Appraisal Institute®

Professionals Providing Real Estate Solutions

KNOWLEDGE. | EXPERIENCE. | INTEGRITY.

RESNET Conference

Jim Amorin, MAI, SRA, AI-GRS
Sandy Adomatis, SRA, LEED Green Associate

3 Secrets to Tap the Real Estate Market with Energy Ratings

Feb. 28, 2017

Appraisal Institute®

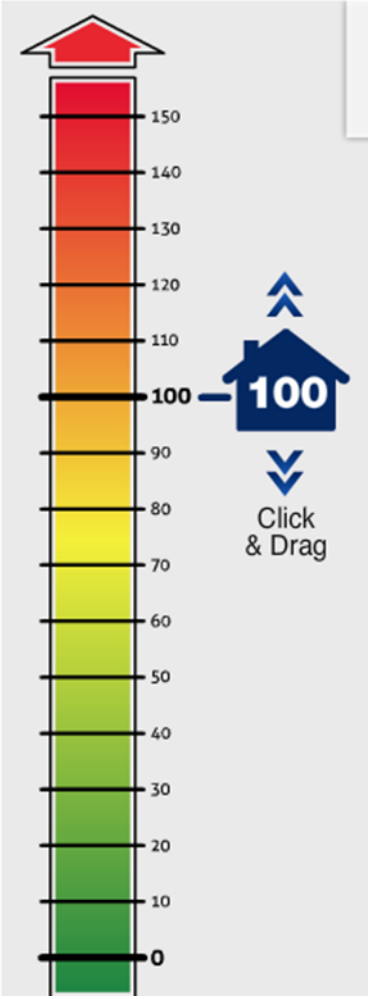
Jim Amorin, MAI, SRA, AI-GRS

Session Highlights

- Tap the real estate market
- Make HERS a household word
- Rater credibility
- Value of HERS

Number of HERS Ratings is Growing

Year	No. HERS Rating
2016	206,583
2015	190,167
2014	170,178
2013	147,511
Source: RESNET	



http://www.resnet.us/hers-index-large-scale

HERS Ratings is Lowering

Year	Lowest HERS Rating	Highest HERS Rating	Avg. HERS Rating
2016	26	74	61
2015	36	76	62
2014	-3	87	60
2013	53	79	60
Source: RESNET			

HERS History

4-year HERS history showing states with more than 40 percent of building permits with HERS ratings

State	AVG HERS 2013	AVG HERS 2014	AVG HERS 2015	AVG HERS 2016	% of Permits w/HERS 2013	% of Permits w/HERS 2014	% of Permits w/HERS 2015	% of Permits w/HERS 2016
DC	66	65	67	59	38.7%	38.9%	65.1%	100.3%
MA	58	62	56	55	68.7%	72.8%	83.1%	99.4%
IN	68	67	66	65	72.8%	68.9%	74.6%	63.5%
IA	61	60	59	56	54.1%	58.3%	66.2%	61.1%
MD	60	59	57	55	59.1%	54.5%	53.8%	58.7%
CO	60	59	57	55	45.0%	49.0%	51.2%	57.5%
CT	56	53	55	53	31.5%	29.7%	49.1%	51.6%
AZ	61	62	63	63	16.6%	57.0%	49.7%	51.3%
MN	54	57	53	51	11.1%	56.8%	38.3%	47.7%
DE	59	57	55	53	46.9%	38.3%	55.2%	44.1%
Average	**60**	**60**	**59**	**57**	**44.4%**	**52.4%**	**58.6%**	**63.5%**
Median	**60**	**60**	**57**	**55**	**45.9%**	**55.6%**	**54.5%**	**58.1%**

Source: RESNET and NAHB statistics on HERS Ratings compared to number of building permits

Just two questions for you …

Are the HERS ratings lost in the transaction?

If they are lost in the transaction, how can they gain relevance in the market if they are hidden?

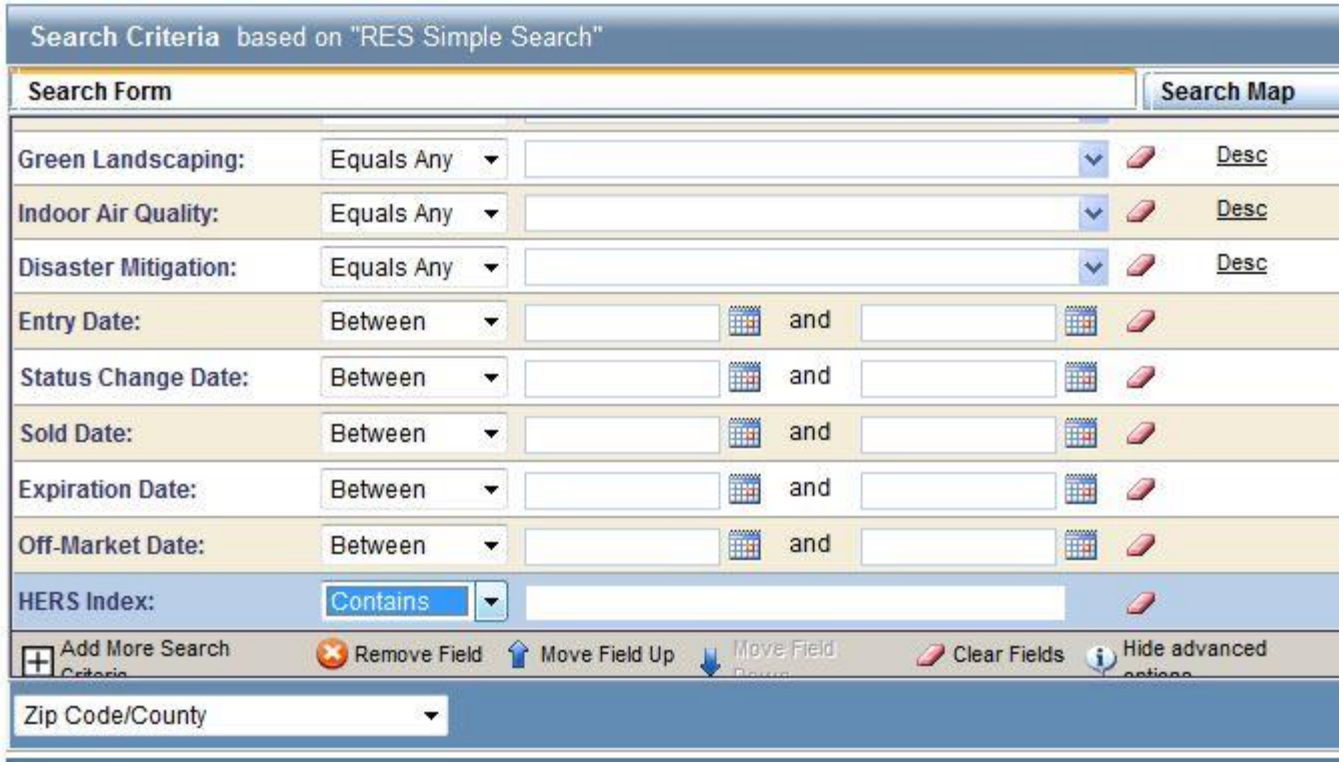
Source: pixabay.com

Measure of Value

- HERS Ratings are only a measure of value if the market understands them, and if the ratings are available for the market to use

Real Estate Market

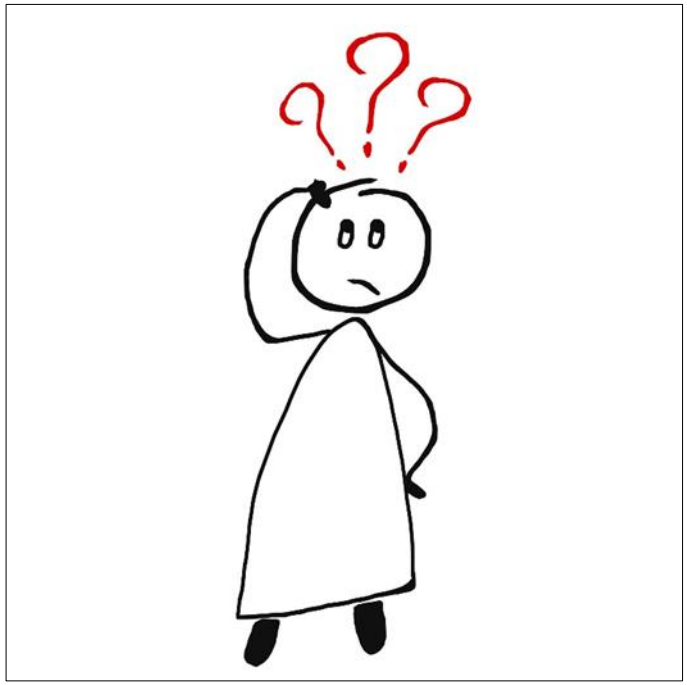
Tapping the real estate market starts with you



Listing Energy-Efficient Homes

Listing Energy-Efficient Homes

"This home has a 24 HERS."



