



Setting the Standards for
Home Energy Efficiency

RESNET and the International Energy Conservation Code

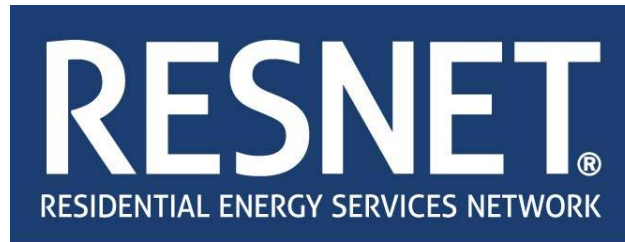
Energy Foundation/BCAP Annual Meeting

Steve Baden

RESNET Executive Director

www.resnet.us

What is RESNET



- An industry-based, not for profit organization
- A national standards making body for building energy efficiency rating and certification systems in the USA (ANSI Accredited Standards Development Organization)
 - Consensus based standard development and amendment process
 - Transparent review and adoption process – Formal public review and comment process

RESNET 20th Anniversary

20 YEARS OF
SUCCESS | Setting the
Standards for Quality
1996 - 2016

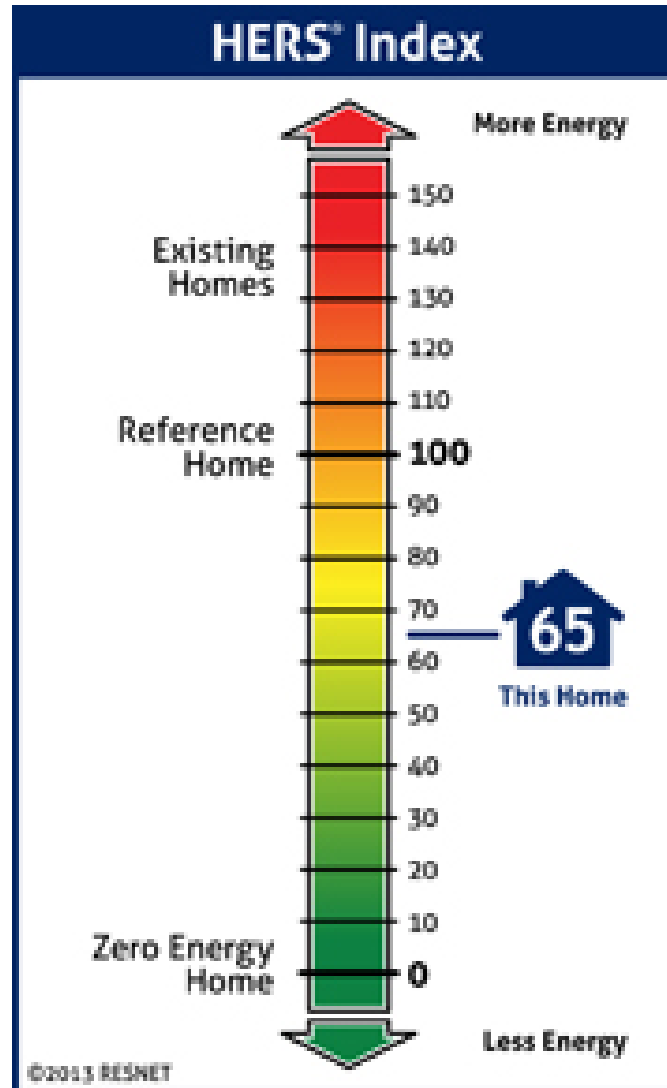
What Are Home Energy Ratings

A home energy rating is a whole house analysis of a home's energy efficiency by a trained and certified RESNET Home Energy Rater. The house data is entered into a RESNET accredited rating software tool which produces the rating

The rating produces a HERS Index Score. The HERS Index is the nationally recognized scoring system for measuring a home's energy performance.

The HERS Index can be described as a miles-per-gallon (MPG) sticker for houses.

