"From Listing to Closing: The Role of HERS in the Real Estate Transaction Process"

February 26, 2019

10:30 am to 12:00 pm

Bayside B



From Listing to Closing: The Role of HERS In the Real Estate Transaction Process.

Tuesday, February 26, 2019 - 10:30 AM-12:00 PM, Bayside B

Presenters: Ryan Meres Sandra Adomatis

This session will walk attendees through the real estate transaction process from listing to closing and illustrate the key steps impacted by the HERS Index Score. Attendees will also hear about what RESNET is doing to drive HERS Index scores into the real estate transaction, including the newly launched API for MLS data aggregators and the Appraiser Portal. Builders, raters and real estate professionals will walk away from this session with a clear understanding of how the HERS Index fits into the real estate transaction and how they can work in their local market to drive change.

Today's Speakers



Ryan Meres, Program Director, RESNET



Sandy Adomatis, SRA, LEED Green Associate, NAR

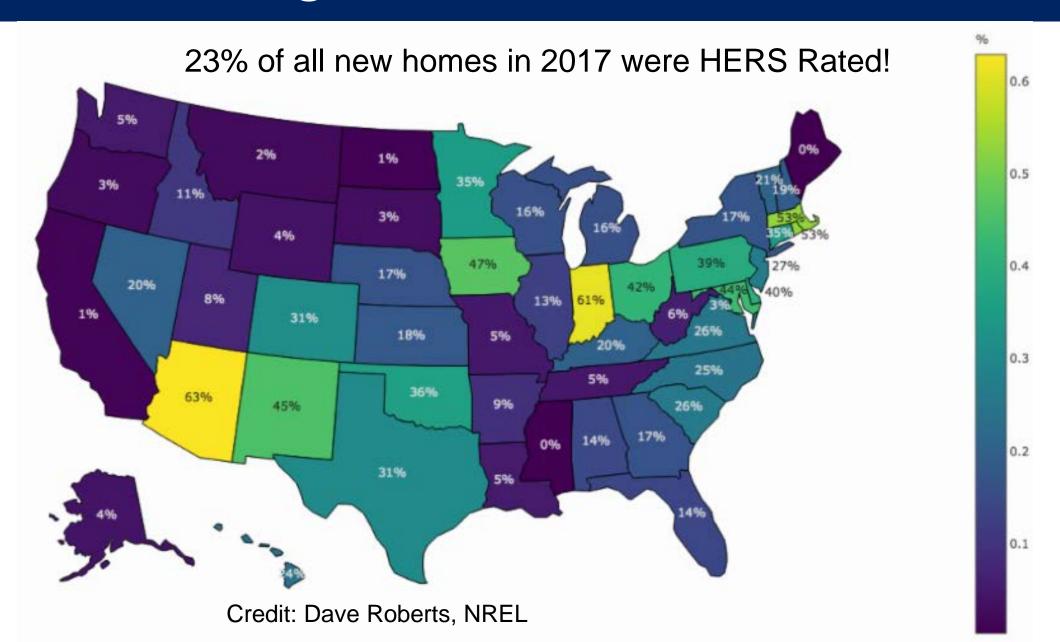
Green Designee

CEO - Adomatis Appraisal Services

Popularity of HERS



Percentage of New Homes HERS Rated



HERS Ratings in Top 20 Construction Markets

	HERS Index	Number of HERS	New Construction	
City*	(Average)	Ratings	Starts:	Percentage of HERS
Phoenix (5)	61	15,042	20,551	73.19%
San Antonio (8)	65	5,308	7,513	70.65%
Denver (16)	56	6,435	10,937	58.84%
Raleigh (13)	66	5,599	10,785	51.91%
Houston (1)	63	15,884	36,601	43.40%
Dallas (2)	61	14,609	34,210	42.70%
Austin (6)	65	5,214	15,206	34.29%
Charlotte (7)	67	4,681	13,974	33.50%
Las Vegas (14)	60	3,093	9,796	31.57%
Orlando (9)	56	4,424	14,766	29.96%
Tampa (15)	56	3,467	12,170	28.49%
Washington, D.C.				
(4)	57	3,446	13,968	24.67%
Jacksonville (20)	57	2,043	9,829	20.79%
New York (10)	55	1,579	10,549	14.97%
Philadelphia (19)	55	947	7,278	13.01%
Atlanta (3)	67	2,550	24,849	10.26%
Miami (18)	62	170	6,642	2.56%
Seattle (11)	58	124	9,943	1.25%

Top 25 Cities for Ratings in 2018

City	State	Number of Ratings	HERS Index (Average)
San Antonio	Texas	3,549	64
Mesa	Arizona	2,218	58
Phoenix	Arizona	2,199	58
Katy	Texas	2,188	61
Las Vegas	Nevada	2,099	58
Houston	Texas	2,098	62
Richmond	Texas	1,835	62
Buckeye	Arizona	1,833	58
Aurora	Colorado	1,635	57
Henderson	Nevada	1,588	58
Denver	Colorado	1,507	55
Austin	Texas	1,476	63