Source: MLS

Listing Energy-Efficient Homes

"Remote wall constructions with 6" of additional rigid foam, super-insulated ceiling and ICF foundation all equal miserly fuel consumption. This home is considered super-insulated with a wall R-value of approximately 44."

Source: MLS

Listing Energy-Efficient Homes

- HERS: 55 is shown just above this narrative
- “This 4 bedroom/2 bath/2 car garage home has a very open floor plan with the kitchen overlooking the dining and family room combination. Kitchen conveniently located in the front of the home with 3 bedrooms on the right side of the home and the master is in the back with a large walk in closet with double sinks in the master bath. This home has it all.....granite, GE stainless kitchen appliances, appliances included....even the washer and dryer and blinds. Fenced back yard where Fido can roam. This home is convenient to I-75 and US 301. Great location between Tampa and Sarasota.”

Source: MLS

Listing Energy-Efficient Homes

- HERS: 54 is shown just above this narrative
- “READY NOW!! ENERGY STAR CERTIFIED NEW CONSTRUCTION HOME. This gorgeous home site features beautiful front yard landscaping. The open concept floor plan consists of an oversized great room with an adjacent flex space that’s ideal for a home office or den. The kitchen includes a large eat-at island that lends itself perfectly to meal prep, and an elegant appliance package, including a refrigerator, microwave, dishwasher and smooth-top electric range. Ample storage is provided by the 36-in. upper cabinets and a large pantry...”

Source: MLS

Listing Energy-Efficient Homes

- "16" INCH WALLS, 6 Stars ****** BRAND NEW QUALITY BUILT HOME. WHAT HEATING BILLS? THE NEW STANDARD IN BUILDING IS HERE."

Source: MLS

Listing Energy-Efficient Homes

Building Energy Code

International Energy Conservation Code (IECC) Changes from 2006 and forward	
IECC Year	Percent of Change
2006	Base Year
2009	+15%
2012	+30%
2015	+31%
Seems there is a trend here that cannot be ignored.	

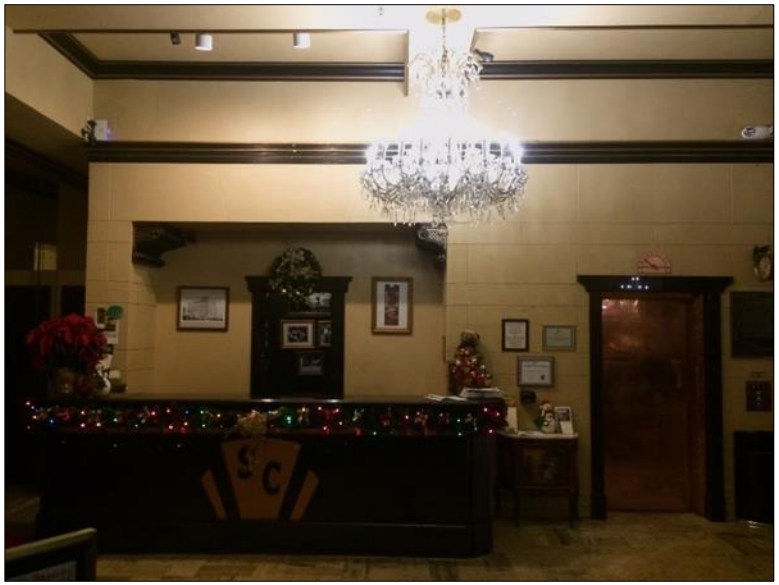
- 2012 IECC Code requires a Blower Door test and a visual inspection.

Market Participants Like Ratings

5-Star Hotel

Market Participants Like Ratings

2-Star Hotel



Market Participants Like Ratings

5-Star Restaurant

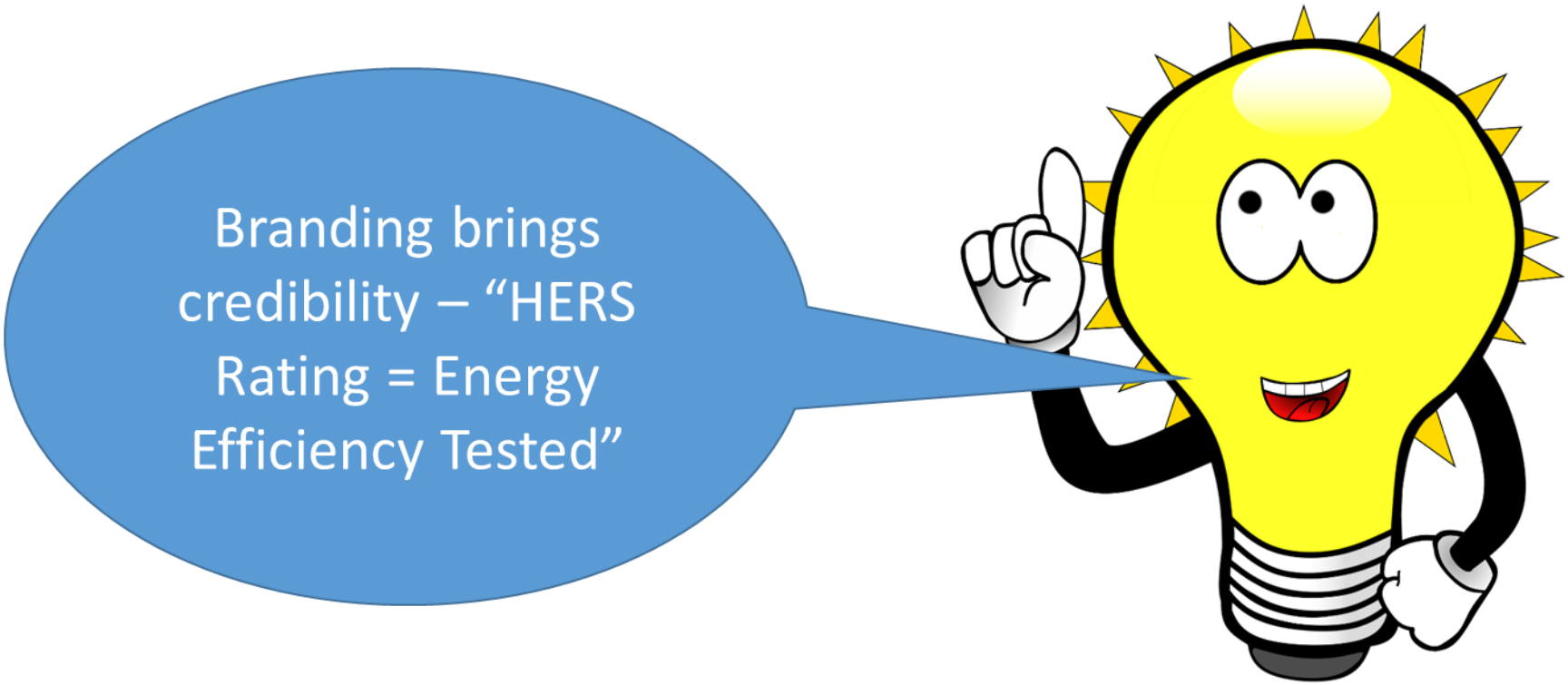
Listing Energy-Efficient Homes

How would you want a real estate agent to describe a home with a 20 HERS Rating?

A. Come see this energy efficient home
B. This home offers a 20 HERS Rating
C. Low utility bill in this 20 HERS Rated Home
D. This home has a 20 on the Home Energy Rating Scale with an estimated energy bill of $1,200 per year. See the attached HERS Report for construction details

You may be asking….

"Why should I care how real estate agents market homes?"