The RESNET HERS Index



Number of Homes Receiving HERS Index Rating



1,735,669

TOTAL Number of HERS-rated Homes to Date

Number of homes
HERS-rated in 2015

190,180

30% increase
from 2014



NEW HOMES
sold in the US
are HERS-rated

HERS Rated New Homes Are Much More Efficient



Average HERS[®] Index
Score for 2015



More energy efficient
than in 2006



More energy efficient
than in the 1970s



Annual energy bill savings of
\$143 MILLION



Reduction of carbon
dioxide emissions by
851,540 tons

HERS Index Trends in 2016

Number of Homes Rated and Issued a HERS Index in First Three Quarters of 2016 – 136,677 (13,628 more homes than same period in 2015)

Average HERS Index Score – 61 (39 more efficient than a home built recently as 2006)

As more homes rated the better home's energy performance increased

Importance Difference to Keep in Mind

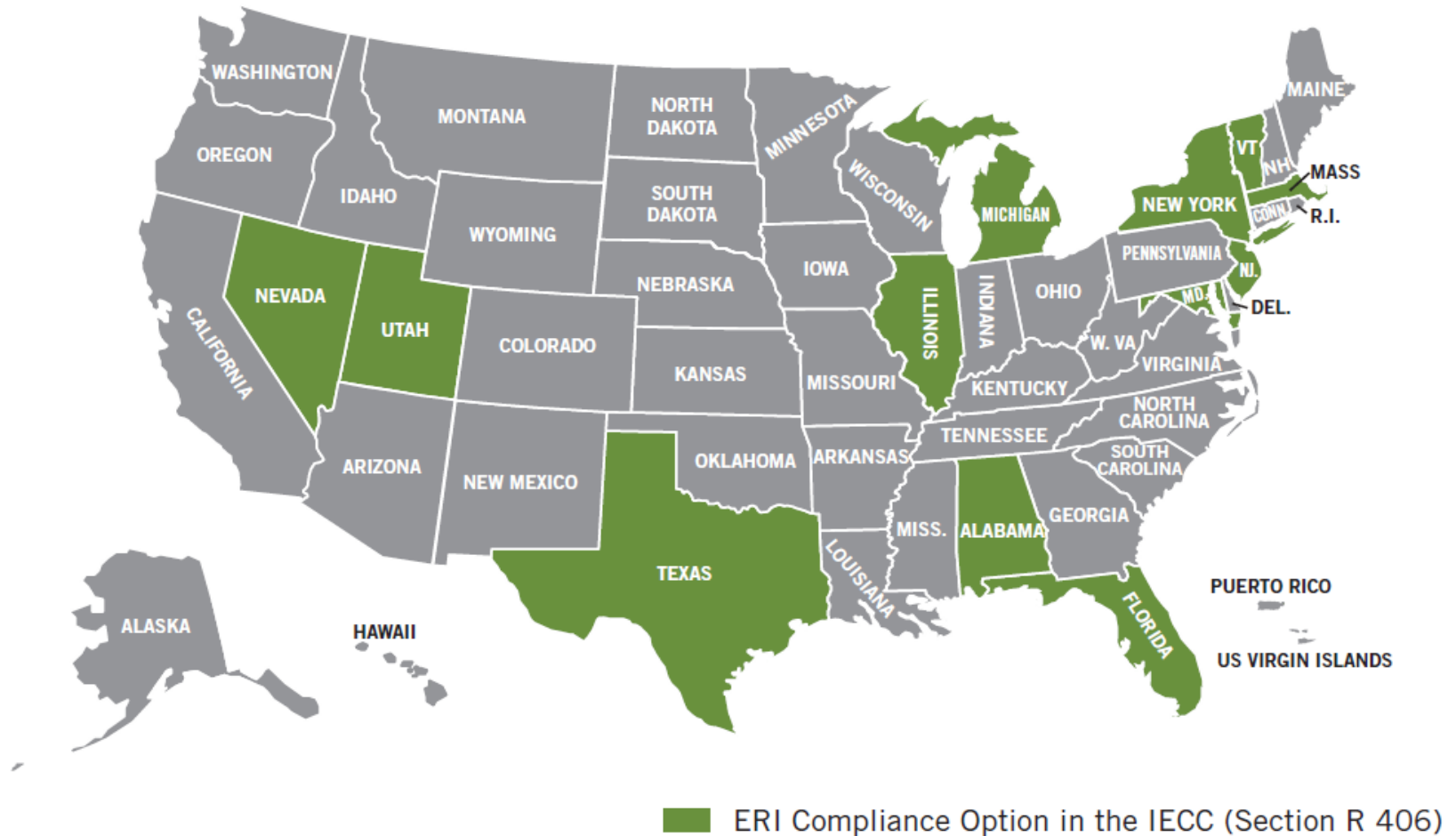
All HERS Ratings Comply with Energy Rating Index

