

Valuing Energy Efficiency & Solar in the Real Estate Transaction

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Making Home Energy Performance Visible and Understandable

The U.S. Department of Energy created the Home Energy Score to serve as a nationally standardized “miles-per-gallon” rating for homes

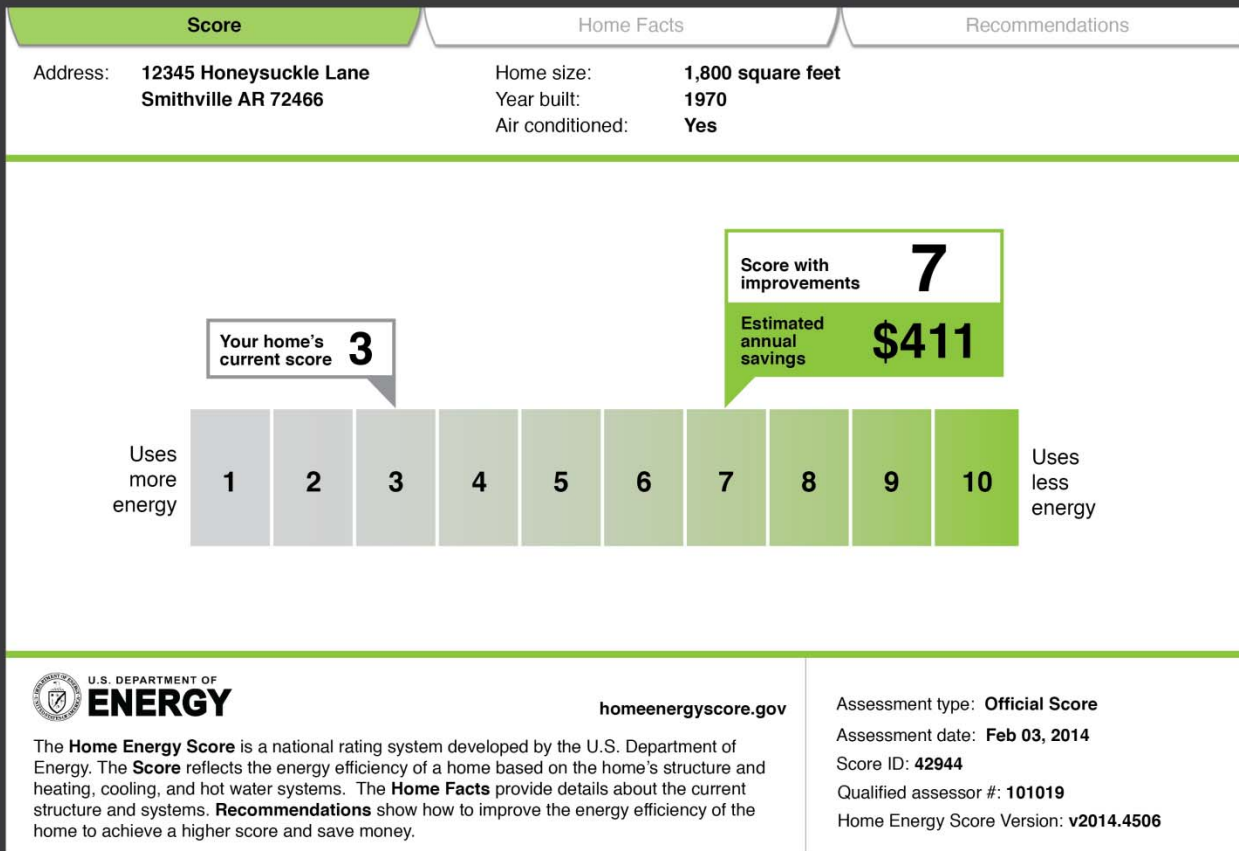
- Offers homeowners **affordable, reliable, easy way** to understand homes’ energy performance
- Available at **no-cost** to program providers
- Intended to **motivate homeowners** to invest in residential energy efficiency
 - Simple and action-oriented
 - Ability to document investment in energy efficiency using the post-improvement score