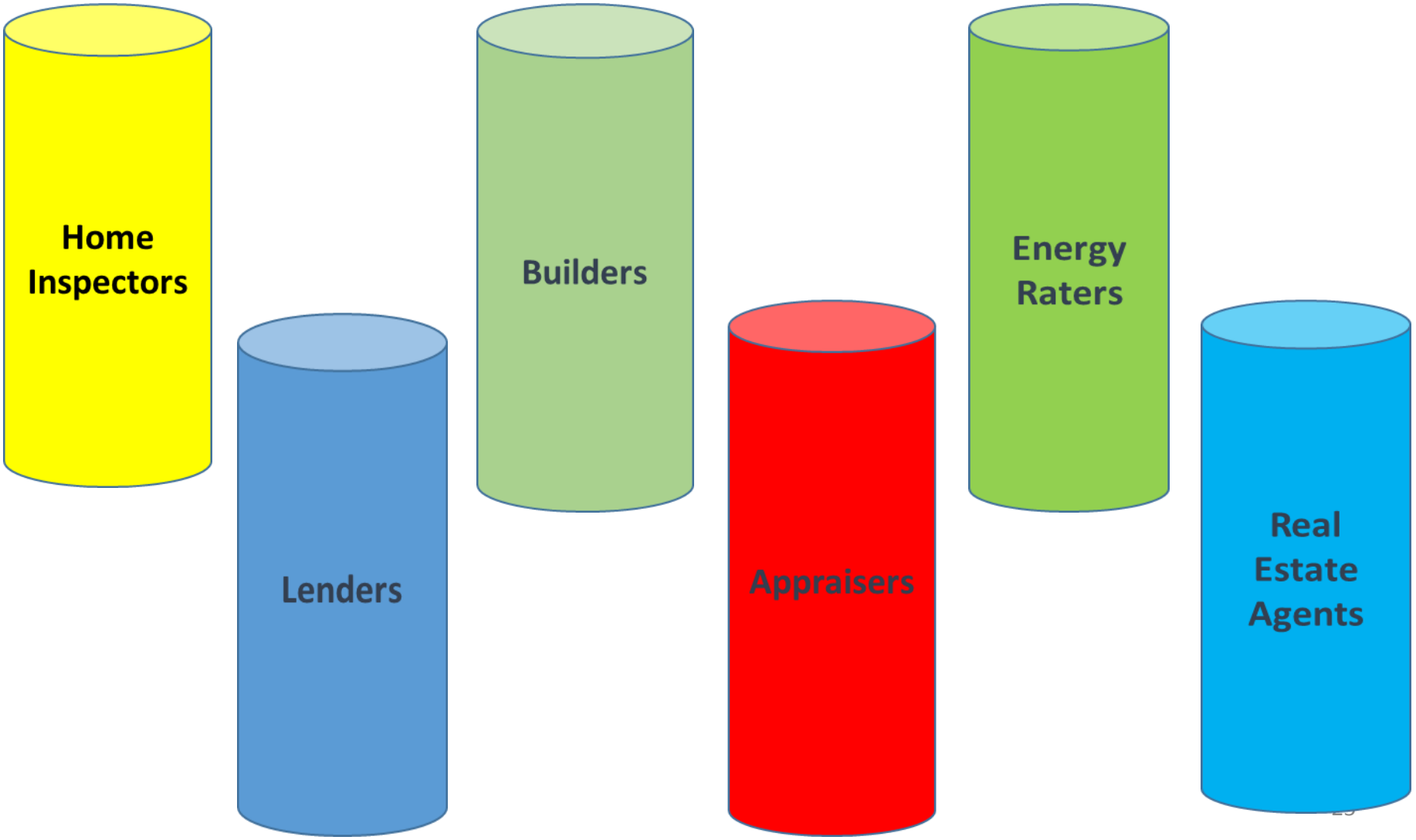
Listing Energy-Efficient Homes

- Would your agent know that the HERS Rating does consider occupancy?

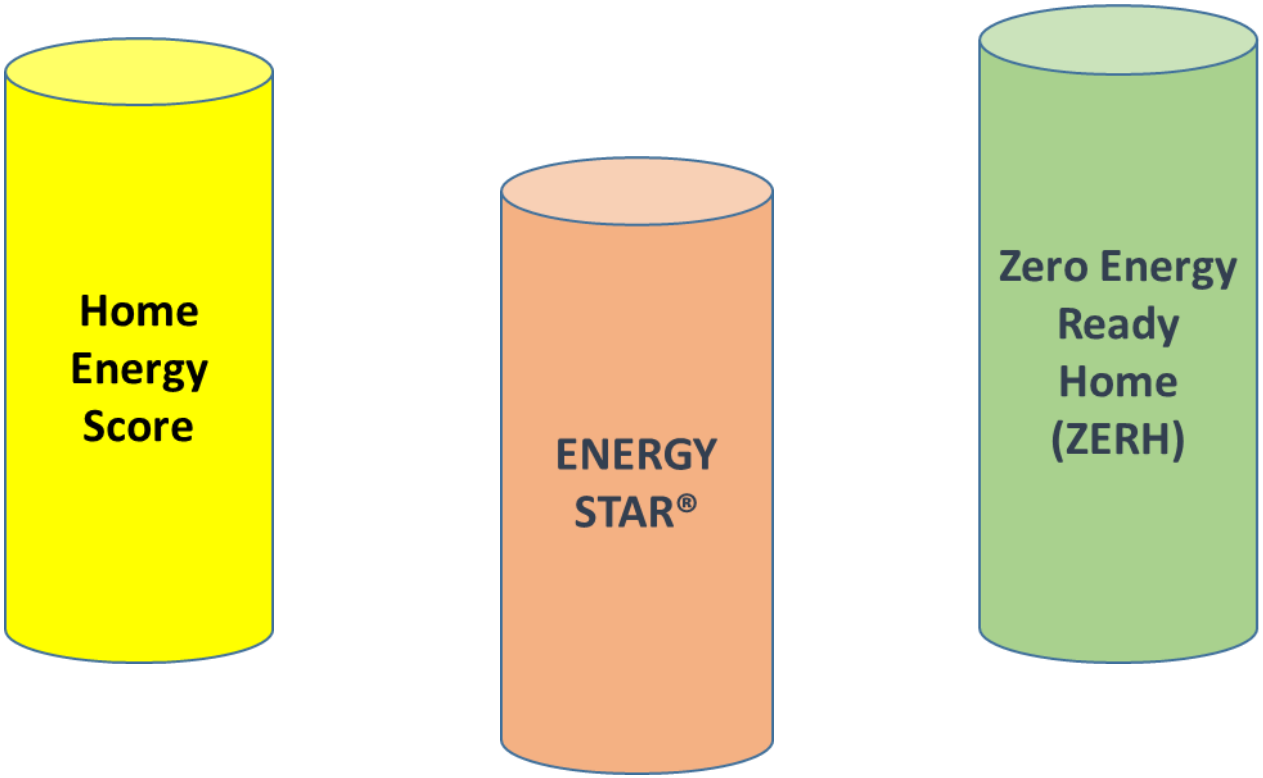
Listing Energy-Efficient Homes

- Make services known
- Sales meetings
- Guest speakers

Real Estate Silos



Government Silos



Government Silos

National Program Indicators

- 1,765,036 ENERY STAR Certified homes built to date
- 0 ENERGY STAR certified homes built 2017 to date
- 80,943 ENERY STAR certified homes built in 2016
- 3,329 ENERGY STAR for Homes Partners

https://www.energystar.gov/index.cfm?fuseaction=new_homes_partners.locator&s=mega