But

HERS Ratings are not the Only Option to Comply with the Energy Rating Index

ANSI Energy Rating Index Standard is Open Source – Any Organization Can Develop an Energy Rating Index Program Based on Standard – Up to Code Jurisdiction to Recognize

States that Allow the ERI Compliance Option in the *International Energy Conservation Code*® (IECC®)



HERS & Energy Codes Prior to Energy Rating Index

Prior to the ERI state and local code jurisdictions adopted HERS Index as a code compliance option

Arkansas

Colorado

Idaho

Kansas

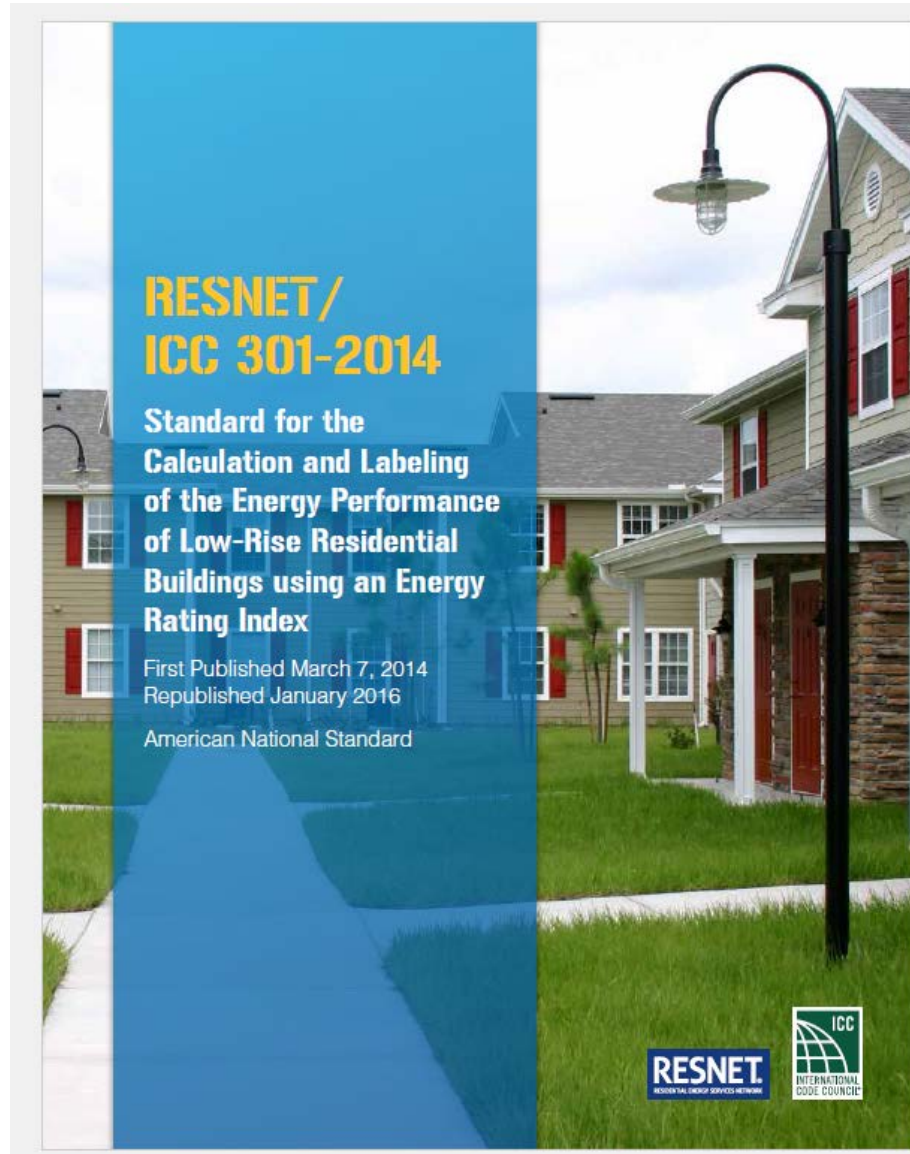
Massachusetts

Nevada

New Mexico

New York

The ANSI/RESNET/International Code Council Energy Rating Index Standard



RE166-16

RE166 Proposed to Recognize the ANSI/RESNET/Standard 301 to Define Energy Rating Index Path of the 2018 IECC.

