



The Energy Rating Index: **UNDERSTANDING THE ERI**

Flexible. Enforceable. Effective.

Leading Builders of America
September 2016



The Energy Rating Index (ERI)



Key Facts about ERI:

- ◆ A new voluntary performance option in the 2015 IECC (Section R406)
- ◆ Developed through collaboration of the Natural Resources Defense Council and Leading Builders of America
- ◆ Based on the widely used RESNET Home Energy Rating System (HERS), which has rated 1.5 million new homes
- ◆ Requires houses to meet specific ERI scores (lower score = more efficient house), based on climate zone
- ◆ Mandatory compliance with building thermal envelope requirements
- ◆ Provides new compliance tools, including renewables, equipment trade-offs, and new technologies
- ◆ Testing and verification of every home by certified third-party inspectors

ERI Makes the Energy Code Better



The ERI is:

● Fair

- Open to solutions from all industries
- Useful for all stakeholders (code officials, builders, manufacturers, consumers)

● Innovative

- Encourages emerging energy-efficient technologies
- Provide optimal compliance paths for stakeholders

● Simple

- Set objective and easily measurable goals
- Encourage adoption and compliance

● Enforceable

- Consensus-developed standard – ICC/RESNET/ANSI 301
- Every home rigorously inspected and tested by professional raters
- Simple compliance report for verification

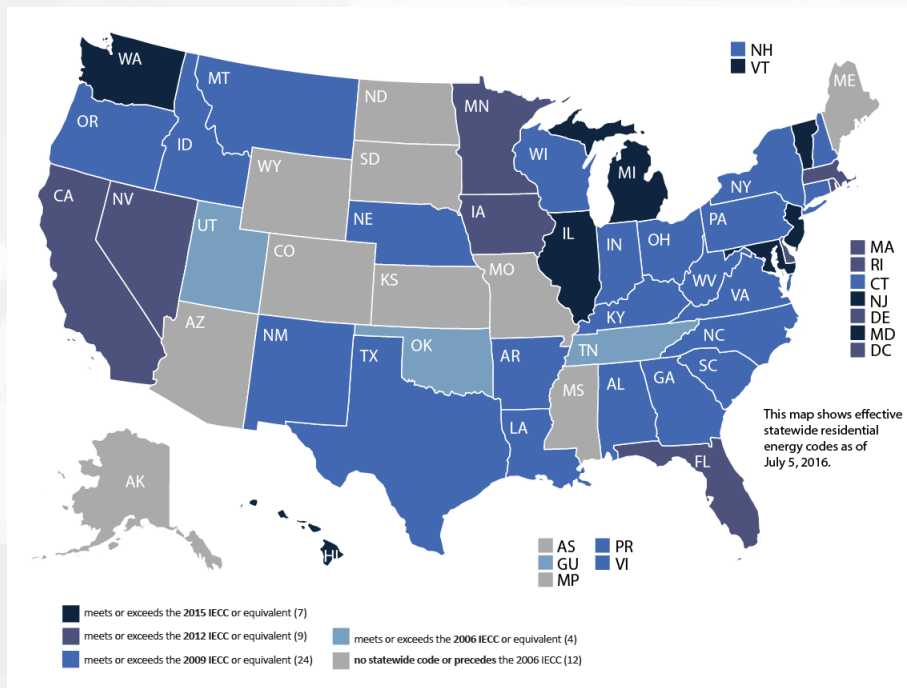
A Broken Energy Code



- ◆ The IECC has been captured by an industry through an “envelope only” approach than requires use of their products *exclusively*.
- ◆ Energy saving options are locked out of the code:
 - HVAC and water heating
 - Lighting
 - On-site renewable power generation
 - Emerging smart technologies
- ◆ Prescriptive performance paths are needlessly complex and costly
- ◆ Difficult for building officials to implement and enforce
 - Requiring extensive field work
 - Other codes (e.g., fire, electrical, structural, plumbing) are priorities

Energy Codes that Aren't Adopted Don't Save Energy

- Newer versions of the IECC are slow to be adopted due to implementation and compliance costs
- Where codes have been adopted, they are heavily modified



Eight states + DC have adopted 2012 IECC code statewide

Seven states have adopted 2015 IECC code statewide



AN ENERGY CODE THAT WORKS

Flexible, Enforceable, Effective

IECC: Three Compliance Paths

1. Prescriptive Path: checking a long list of boxes
2. Simulated Performance Path: an outcomes-focused approach
3. **Energy Rating Index (ERI): a flexible path forward**

Encourage Innovation

- ◆ Reform the envelope-only approach
- ◆ Restore and clarify options to install high-performance HVAC systems and water heating systems
- ◆ Acknowledge that renewables belong in the energy code
- ◆ Allow use of innovative technologies, such as:
 - High-efficiency lighting,
 - High-efficiency water heating
 - Remote and on-site programming
 - Smart glass
 - Demand-management technology

Simplify Compliance

- ◆ Adopt a widely-accepted, open-source standard for measuring energy efficiency
- ◆ Use a measurement standard (ANSI/RESNET/ICC 301-2914) that is familiar to consumers, builders, subcontractors, manufacturers and building officials
- ◆ Provide flexibility and cost-effectiveness for builders and homebuyers to achieve agreed-upon efficiency goals
- ◆ Supply code officials with inspection and testing results from certified third-party inspectors for every house



Improve Enforcement

- ◆ Ease inspection/plan review process and simplify compliance report
- ◆ Adopt a simple “pass/fail” approach measured by easily-measured criteria
- ◆ Inspection and testing for every home
- ◆ Augment inspection force with certified third-party participation
- ◆ Provide building officials with documentation of inspection and test results

Key Reforms for ERI in the 2018 IECC

RE 166

- ◆ Adopts ANSI/RESNET/ICC 301-2014 for the ERI.
- ◆ Restores a renewable energy option.
- ◆ Restores technology and equipment trade-off options.

RE 173

- ◆ Sets achievable, realistic ERI scores for the energy code.
- ◆ Sets scores 20% lower than current prescriptive path.
- ◆ Allows stakeholders to choose the path that works for them.

What it means

- Wider adoption of the IECC.
- Simplified compliance.
- Firmly establishes the ERI as a flexible path for the future.
- Protects the code from “road blocks.”
- New, innovative options.

Building envelope performance requirements are retained in the energy code

An Energy Code that Works

Results for Code Officials

Savings for Homebuyers

Flexibility for Builders

- ◆ Including renewables makes a long-term “net-zero” goal possible
- ◆ An energy code adopted by more communities will save money *and* save energy
- ◆ Improvements to the inspection and compliance reporting process help builders as well as code officials
- ◆ Wider application of renewable energy and emerging technologies will spur innovation
- ◆ Maintaining building thermal envelope requirements ensures “backstop” performance
- ◆ Consensus standards and a transparent process will ensure a flexible and competitive code

FOR MORE INFORMATION:

Clayton.Traylor@leadingbuildersofamerica.org