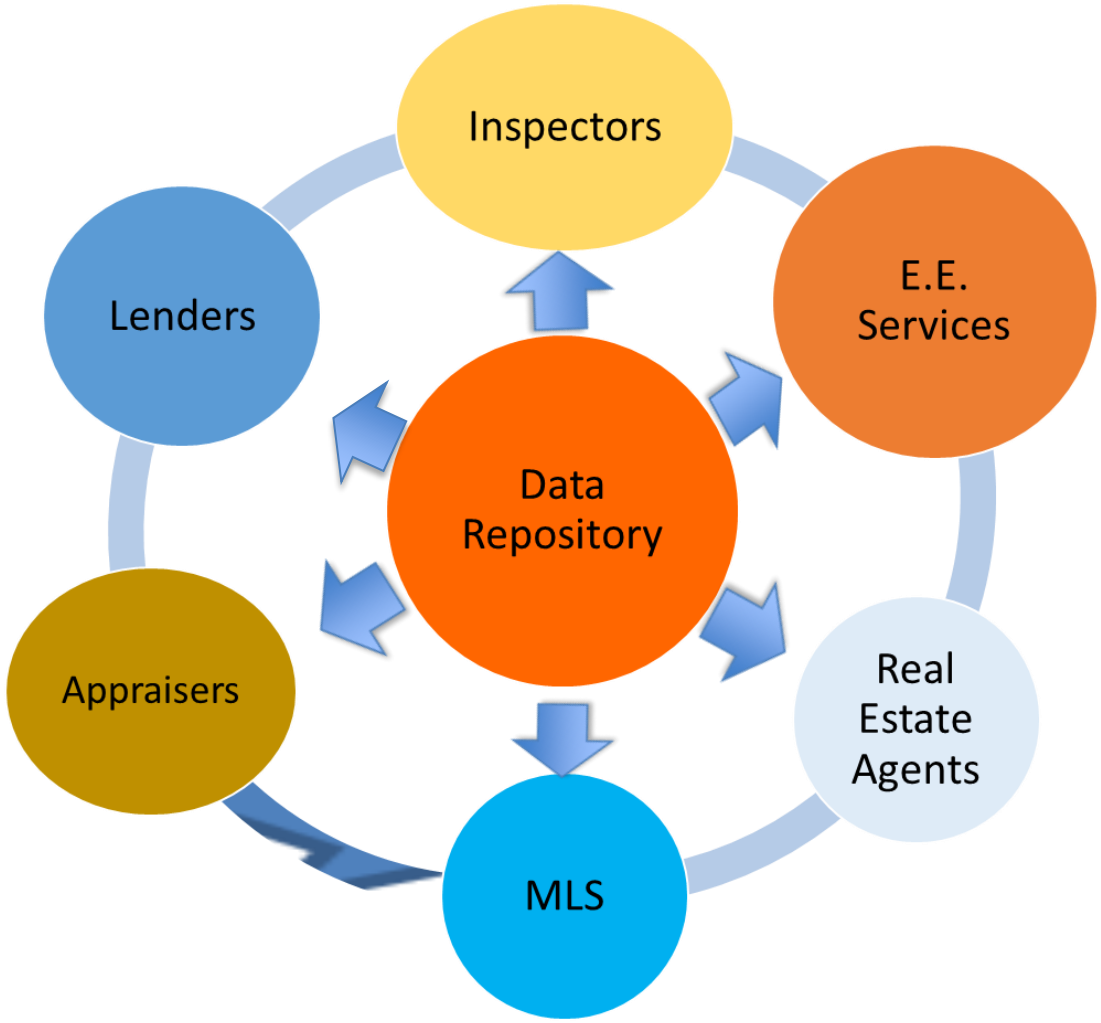
Energy Star

States with ENERGY STAR Certified Homes Market Share Greater Than National Average:

State	ENERGY STAR Certified Homes*	Market Share	Home Completions**
Arizona	10,801	48.94%	22,068
Maryland	3,929	35.76%	10,987
Nevada	3,633	35.24%	10,309
District of Columbia	69	27.36%	252
Delaware	776	18.51%	4,193
Texas	19,063	18.28%	104,301
North Carolina	5,911	15.35%	38,514
Colorado	2,666	13.46%	19,807
Iowa	921	12.54%	7,343
New Jersey	1,263	12.14%	10,404

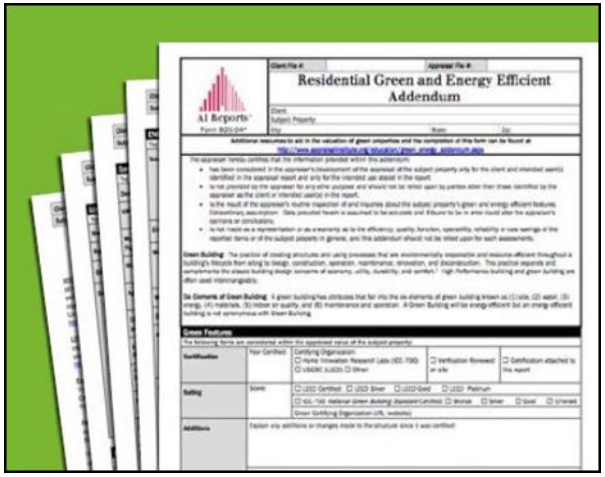
https://www.energystar.gov/index.cfm?fuseaction=qhmi.showhomesmarketindex

Data Flow Possibilities



Data Flow Possibilities

Imagine all the data flowing into or out of the AI Res. Green & E.E. Addendum



- We see the best person to complete the Addendum is you!

Completed by:_____ Title:_____ Date:_____

need to provide additional data, analysis and work product not called for in this form. The Appraisal Institute plays no role in completing the form and disclaims any responsibility for the data, analysis or any other work product provided by the individual appraiser(s).

AI Reports® AI-820.04 Residential Green and Energy Efficient Addendum © Appraisal Institute 2013, All Rights Reserved January 2013

Changes to Addendum

Changes are coming to the Addendum

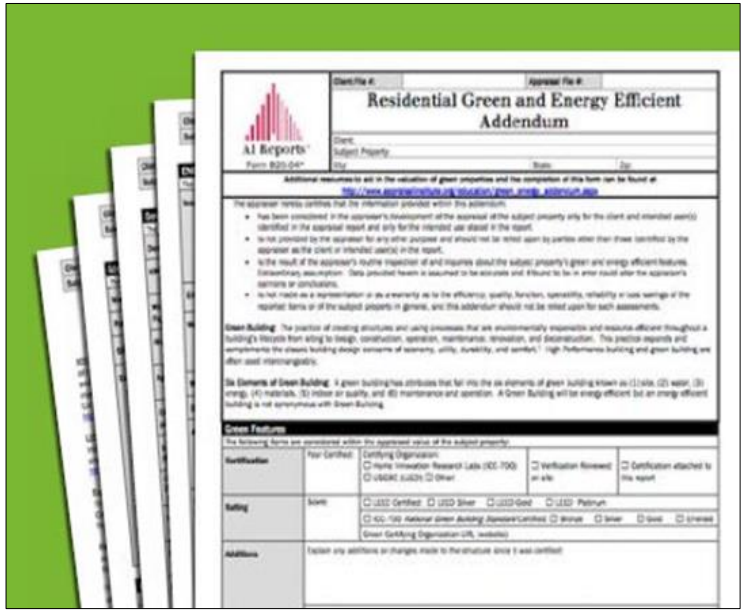
Sandy Adomatis, SRA,

LEED Green Associate

You are the first to hear & see!

http://www.appraisalinstitute.org/education/education-resources/green-building-resources/more-green-resources/

New Residential Green and Energy Efficient Addendum



The New and Improved AI Residential Green and Energy Efficient Addendum 820.05

http://www.appraisalinstitute.org/education/education-resources/green-building-resources/more-green-resources/

AI Residential Green and Energy Efficient Addendum

THIRD-PARTY VERIFICATIONS (See types defined in glossary).			
The following verified items are considered within the appraised value of the subject property:			
Green Certification Certifications attest that the home meets certain minimum thresholds.	Environmental Protection Agency (EPA):	☐ Indoor airPLUS ☐ WaterSense ☐ ENERGY STAR	
	Energy Department (DOE):	☐ Zero Energy Ready Home (ZERH)	
	Home Innovation Research Labs NGBS Home Remodel:	☐ Basement ☐ Small Addition ☐ Bathroom ☐ Kitchen ☐ Whole House	
	Home Innovation Research Labs NGBS New Home:	☐ Bronze ☐ Silver ☐ Gold ☐ Emerald	
	Living Building Challenge (LBC):	☐ Living Building Certified ☐ Petal Certification	
	Passivhaus Standard:	☐ PHI Low Energy ☐ EnerPhit ☐ Passive House	
	Passive House Institute US:	☐ PHIUS+ 2015	
	USGBC LEED:	☐ Certified ☐ Silver ☐ Gold ☐ Platinum	
	Other:		
	Date Verified: __/__/____	Green Certification Version: ____ Organization URL: _____	**ABOVE VALID ONLY IF CHECKED:** ☐ Verification reviewed on site ☐ Verification attached to this report

http://www.appraisalinstitute.org/education/education-resources/green-building-resources/more-green-resources/

AI Residential Green and Energy Efficient Addendum

Energy Label Labels disclose the state the home's energy assets.	RESNET's HERS Rating (0 to 150): _____ ☐ Sampling Rating ☐ Projected Rating ☐ Confirmed Rating	Estimated energy cost for this home: $____/year For code home: $____/year *Score below 100 indicates energy costs are expected to be lower than average local code home per square foot. HERS Index Report estimates energy cost based on number of bedrooms plus one. Only a "confirmed rating" is a diagnostic test.*	
	DOE's Home Energy Score Score (1 to 10): _____ ☐ Official Score ☐ Unofficial Score	Estimated energy cost for this home: $____/year For average home: $____/year *Score above five indicates energy costs are expected to be lower than average local home. Home Energy Score estimates energy cost based on state average energy rates and the home's energy features.*	
	Other Energy Score: Value (____ to ____): _____	Estimated energy cost: $____/year Describe energy label system:	
	Date Verified: __/__/____	Score or Rating Version: ____ Organization URL: ☐ www.resnet.us/ ☐ www.homeenergyscore.gov ☐ Other:_____	**ABOVE VALID ONLY IF CHECKED:** ☐ Verification reviewed on site ☐ Verification attached to this report

http://www.appraisalinstitute.org/education/education-resources/green-building-resources/more-green-resources/

AI Residential Green and Energy Efficient Addendum

Verified Energy Improvements Only include improvements with verified documentation.	Explain energy-related improvements: Can we add cost of upgrades here also?		
	Date Verified: __/__/____	Certificate of Efficiency Improvements Version: _____ Organization URL: ☐ Other: _____ ☐ energystar.gov/homeperformance	**ABOVE VALID ONLY IF CHECKED:** ☐ Verification reviewed on site ☐ Verification attached to this report

Completed by:→ → → → → → → → → → → → Title:→ → → → → → → → Date:→ → → →

http://www.appraisalinstitute.org/education/education-resources/green-building-resources/more-green-resources/

