or exceed 2015 IECC prescriptive requirements.



## WHAT IS ERI?

**THE ENERGY RATING INDEX PATH (ERI)** provides a new path for code compliance. If you are using the ERI path, you need to achieve a certain numerical score, from 0-100, to achieve energy code compliance. The score of 100 on the scale is designed to align with the 2006 IECC model code. With ERI, a lower score means a more energy efficient home. Certified software needs to be used to determine code compliance. In Florida, the target ERI score is 58, and EnergyGauge is the only certified software. While the ERI is a performance path approach, it also carries certain mandatory elements. For example, if a builder uses the ERI path, the insulation levels must still meet or exceed the prescriptive levels found in the 2009 IECC.

### How does it relate to HERS?

Technically, the ERI path is distinct from the Home Energy Rating System (HERS), as other approved home rating programs could, in theory, be used for ERI compliance. As a matter of practice, using the ERI path means builders need to use HERS to demonstrate building code compliance.

### What do ERI and HERS have to do with renewable energy?

The HERS system allows for the use of renewable energy to reduce your score, so effectively ERI does as well. However, to ensure that renewable energy is not used as a substitute for more permanent and reliable energy efficiency measures, the code contains backstop provisions. If ERI is used for compliance, and renewable energy is incorporated, builders must construct a building envelope that meets the prescriptive envelope requirements of the 2015 IECC.

*This summary is offered for informational purposes only. It does not purport to be an exhaustive analysis of code changes or provide advice that will ensure guaranteed compliance with any energy code provision. Please consult with local authorities before finalizing your installation plans.*



## FAQS

### Is the updated code more or less stringent on air tightness?

The new code is less stringent. While the mandatory 7 ACH50 remains, the prescriptive path requirement went from 5 ACH50 to 7 ACH50, and the reference design level in the performance path also moved up from 5 ACH50 to 7 ACH50.

### What path will builders likely move towards with the new code?

Currently, more than 90% of homes built in Florida comply using the Performance Path. After review of the 2017 FEC, this is unlikely to change as the new ERI compliance path is viewed as more stringent than other paths. Over time builders may shift to the ERI path as it provides compliance credit for on-site renewable generation, Energy Star appliances and other measures that the Performance Path does not.

### What's happening with blower door testing?

Blower door testing became a mandatory requirement in the previous FEC. However, implementation of the requirement was delayed until July 1, 2017. Starting on this date, blower door testing is mandatory for all homes, whether complying with the performance or prescriptive path. The mandatory limit is 7 ACH50 for all paths.



## WANT TO LEARN MORE?

- **Read the new code language here:**  
<https://codes.iccsafe.org/public/collections/FL>
- **Review changes versus the 2015 IECC here:**  
[http://www.floridabuilding.org/fbc/commission/fbc\\_0617/Energy\\_TAC/FSEC\\_Residential\\_Code\\_Review\\_Draft\\_Final\\_Report.pdf](http://www.floridabuilding.org/fbc/commission/fbc_0617/Energy_TAC/FSEC_Residential_Code_Review_Draft_Final_Report.pdf)
- **Learn more about the ERI compliance path here:**  
<https://www.energycodes.gov/resource-center/training-courses/2015-iecc-%E2%80%93-energy-rating-index-eri-compliance-alternative>

## Get the Facts for a Stronger Business

Learn more about fiber glass and mineral wool insulation at [InsulationInstitute.org](http://InsulationInstitute.org)

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