U.S. Department of Energy
Home Energy Score

Joan Glickman

November CT Webinar
Why Should You Care about Residential Labeling?

Home Owners & Sellers want to get credit for their investments in energy efficient equipment and other features.

Home Inspectors/Qualified Assessors

Real Estate Agents & Consumers

Utilities, Contractors, States, Cities

Lenders

Appraisers

MLS

Reliable Energy Data on Homes

Encourage Retrofits

Capture the Value of Energy Performance in Homes

Home Buyers want to know what they’re buying and be able to predict monthly expenses (e.g., utility costs)
Provide Home Energy Information Through DOE’s Home Energy Score

This “miles-per-gallon” rating for homes can help homeowners/buyers/sellers*:

✓ Understand a home’s energy use, estimate utility bills, and ways to improve efficiency
✓ Showcase energy improvements they make to their home when they’re ready to sell

The Home Energy Score is –

**FAST.** Takes less than one hour in most homes.

**AFFORDABLE.** Free Assessor training & testing keep costs low.

**SIMPLE.** Easy to understand 1 to 10 scale.

**CREDIBLE.** Created through robust testing and analysis.

**FLEXIBLE.** Available through various programs and software.

*Applicable for single-family homes and townhomes only.
What A Home’s Score Means

The Score is based on a home’s energy-related assets – those features that typically convey at time of sale

- Assumes average weather for that location and “typical” occupant behavior
- More reliable than past bills
- Allows an “apples to apples” comparison between homes

The less energy a home is expected to use, the higher its Score

1. Higher energy use
   - Homes expected to use more energy each year than 85% of U.S. homes

2. 2
3. 3
4. 4
5. 5
6. 6
7. 7
8. 8
9. 9
10. Lower energy use
    - Homes expected to use less energy than about 50% of U.S. homes; average energy costs
    - Homes expected to use less energy than 90% of U.S. homes
A Tool for Homes

The U.S. Department of Energy's Home Energy Score assesses the energy efficiency of a home based on its structure and heating, cooling, and hot water systems. For more information visit homeenergyscore.gov.

This Home...

Currently Wastes 44% of Energy on Inefficiencies

Could Save $882 Each Year on Energy Costs

Could Eliminate 36% of CO2 Emissions with Cost-Effective Upgrades

This home is expected to use $1.18/kWh and cost $2.04/NF compared to an average home at $1.64/kWh and $3.77/NF.

Estimated Energy Use

<table>
<thead>
<tr>
<th>Natural Gas</th>
<th>Electricity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,324 therms</td>
<td>9,716 kWh</td>
</tr>
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</table>

With Improvements:

<table>
<thead>
<tr>
<th>Natural Gas</th>
<th>Electricity</th>
</tr>
</thead>
<tbody>
<tr>
<td>849 therms</td>
<td>8,649 kWh</td>
</tr>
</tbody>
</table>

Six page report details the home's energy features and cost-effective energy solutions.
Home Energy Score Highlights & News

- **75,000+** Homes scored
- **500+** Assessors nationwide
- Remote Quality Assurance & Mentoring Now Underway
- State and local adoption
  - **Berkeley, CA and Portland, OR** require Score at time of sale or listing
    - NYC introduced legislation, others considering
  - **AL, AR, CO, CT, MO, NH, OR, VT**
    - Others considering (e.g. MA, NY, RI, WI)
- FHA Homebuyer Counseling
  - Webinar for training orgs on November 30th!
  - Outreach to REALTORs & homeowners/buyers
    - Education modules
    - Presentation materials

“Find An Assessor” Tool at homeenergyscore.gov
Partner Requirements Ensure Quality

**Partner Requirements & Benefits**

**Upon Joining**
- ✓ Sign a partnership agreement
- ✓ Develop an implementation plan

**Annual Commitment**
- ✓ Complete 500+ Scores per year
- ✓ Rescore 5% of homes (Quality Assurance)

**On-going**
- ✓ Participate in Partner webinars
- ✓ Receive data for all homes scored in your area
- ✓ Access marketing materials, logos, etc.
Home Energy Score is a flexible offering that can be integrated into a variety of different programs and efforts.

Some examples in use:
- City/State policies
- Home Performance with ENERGY STAR
- Direct Install programs
- Utility rebate programs
- Real estate transactions
- And more......
Latest version is streamlined, takes less time to complete

- Uses computer-based simulations to recreate a range of job-site scenarios.
- Teaches you how to measure the Score data input consistently so that consumers can have confidence in the Score & calculations
- Show you how to use “de-rate” calculators that help take into account the quality of insulation installation as well as equipment maintenance
- Developed with significant input from outside experts & practitioners.