AI Residential Green and Energy Efficient Addendum

EFFICIENCY FEATURES (Water, Energy, and Environmental. See types defined in glossary).							
The following items are considered within the appraised value of the subject property:							
Insulation	☐ Fiberglass Blown-In ☐ Foam Insulation ☐ Cellulose ☐ Fiberglass Batt Insulation ☐ R-Value ____Wall ____Ceiling ☐ Other (Describe): _____						
Building Envelope	Envelope Tightness: _____ Unit: ☐ __CFM25 ☐__ CFM50 ☐__ ACH50 ☐__ ACH natural Instructions: Insert the rating as a number that could be 0.5 to 7ACH50 or higher. The lower the number, the more air tight the envelope. Building Codes for area show maximum Envelope Tightness allowed based on the climate zone. Not all areas have adopted a building code. http://bcap-energy.org/						
Windows	☐ ENERGY STAR®	☐ Low E	☐ High Impact	☐ Storm	☐ Double Pane ☐ Triple Pane	☐ Tinted	☐ Solar Shades
Day Lighting	☐ # Of Skylights: ____	☐ # Of Solar Tubes: ____	☐ Other (Describe): _____ (% Of lighting LEDs): _____				
ENERGY STAR® Appliances	ENERGY STAR®: ☐ Dishwasher ☐ Refrigerator ☐ Washer/Dryer ☐ Other: _____ Energy Source: ☐ Propane ☐ Electric ☐ Natural Gas ☐ Other: _____ **Note:** ENERGY STAR® appliances do not result in an ENERGY STAR® Home.						
Water Heater	☐ ENERGY STAR®	Size: _____ gallons ☐ Tankless	☐ Solar (next page)	☐ Heat Pump	☐ Coil		
HVAC & Related Equipment Describe in comments area.	☐ High Efficiency HVAC SEER: _____ Efficiency Rating: _____% AFUE* _____% *Annual Fuel-Utilization Efficiency	☐ Heat Pump Efficiency Rating: COP: _____ HSPF: _____ SEER: _____ EER: _____	Thermostat/Controllers? ☐ Yes ☐ No Programmable Thermostat? ☐ Yes ☐ No Auxiliary heat source? ☐ Yes ☐ No Radiant Floor Heat? ☐ Yes ☐ No Geothermal? ☐ Yes ☐ No Electric Vehicle Ready? (car charger) ☐ Yes ☐ No				

http://www.appraisalinstitute.org/education/education-resources/green-building-resources/more-green-resources/

AI Residential Green and Energy Efficient Addendum

Indoor Environmental Quality	☐ Energy (ERV) or Heat Recovery Ventilator (HRV) ☐ Other Measured Whole-House Ventilation Device (See glossary) ☐ Humidity Monitoring Device installed	☐ Non Toxic Pest Control ☐ Radon System: ☐ Active ☐ Passive
Water Efficiency	☐ Reclaimed Water System (Describe): _____ ☐ Greywater reuse system ☐ Water Saving Fixtures	☐ Rain Barrels Used in Irrigation Cistern size: _____ gallons Location of cistern: _____
Utility Costs	Annual Utility Cost: $ _____/year, based on: __/__/____ to __/__/____ (full year). Includes (check all that apply): ☐ Electric ☐ Heating ☐ Water ☐ Other: _____	# Of Occupants: _____
Comments Include source for information provided in this section.	If a property is built green but not formally certified, it still deserves proper description and analysis to value the features. The market analysis is of the structure's physical, economic, and locational attributes and not an analysis of its label alone. Provide additional information that illustrates how this property exceeds local building code. This document is intended for new construction or existing homes that have been retrofit to include higher energy or green features.	

http://www.appraisalinstitute.org/education/education-resources/green-building-resources/more-green-resources/

AI Residential Green and Energy Efficient Addendum

Solar Panels		
The following items are considered within the appraised value of the subject property:		
Solar Photovoltaic (Electric) System		
	Array #1	**Array #2 (if applicable)**
Type of Ownership	☐ Leased ☐ Owned ☐ Solar Loan ☐ UCC Filing ☐ Power Purchase Agreement (PPA)	☐ Leased ☐ Owned ☐ Solar Loan ☐ UCC Filing ☐ Power Purchase Agreement (PPA)
Panel Specifications	System Size: _____ kW (1kW = 1000 Watts) Age of Panels: _____ years Energy Production: _____ kWh Source of Energy Production Estimate: _____ Manufacturer: _____ Warranty on Panels: _____ years	System Size: _____ kW (1kW = 1000 Watts) Age of Panels: _____ years Energy Production: _____ kWh Source of Energy Production Estimate: _____ Manufacturer: _____ Warranty on Panels: _____ years
Array Placement Affects energy production.	Location (roof, ground, etc.): _____ Tilt / Slope: _____ Azimuth: _____ Orientation (direction panels face): _____	Location (roof, ground, etc.): _____ Tilt / Slope: _____ Azimuth: _____ Orientation (direction panels face): _____
Inverter Specifications	Number of Inverters per Array: _____ Age: _____ years Wattage: _____ watts Manufacturer: _____ Warranty Term: _____ years	Number of Inverters per Array: _____ Age: _____ years Wattage: _____ watts Manufacturer: _____ Warranty Term: _____ years

http://www.appraisalinstitute.org/education/education-resources/green-building-resources/more-green-resources/

AI Residential Green and Energy Efficient Addendum

Solar Thermal Water Heating System			
Type of System	Active: ☐Direct ☐Indirect Passive: ☐Integral collector ☐Thermo-syphon	**Storage Tank Size**	Gallons:_____
Collector Type	☐Flat-Plat ☐Integral ☐Evacuated-Tube Solar	**System Age**	Years:_____
Back-Up System	☐Conventional Water Heater ☐Tankless On Demand ☐Tankless Heat Pump	**Warranty Term**	
Solar Energy Factor (SEF)	*Rating ranges 1 to 11. Higher number is more efficient.	**Manufacturer**	
Comments Discuss incentives available for new panels, condition of current panels, and any maintenance issues. If leased, provide the lease terms.	Discuss source of information and define other renewable energy sources, such as wind, hydropower, biomass power, etc. **Note: Leased solar PV systems** and **Power Purchase Agreements** should not be considered in market value appraised values. These systems are personal property and usually taxed as personal property. If a system is lease or a PPA the terms must be provided to the appraiser for analysis. Appraisers must analyze the effect if any the terms of the lease or PPA have on the price buyers are willing to pay for the property. A free online tool and manual for valuing the energy production of the Solar PV System is available at www.pvvalue.com. PV Value® is a discounted cash flow (Income Capitalization Approach) to valuing energy produced. The solar PV system inputs on this form are necessary to use this program. Attending the "Residential and Commercial Valuation of Solar" course provided by the Appraisal Institute will provide a hands-on classroom experience in using this software. http://www.myappraisalinstitute.org/education/course_descrb/Default.aspx?prgrm_nbr=844&key_type=C		

http://www.appraisalinstitute.org/education/education-resources/green-building-resources/more-green-resources/

AI Residential Green and Energy Efficient Addendum

The objective of this Addendum is to standardize the communication of the high performing features of residential properties. Identifying the features not found on the 1004 form provides a basis for comparable selection and analysis of the features.

- Builders, contractors, homeowners, and third party verifiers are encouraged to complete this Addendum and present to appraisers, agents, lenders, and homeowners. Appraisers typically do not have sufficient information to complete this addendum without builder, contractor, or third party verifier documentation.
- Attach this completed document to the MLS listing to provide sufficient detail on sales and listings to assist buyers, appraisers, and real estate agents in understanding the high performance features of the property.
- Complete the pages that apply to the property appraised and provide to appraiser prior to the completion of an appraisal.
- Provide the Addendum to the lender at the time of loan application to assist them in understanding the property type so an appraiser with sufficient knowledge of this property type will be engaged to provide an appraisal to meet secondary mortgage market guidelines.

Completed by:_____ Title:_____ Date:_____

http://www.appraisalinstitute.org/education/education-resources/green-building-resources/more-green-resources/

Here is your chance to shine!

Case Study

- Builder has plans to build a house with a preliminary HERS Rating of 53
- Buyers needs mortgage
- Lender needs appraisal
- Appraiser hired

Case Study (cont.)

- Builder isn’t happy
- Lender defends appraiser
- Recognize HERS Score

Case Study (cont.)

Source: pixabay.com

Case Study (cont.)

You save the day! You have just the brochure for the builder to take action.

Appraised Value and Energy Efficiency: Getting it Right

While location, design, and price are a home buyer's main considerations, surveys show that buyers rank energy efficiency as one of the most desirable features, and importantly, when there is sufficient energy savings - one they're willing to pay more for. However, energy efficiency can be overlooked in the appraisal process for a variety of reasons, including a lack of access to quality data, underwriting impediments, and appraiser qualifications. Many appraisers may not be aware of the unique features of an energy efficient home. However, there are many specially-trained appraisers who are qualified to assess the value of these features that are often hidden behind the drywall. One way to know that a home is built energy efficiently is to know which energy code it was built to.

