The Energy Rating Index:
UNDERSTANDING THE ERI

Flexible. Enforceable. Effective.

Leading Builders of America
August 2016

AN ENERGY CODE THAT WORKS
Flexible, Enforceable, Effective

The Energy Rating Index (ERI)

Key Facts about ERI:

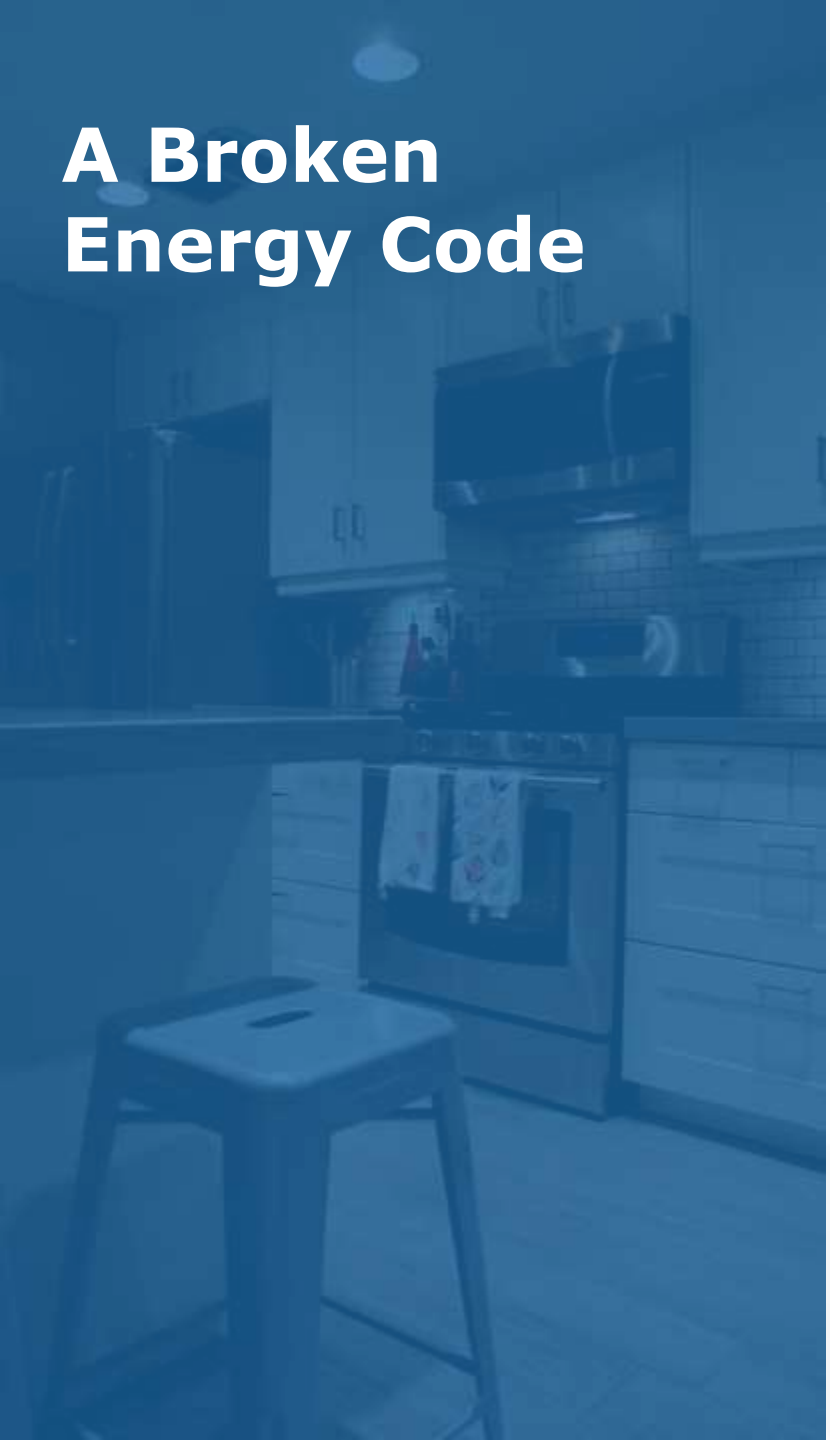
- A new voluntary performance option in the 2015 IECC (Section R406)
- Developed through collaboration of the Natural Resources Defense Council and Leading Builders of America
- Based on the widely used RESNET Home Energy Rating System (HERS), which has rated 1.5 million new homes
- Requires houses to 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

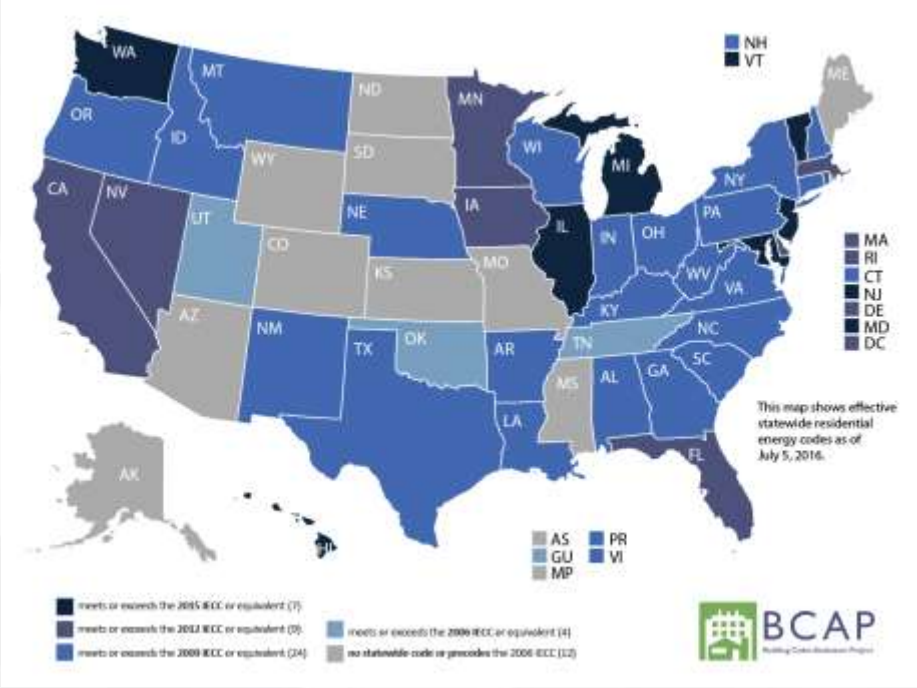
A Broken Energy Code



- 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

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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 programing
  - 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	RE 177	What it means
• Adopts ANSI/RESNET/ICC 301-2014 for the ERI. • Restores a renewable energy option. • Restores technology and equipment trade-off options.	• 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.	• 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

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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:

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