Provides clarity and consistency in how the ERI is calculated.

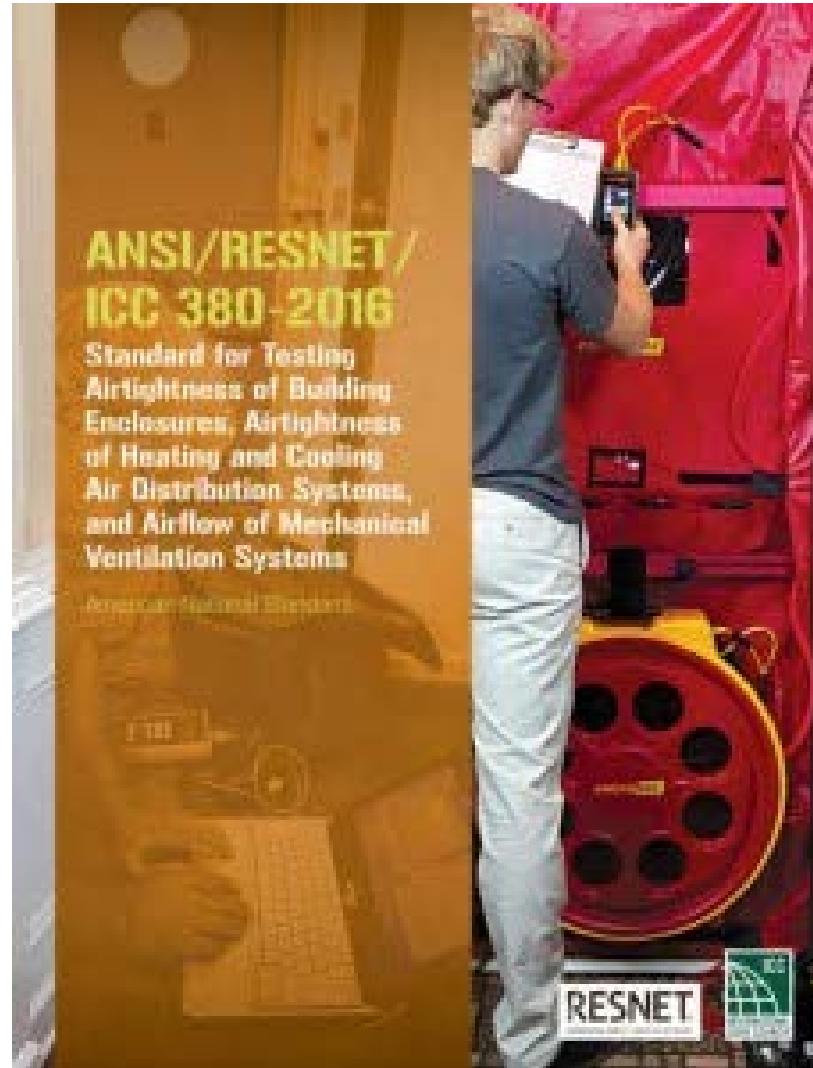
Public Comment 1 exempts homes from meeting the ventilation requirements of Standard 301 where a home is built in accordance with the International Residential Code.

RE173-16

RE173 – Raises the ERI numbers from the current (51-55) to (57-62).

Public Comment 1 addresses the use of onsite power in the ERI path by requiring that when onsite power is used in calculating the ERI score, the minimum envelope levels of the 2015 IECC are met.

ANSI/RESNET/ICC Residential Air and Duct Leakage Testing Standard



RE83 & RE104

Uses ANSI/RESNET/ICC Standard 380 the standard for performing air and duct leakage testing.