According to the U.S. Department of Energy, homes built to the 2012 or 2015 International Energy Conservation Code (IECC) are 15-16% more efficient than those built to the 2009 IECC or earlier. They will be more comfortable to live in and have lower monthly energy bills.

Fannie Mae, Freddie Mac and FHA guidelines require appraisers to consider the energy efficient features of the home, and if the market supports an adjustment in the appraised value, one must be made, but an average appraiser won't take this into account if they aren't aware of it.

Case Study (cont.)

New American Funding Loan #		**Date:**	
Borrower Name:		**Branch/OLA:**	
Property Address:			
Appraised Value:		**Date Ordered:**	

ADDITIONAL SALES/LISTINGS SUBMITTED FOR RECONSIDERATION (SEE BELOW).

Property #1:	
Property #2:	
Property #3:	
Property #4:	

CLIENT'S CONCERNS WITH THE ORIGINAL APPRAISAL (SEE BELOW).

Concern #1:	
Concern #2:	
Concern #3:	
Concern #4:	

Case Study (cont.)

Reconsideration of Value Request Form Instructions

- Complete loan information
- Provide the sales, listings, and/or concerns
- Verify all information
- Do not specify requested value

Appraisal Report

Improvement Section of the 1004 Appraisal Form

- Additional Features (special energy efficient items, etc.)
- “Energy Efficient Items are commensurate with the quality and age of the dwelling.”

Appraisal Report

Sales Comparison Section of the 1004 Appraisal Form	
Energy Efficient Items:	
Subject	Comparable Sales
None	None

Appraisal Report

Sales Comparison Section of the 1004 Appraisal Form

- Age of “Comparable Sales”
- 10 to 21 years old

Case Study (Cont.)

- HERS Score of 53
- Reviewing the appraisal
- Lender hired new appraiser

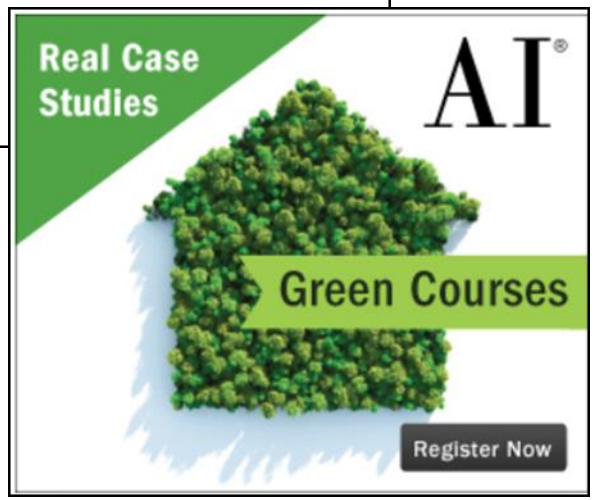
Appraisal Institute Courses

Valuation of Sustainable Buildings

Title	Hours	State Approval
Introduction to Green Buildings	8	State Approval
Case Studies in Appraising Green Residential Buildings	8	State Approval
Residential and Commercial Valuation of Solar	15	State Approval
Case Studies in Appraising Green Commercial Buildings	15	State Approval

FAQs
Program Registry – Residential
Program Registry – Commercial

Find Green Appraiser



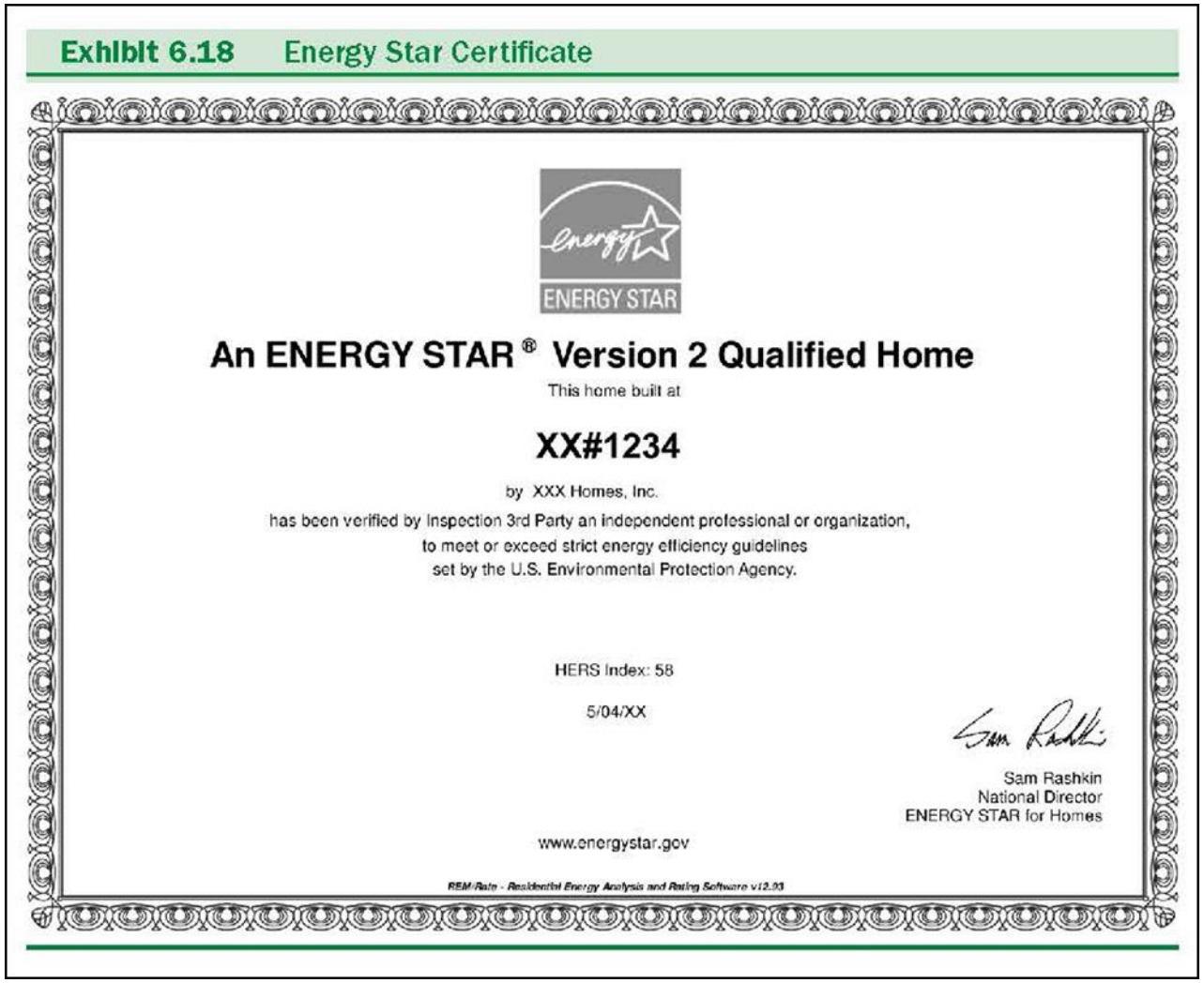
http://www.appraisalinstitute.org/education/your-career/professional-development-programs/

Value HERS Raters Bring to all Stakeholders in the Transaction

- Energy rating by a professional
- Appraiser cannot identify energy savings
- Raters are a great resource for appraisers and agents
- Raters can provide ENERGY STAR Verifications

Energy Star Certificate

Exhibit 6.18 Energy Star Certificate



ENERGY STAR

An ENERGY STAR® Version 2 Qualified Home

This home built at

XX#1234

by XXX Homes, Inc.

has been verified by Inspection 3rd Party an independent professional or organization,
to meet or exceed strict energy efficiency guidelines
set by the U.S. Environmental Protection Agency.