Home Energy Score website: www.homeenergyscore.gov

The Score Report

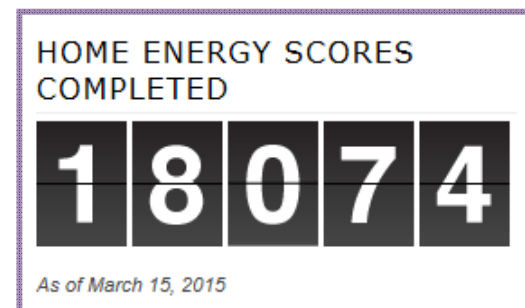
Home Energy Score



- Takes an hour or less to complete
- Can be generated by home inspectors, contractors, utilities, others
- Can be used directly on-line or linked to other software tools
- No reporting requirements, all automated
- Builds on social norming principles: “5” represents a home with expected average energy use

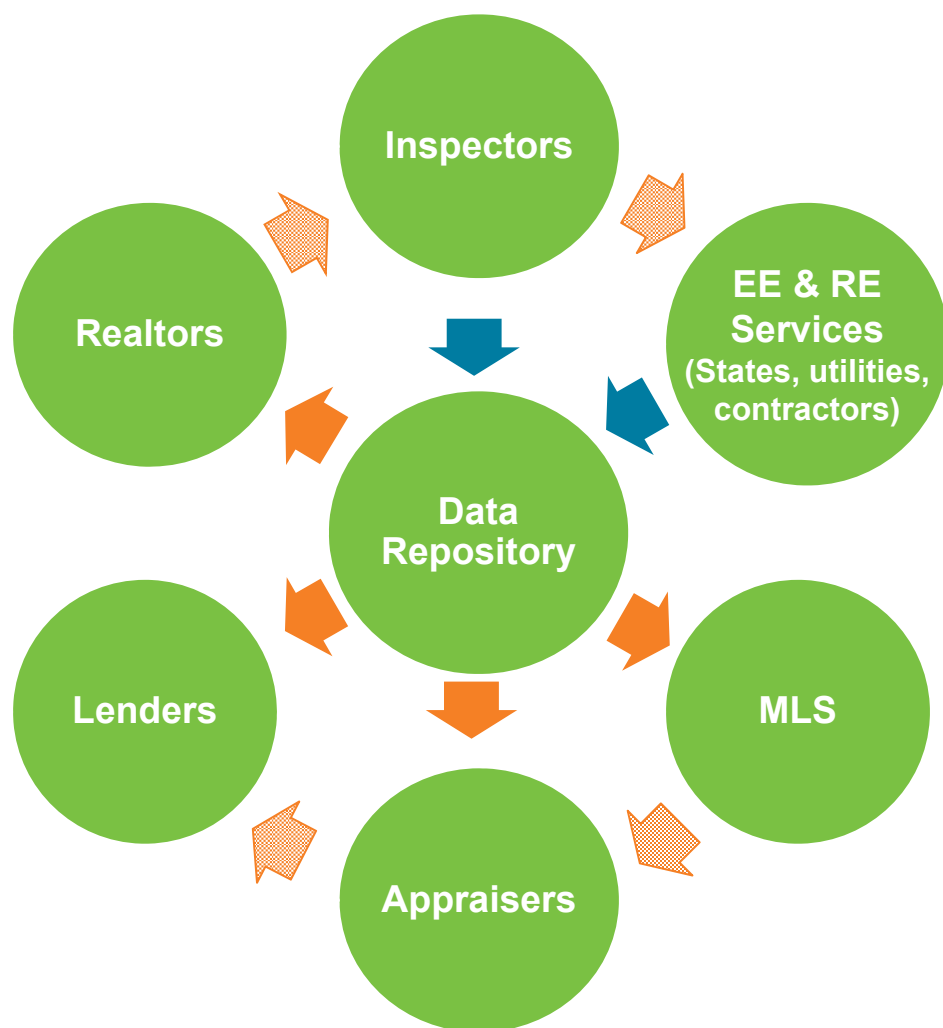
Market Adoption Highlights

- ✓ Score is a **flexible offering** that can be customized and delivered through many avenues
 - Home Performance with ENERGY STAR; direct install programs, as part of real estate transactions
- ✓ DOE launched **new 3-D training & testing tool** for Assessors
 - Allows greater number and type of building professionals (e.g., **home inspectors**, HVAC contractors) to offer the Score
- ✓ Software companies licensing Home Energy Score Application Programming Interface (API)
 - Allows **seamless data transfer** and avoids need for double entry by users
- ✓ **Statewide use**
 - CO, CT, MO, OR, VT
 - Others likely to adopt include AL, AR, NY
- ✓ Local governments integrating Score in **disclosure policies**
 - City of Berkeley passed ordinance earlier this year



So, how do we make this
information AVAILABLE and
USED in real estate
transactions?

Closing the Loop to Capture the Value of EE & RE in Homes



- ❖ Maintain energy information in a central repository (or make it part of public record)
- ❖ Make energy information non-threatening and useful to homebuyers
 - ✓ Buyers generally want to know what their monthly costs are going to be as a homeowner (e.g., utility costs)
 - ✓ Ideally, realtors will encourage buyers to have a home energy assessment as part of inspection