Webinar Demo of 3D Tool
January 27 recording available online.
Remote Quality Assurance & Mentoring
Now Available!

Less costly methods to fulfill mentoring and QA requirements

- Virtual Mentoring
- Desktop QA
- Standard protocols
  - Assessor submits required photos
  - Reviewer rescores home for quality check
Application Programming Interface (API)… Simplifies Data Collection

- Third-party software companies can license the Home Energy Score API to build applications that exchange data with the tool
  - Use API and avoid double data entry

- Software companies/organizations that completed API integration:
  - Cake Systems
  - EnergySavvy
  - Enhabit
  - Franklin Energy
  - Home Energy Score PDX
  - Home Inspector Pro
  - OptiMizer
  - Paperless (Inspection Depot)
  - United Illuminating
  - Snugg Pro

Don’t see your software provider or implementation contractor on this list?

✓ Tell them you want to deliver this feature to your customers!

✓ It’s EASY for them to do!
Social Media Campaigns... Getting the Word Out

Winter is coming. Are you ready?

U.S. DEPARTMENT OF ENERGY
Home Energy Score

Know your home. Know your Score.
Real Estate Integration

✔ **Home Energy Information Accelerator**
  - CA, Northeast, and OR green building registries being developed
  - Partners working to auto-populate MLSs and real estate portals with home energy info, e.g. Score
  - Home Energy Information Guide now available

✔ **Education Modules** (inserts)
  - NAR REALTOR® Training (Green Designees)
  - FHA Homebuyer Counseling (in development)
1. **Green Certifications**
   - The home achieves standards of energy and/or green features
   - Popular programs can vary by market

2. **Energy Labels**
   - Applicable to any home
   - Compares home to an accepted standard

3. **Verified Energy Improvements**
   - Proof of investment in upgrades
   - Clarifies differences with “comparable” homes
Financing Products Linked to the Score

- **FHA Policy (January 2016)**
  - Allows lenders to provide a **2% stretch on debt-to-income ratios** for borrowers purchasing or refinancing a home
  - Home must score **6 or higher** or reach a 6 or higher with financed improvements

- **Fannie Mae’s HomeStyle® Energy Mortgage Loan**
  - **Finance up to 15%** of “as completed” home value for energy improvements with purchase or refinance; requires Score or comparable report
  - **$500 incentive** to lender on each loan
Mortgage Financing Integration

- Fannie Mae and Freddie Mac undertaking analysis and pilots to support more systematic consideration of energy efficiency in loans (“Duty to Serve” regulation)
- Pilots planned for 2018-2020
Value Proposition to Various Stakeholders

<table>
<thead>
<tr>
<th></th>
<th>States &amp; Cities</th>
<th>REALTORS</th>
<th>Utilities</th>
<th>Consumers</th>
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<tbody>
<tr>
<td>Better serve customers/residents</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
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<tr>
<td>Show/capture value of upgrades</td>
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<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Promote energy efficiency</td>
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<td>✓</td>
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<tr>
<td>Reliable estimate of utility costs</td>
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<tr>
<td>Low cost assessment with tailored upgrade recommendations</td>
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<tr>
<td>Standardized data collection</td>
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<td>✓</td>
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<td>Better understanding of housing stock</td>
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...and more
Ongoing Issues

Home Energy Information Pipeline

Reliable Home Energy Data → Standardized Home Energy Data → Access to Home Energy Data → Use of Data in Home Listings → Consumer Awareness

Ongoing Issue:
- Automated Energy Models (AEMs)

Ongoing Issue:
- Privacy and data access issues

Ongoing Issue:
- Market confusion

Ongoing Issue:
- Limited access to financing
Automated Energy Models

- Need to clarify to consumers, real estate professionals that these are NOT reliable
- Rocky Mountain Institute analysis using Home Energy Score data
- Potential for improved remote asset assessments

Opportunities to reduce confusion and grow pipeline

- Common metric with ENERGY PLUS
  - Estimated BTUs, cost
  - HERS, Home Energy Score, GSEs, LEED, weatherization programs, others?

Integration with financing

- Value EE at point of sale AND/OR finance upgrades as part of mortgage
- Fannie Mae/Freddie Mac pilots with DOE and others
“Simply requiring **newly built homes** to be more energy efficient would reduce residential emissions by an average of **6 percent** by 2030.

But requiring **existing homes** to be retrofitted would yield a **further 19 percent reduction** of residential emissions, on average.”
Thank You!

Contact us for more information at
HomeEnergyScore@ee.doe.gov
or visit our website at
www.HomeEnergyScore.gov