HERS Index: 58

5/04/XX

Sam Rashkin
National Director
ENERGY STAR for Homes

www.energystar.gov

REM/Rate - Residential Energy Analysis and Rating Software v12.03

From "Residential Green Valuation Tools," by Sandra K. Adomatis, SRA, Appraisal Institute, 2014, p. 105

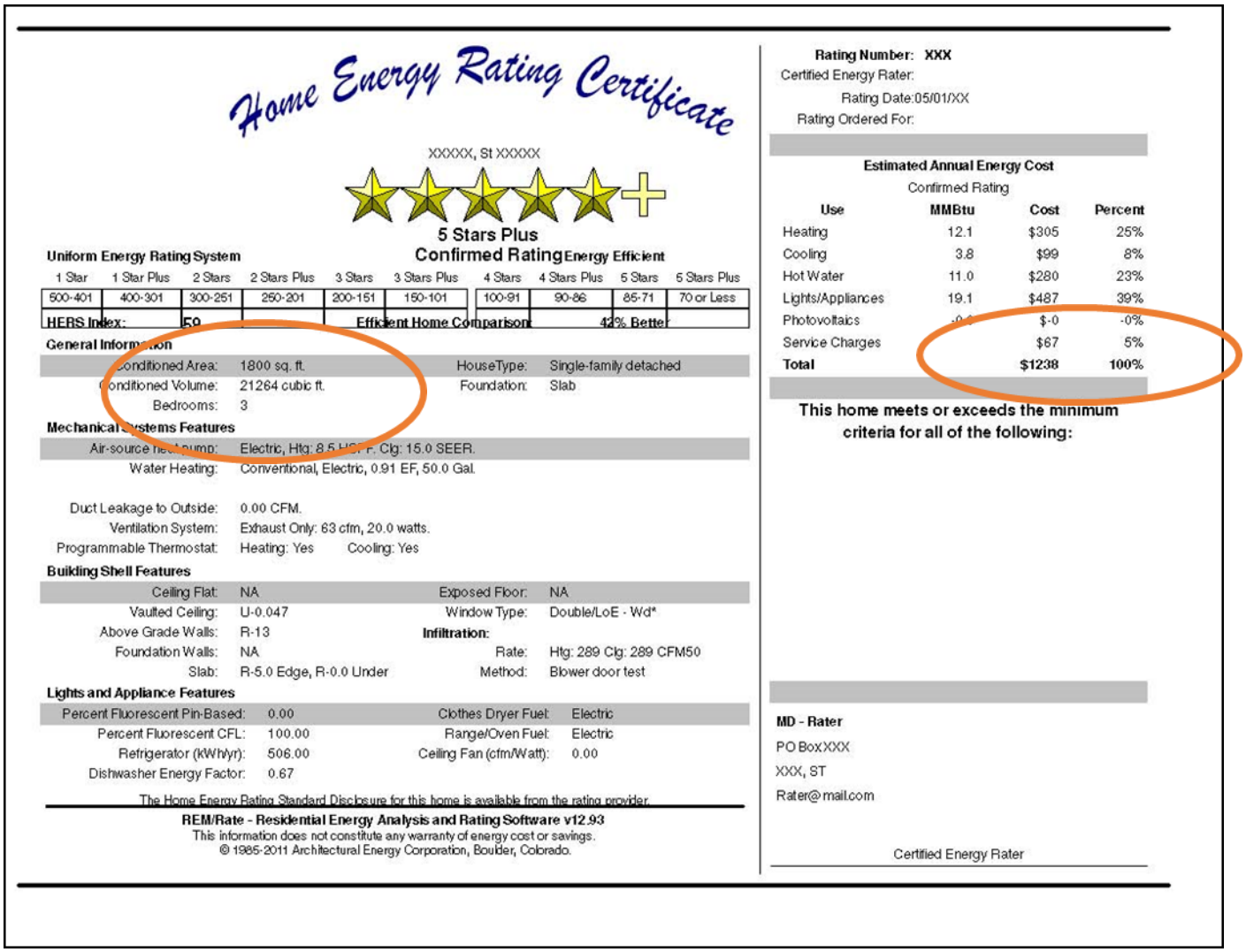
Infrared Photographs

Exhibit 6.22 Infrared Photographs

Source: Photographs appear courtesy of the EPA.

From "Residential Green Valuation Tools," by Sandra K. Adomatis, SRA, Appraisal Institute, 2014, p. 111

Home Energy Rating Certificate



Home Energy Rating Certificate

XXXXX, St XXXXX

5 Stars Plus

Confirmed Rating

Energy Efficient

Uniform Energy Rating System									
1 Star	1 Star Plus	2 Stars	2 Stars Plus	3 Stars	3 Stars Plus	4 Stars	4 Stars Plus	5 Stars	5 Stars Plus
500-401	400-301	300-251	250-201	200-151	150-101	100-91	90-86	85-71	70 or Less

HERS Index: 59 — Efficient Home Comparison — 42% Better

General Information

Conditioned Area:	1800 sq. ft.	HouseType:	Single-family detached
Conditioned Volume:	21264 cubic ft.	Foundation:	Slab
Bedrooms:	3		

Mechanical Systems Features

Air-source heat pump:	Electric, Htg: 8.5 HSPF, Clg: 15.0 SEER.
Water Heating:	Conventional, Electric, 0.91 EF, 50.0 Gal.
Duct Leakage to Outside:	0.00 CFM.
Ventilation System:	Exhaust Only: 63 cfm, 20.0 watts.
Programmable Thermostat:	Heating: Yes Cooling: Yes

Building Shell Features

Ceiling Flat:	NA	Exposed Floor:	NA
Vaulted Ceiling:	U-0.047	Window Type:	Double/LoE - Wd*
Above Grade Walls:	R-13	**Infiltration:**	
Foundation Walls:	NA	Rate:	Htg: 289 Clg: 289 CFM50
Slab:	R-5.0 Edge, R-0.0 Under	Method:	Blower door test

Lights and Appliance Features

Percent Fluorescent Pin-Based:	0.00	Clothes Dryer Fuel:	Electric
Percent Fluorescent CFL:	100.00	Range/Oven Fuel:	Electric
Refrigerator (kWh/yr):	506.00	Ceiling Fan (cfm/Watt):	0.00
Dishwasher Energy Factor:	0.67		

The Home Energy Rating Standard Disclosure for this home is available from the rating provider.

REM/Rate - Residential Energy Analysis and Rating Software v12.93

This information does not constitute any warranty of energy cost or savings.

© 1985-2011 Architectural Energy Corporation, Boulder, Colorado.

Rating Number: XXX

Certified Energy Rater:

Rating Date:05/01/XX

Rating Ordered For:

Estimated Annual Energy Cost

Confirmed Rating

Use	MMBtu	Cost	Percent
Heating	12.1	$305	25%
Cooling	3.8	$99	8%
Hot Water	11.0	$280	23%
Lights/Appliances	19.1	$487	39%
Photovoltaics	-0.1	$-0	-0%
Service Charges		$67	5%
Total		**$1238**	**100%**

This home meets or exceeds the minimum criteria for all of the following:

MD - Rater

PO BoxXXX

XXX, ST

Rater@mail.com

Certified Energy Rater

What Do YOU Put in the Electrical Box?

- HERS Index and/or Green Rating
- Envelope Rating
- Duct Rating
- Insulation Installation Rating
- Date Rated
- Name of Rater

Documents that must be provided to appraiser

- Complete HERS Report
- Green Rating and worksheets
- Complete cost breakdown
  - Highlight cost of additional energy or green features
- Sales data on similar properties
- Completed AI Residential Green and Energy Efficient Addendum

Jim Amorin, MAI, SRA, AI-GRS

Handout

Appraised Value & Energy Efficiency: Getting it Right

Appraisal Institute

BCAP

NAHB

Handout – Tool with Power Tips

http://bcap-energy.org/wp-content/uploads/2015/11/Appraisal_Guidance_2pager_2016.pdf

Point Out Solution to Builders Problems

A ready-made solution exists.

Fannie Mae, Freddie Mac and FHA guidelines require lenders to choose competent appraisers who have the requisite knowledge required to perform a professional quality appraisal for the specific geographic location and particular property type.

Appraisers who are specially trained on energy efficient / high-performing homes will analyze market trends relating to special energy-efficiency features. You can access a list of qualified appraisers at the Valuation of Sustainable Buildings Professional Development Program Registry.

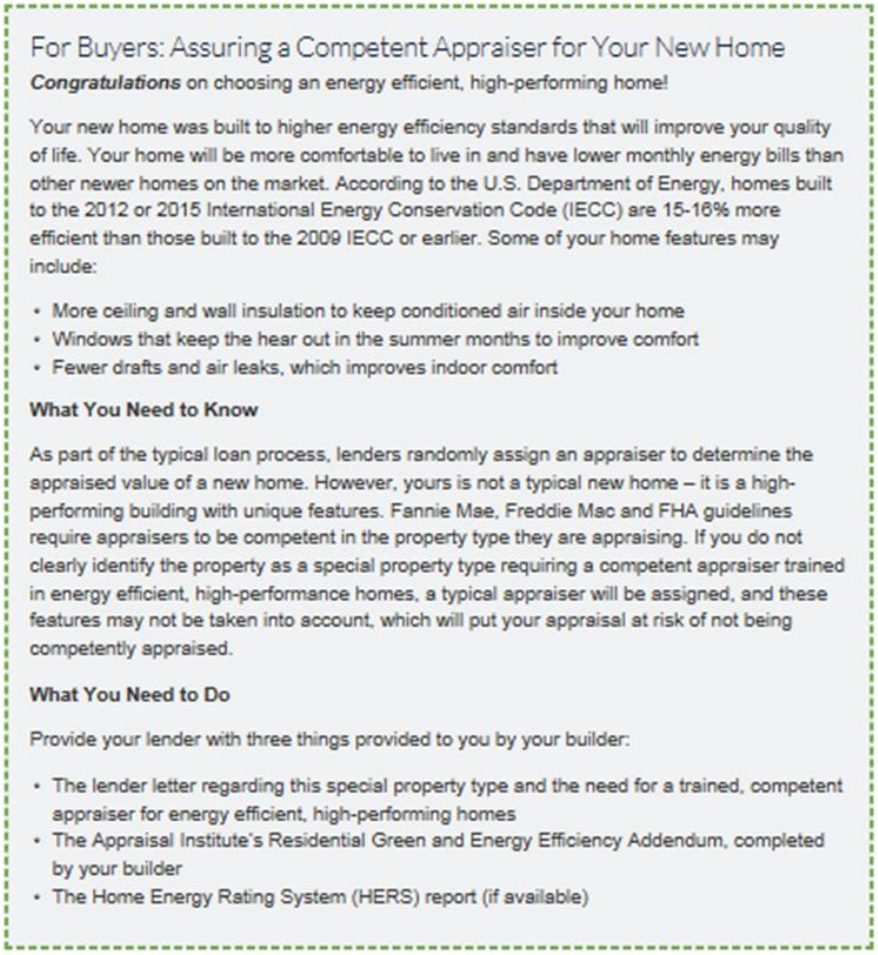
What can builders do?