 - ✓ Inspectors can not only inform the buyer, but point out opportunities for greater efficiency and as well as incentives, retailer offers (e.g., lead generation)
- ❖ Automate information flow to MLS
- ❖ Design policies that encourage lenders and appraisers to seek out the information
 - ✓ Greater training and outreach to lenders & appraisers
 - ✓ Need clear policies on how this information can be used to inform lending decisions and valuation

Engaging Key Players

Key Players	Motivation	Key Challenges	National Progress
Realtors	<ul style="list-style-type: none"> Differentiation Customer service 	<ul style="list-style-type: none"> Awareness/training Fear of negative information 	 Gaining traction
Inspectors	<ul style="list-style-type: none"> Differentiation Additional revenue 	<ul style="list-style-type: none"> Awareness 	 Gaining traction
Appraisers	<ul style="list-style-type: none"> Required to analyze all characteristics of the house 	<ul style="list-style-type: none"> Awareness/Training Additional effort Lack of comps 	 Slow progress
Lenders	<ul style="list-style-type: none"> Minimize risk 	<ul style="list-style-type: none"> Quantifiable impact on foreclosures Favor “comp” appraisals 	 Slow progress
MLS Boards	<ul style="list-style-type: none"> Keeping up with market Delivering information of interest 	<ul style="list-style-type: none"> Data transfer protocols Privacy 	 Gaining traction
EE & RE Services	<ul style="list-style-type: none"> Increased program participation Capture value of investments 	<ul style="list-style-type: none"> Awareness Consistent metrics & information 	 On board & growing

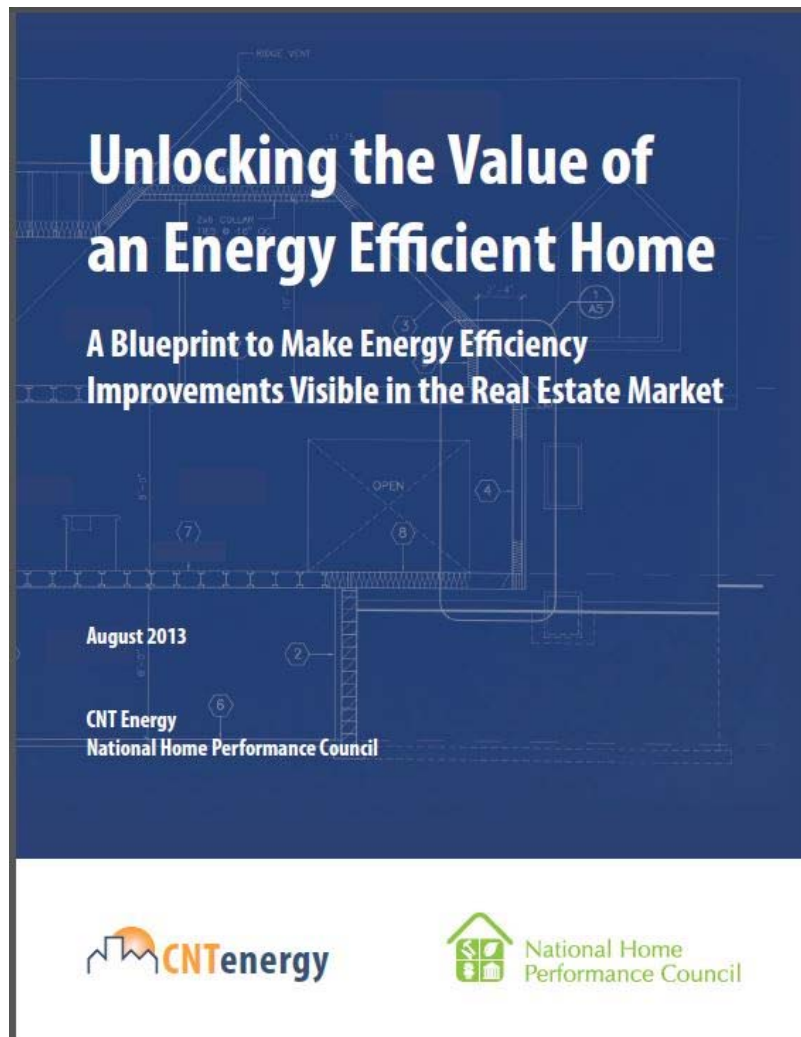
Draft Questions for the Panel:

- *We've talked about the importance of making reliable energy information, whether EE or solar, transparent during real estate transactions and how that information can figure in to the appraised value of a home. However, getting that information incorporated into the appraisal process is not so simple. What are some of the challenges to valuing energy in appraisals? Any ideas on how to overcome these challenges?*
- *What do we still need to figure out or what needs to be done to enable energy information to be put onto MLSs on a broad scale? (e.g. need a sustainable source of data, IT infrastructure needs, auto-population...)*
- *What will it take to get the majority of homeowners to consider energy use, efficiency and renewables when purchasing a home?*
- *Real estate agents serve as a gateway of information to many homebuyers. If real estate agents aren't informed about a home's energy performance and its impact on costs, chances are the homebuyer won't consider energy use as a factor when choosing a home. What is being done to educate real estate agents on this topic? (could include if this isn't sufficiently mentioned in the panel's presentations)*
- *Where do you think we should focus our attention in order to make valuation of efficiency and renewables a common feature of real estate transactions?*
- *Are there any lessons learned from experience valuing solar that we can apply to the efficiency side?*

- What are the pros and cons of different property valuation techniques for energy efficiency and solar?
- What steps can energy efficiency programs take to ensure that information about high performance homes can be factored into real estate transactions?
- How can energy efficiency programs support homeowners in finding trained Realtors and appraisers?

- Recent studies show that prospective home buyers are looking for homes with green and energy-efficient features – and are willing to pay more for them. However, the real estate system does not make it easy for consumers to get information about these homes. Few multiple listing services (MLSs) include “green fields” that document the green and energy-efficient features of homes listed for sale. In addition, most real estate agents are not trained in supporting buyers and sellers of energy-efficient homes, and appraisers and mortgage lenders often lack the training to appropriately value energy efficiency and solar. This session will report on recent activity in Washington, DC to green the MLS and track sales data for high performance homes, and present the results of a recent study to quantify the value that solar photovoltaic (PV) systems add to home sales. It will also share how Vermont is engaging with the real estate industry and MLS to promote energy-efficient homes.
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- Ben Hoen (LBNL) to walk us thru valuation and appraisal techniques, and the progress that’s been made in terms of capturing the value of PV at time of sale and in appraisals
- Cliff Majersik (IMT) will share EE perspective and making connection to MLS, NC study and DC work as examples
- Rebecca Foster (VEIC) will highlight VT’s experience in trying to make these connections. Brings it to the program/on the ground level.

Elevate Energy: The Visible Value Blueprint



1. Document Upgrades
2. Disclose Inventories
3. Continuing Education
4. Green MLS Usage
5. Appraiser Designed Valuation Studies
6. IT Solutions: HPXML
7. Work with Lending Institutions