The 2015 IECC and previous versions provide requirements for testing ducts and air leakage, but no guidance on how they should be tested.

RESNET Actions to Meet New Responsibilities of Codes

- RESNET Accredited as ANSI National Consensus Development Organization
- Commitment and Investment in Enhancing National Consistency of HERS Ratings
- Partnership with the International Code Council
- Development of RESNET Suppliers Advisory Board – Voice to Product Manufacturers



Commitment to Quality

**Qualified
HERS
Raters**

**Enhancing
Quality
Assurance**

**Consistent
Calculation of HERS
Index Scores**

**Quality
Assurance
Infrastructure**

RESNET Rating Quality Assurance Process

- Independent Annual Field and Building File Quality Assurance Monitoring of all Raters (1% in field – 10% building file)
- RESNET's New QA Standards will Require Quality Assurance Activities will be Undertaken by Agents of RESNET
- RESNET Staff Review of Provider Quality Assurance Documentation

RESNET Rating Quality Assurance Process

- Robust Disciplinary Process
- Development of Online Electronic Data Management System (100% Review of all HERS Ratings Real Time)
- New Procedures and Tests to Enhance Consistency of HERS Software Programs to Calculate HERS Index Scores
- RESNET New Quality Assurance Standard to Require \$1 Million in Professional Liability

RESNET Rating Quality Assurance Process

- New Standard Enhancing Consistency in Training and Assessment of Raters
- Increased Resources and Staffing for RESNET Quality Assurance Oversight
- Online Access to Code Officials and Consumers to Determine if Home is HERS Rated, Rater and HERS Index Score of Home
- Robust Consumer Complaint Resolution Process Coordinated with EPA

RESNET – International Code Council Partnership

- Online Directory for Code Officials to Determine Whether Person is Certified HERS Rater
- Joint Standard Development (ANSI/RESNET/ICC Standards 301 & 380)
- Joint Effort to Have Raters to be Certified as ICC Energy Code Inspectors and Members of the ICC
- Joint Education Program for Code Officials on Energy Rating Index Option

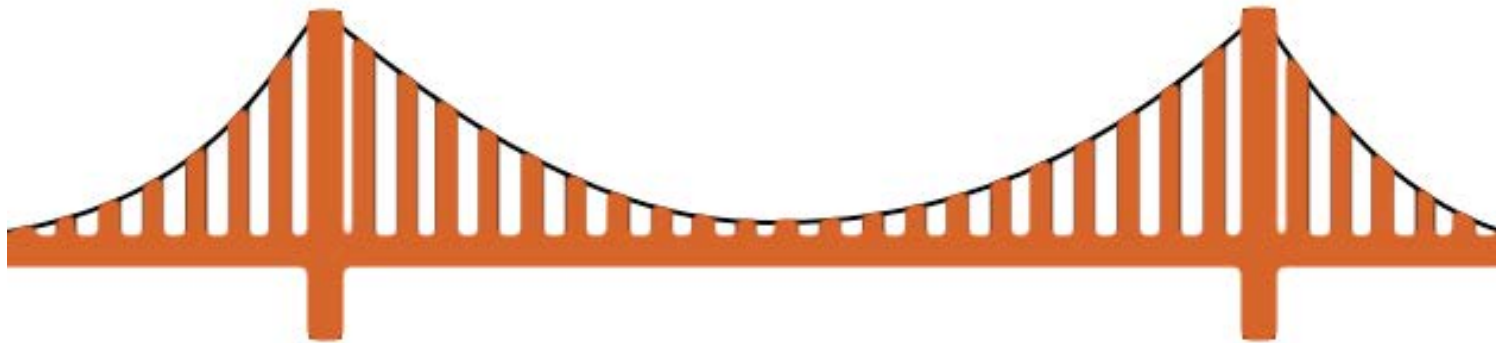
Role of HERS Index in Mainstreaming Energy Performance in Market

Serving as Bridge from Product Development to the Market Place

New Product Development

HERS Index

Market Place



You Are Invited



2017 Conference

Scottsdale, AZ • Feb 27 - Mar 1