Builders can help the buyer assure a competent appraiser is selected by doing these things:

1. Complete and provide buyers with the Residential Green and Energy Efficient Addendum form.
2. Provide a copy of a complete Home Energy Rating System (HERS) report (if available).
3. Prepare the buyer to notify the lender that they require a competent appraiser for this special type of construction; add your logo and provide a copy of the directions on the next page.
4. Add your logo, the property address, and contact info to the attached letter. Direct your buyer to give the letter (along with 1 and 2 above) to their lender.

http://bcap-energy.org/wp content/uploads/2015/11/Appraisal_Guidance_2pager_2016.pdf

For buyers



For Buyers: Assuring a Competent Appraiser for Your New Home

Congratulations on choosing an energy efficient, high-performing home!

Your new home was built to higher energy efficiency standards that will improve your quality of life. Your home will be more comfortable to live in and have lower monthly energy bills than other newer homes on the market. According to the U.S. Department of Energy, homes built to the 2012 or 2015 International Energy Conservation Code (IECC) are 15-16% more efficient than those built to the 2009 IECC or earlier. Some of your home features may include:

- More ceiling and wall insulation to keep conditioned air inside your home
- Windows that keep the hear out in the summer months to improve comfort
- Fewer drafts and air leaks, which improves indoor comfort

What You Need to Know

As part of the typical loan process, lenders randomly assign an appraiser to determine the appraised value of a new home. However, yours is not a typical new home – it is a high-performing building with unique features. Fannie Mae, Freddie Mac and FHA guidelines require appraisers to be competent in the property type they are appraising. If you do not clearly identify the property as a special property type requiring a competent appraiser trained in energy efficient, high-performance homes, a typical appraiser will be assigned, and these features may not be taken into account, which will put your appraisal at risk of not being competently appraised.

What You Need to Do

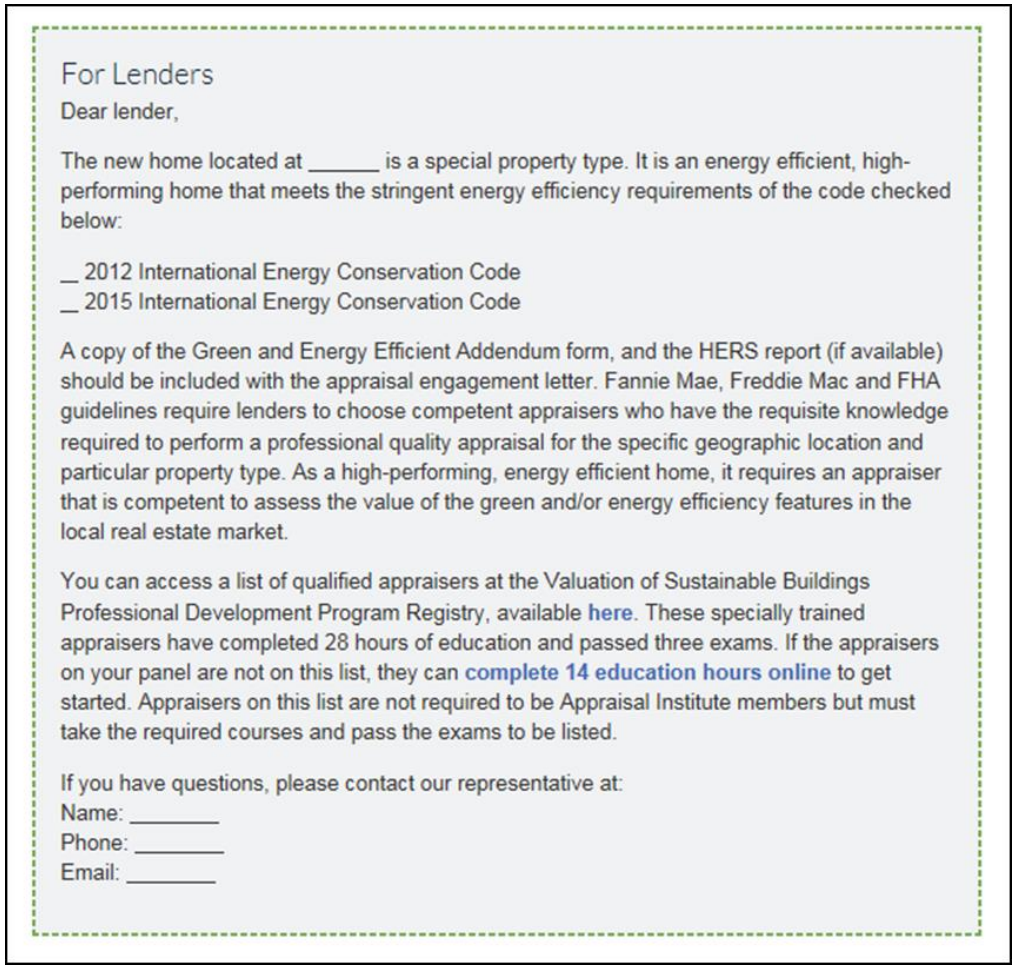
Provide your lender with three things provided to you by your builder:

- The lender letter regarding this special property type and the need for a trained, competent appraiser for energy efficient, high-performing homes
- The Appraisal Institute's Residential Green and Energy Efficiency Addendum, completed by your builder
- The Home Energy Rating System (HERS) report (if available)

For buyers: Assuring a competent appraiser for your new home

http://bcap-energy.org/appraised-value-and-energy-efficiency-getting-it-right/

For Lenders



For Lenders

Dear lender,

The new home located at _____ is a special property type. It is an energy efficient, high-performing home that meets the stringent energy efficiency requirements of the code checked below:

__ 2012 International Energy Conservation Code
__ 2015 International Energy Conservation Code

A copy of the Green and Energy Efficient Addendum form, and the HERS report (if available) should be included with the appraisal engagement letter. Fannie Mae, Freddie Mac and FHA guidelines require lenders to choose competent appraisers who have the requisite knowledge required to perform a professional quality appraisal for the specific geographic location and particular property type. As a high-performing, energy efficient home, it requires an appraiser that is competent to assess the value of the green and/or energy efficiency features in the local real estate market.

You can access a list of qualified appraisers at the Valuation of Sustainable Buildings Professional Development Program Registry, available here. These specially trained appraisers have completed 28 hours of education and passed three exams. If the appraisers on your panel are not on this list, they can complete 14 education hours online to get started. Appraisers on this list are not required to be Appraisal Institute members but must take the required courses and pass the exams to be listed.

If you have questions, please contact our representative at:
Name: _____
Phone: _____
Email: _____

2nd page of handout

Encourage builder to use this lender letter with every loan application

http://bcap-energy.org/appraised-value-and-energy-efficiency-getting-it-right/

Key Take-Aways

- Do your part in educating the real estate professionals – give them resources
- Communicate with builders about the importance of the full HERS Report in the transaction and especially the appraisal
- Promote opening the RESNET fields for ENERGY STAR Homes to be identified and auto populating the MLS and Addendum

Questions?

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Sandra K. Adomatis, SRA,
LEED Green Assoc.
Adomatis@Hotmail.com

Appraisal Institute®

Professionals Providing Real Estate Solutions

KNOWLEDGE. | EXPERIENCE. | INTEGRITY.

RESNET Conference

Jim Amorin, MAI, SRA, AI-GRS
Sandy Adomatis, SRA, LEED Green Associate

3 Secrets to Tap the Real Estate Market with Energy Ratings

Feb. 28, 2017