	North		
Charlotte	Carolina	1,436	63
Orlando	Florida	1,388	57
Gilbert	Arizona	1,387	60
Cypress	Texas	1,328	61
Peoria	Arizona	1,302	60
Queen Creek	Arizona	1,269	59
Spring	Texas	1,263	62
Winter			
Garden	Florida	1,238	58
McKinney	Texas	1,166	60
Kissimmee	Florida	1,165	57
Tucson	Arizona	1,087	59
Riverview	Florida	1,068	57
Frisco	Texas	1,034	60

Zillow Housing Trends Survey

Wants and Needs



71% Neighborhood Safety



67% Initial Price Range



62% # of Bedrooms



62% Air Conditioning



53% # of Bathrooms



48% Preferred Kitchen Style

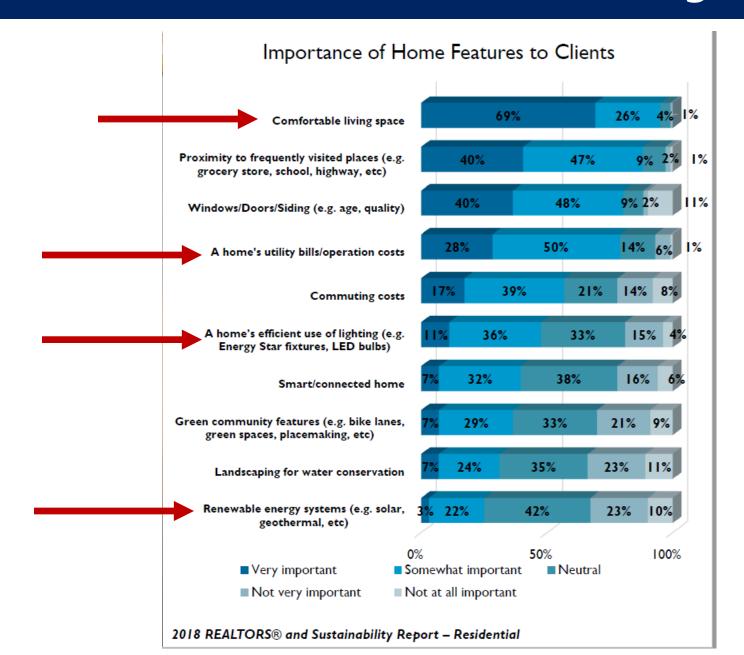


48% Energy Efficiency



47% Preferred Finishes

What Consumers are Wanting



Energy Scores in Real Estate Listings





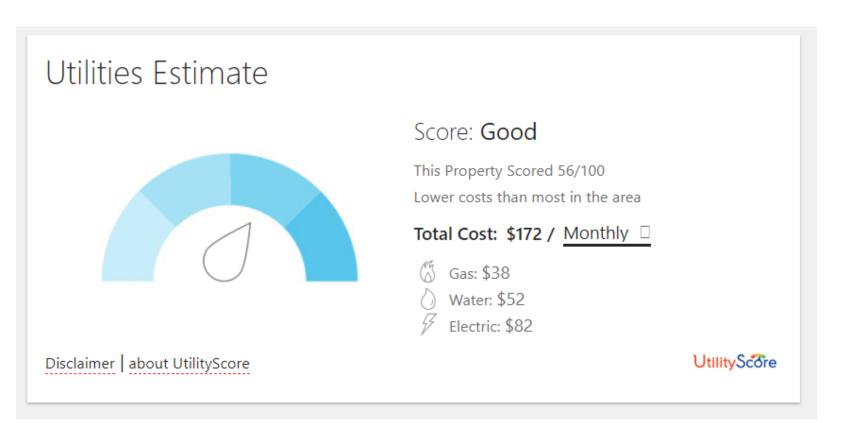
<u>realestate.com</u> is working with <u>UtilityScore</u> to provide a score and estimated energy costs for homes listed on its site.

Redfin is working with <u>Tendril</u> to provide an Energy Score for all homes on its platform, not just those listed for sale.

Up to 110 million homes are now covered on these two platforms.

Automated Energy Models: Not Third Party Verified!

Energy Scores in Real Estate Listings



Estimate accounts for:

- Home size,
- Home age,
- Heating type,
- Cooling type,
- Local climate,
- Other home characteristics (if known), including: renewable energy, insulation levels, pool or spa

HERS Data in the Real Estate Transaction



Agents

state

ш

Real

Need access to data to include in the listing Market a

 Market a home's EE and green features



enders/Underwriters

 Need data to support potentially higher loan value



Appraisers

- Need data to identify comparables and justify value.
- Need more data in the MLS to more easily compare EE features

Getting HERS Data into Real Estate Listings

HERS Data API-progress

API= Application Programming Interface

Summer-2018: API Fields Finalized for compatibility with RESO

Fall-2018: API development completed

Winter-2018: API testing completed

January-2019: few programming tweaks to improve speed of API

SOON: full roll-out to data providers

HERS Data API Fields

Auto-populate HERS Index scores into real estate listings!

RESO fields and corresponding RESNET Registry fields:

Green Verification Type: (HERS Rating)

Green Verification Year: (Date of Rating)

Green Verification Metric: (HERS Index Score)

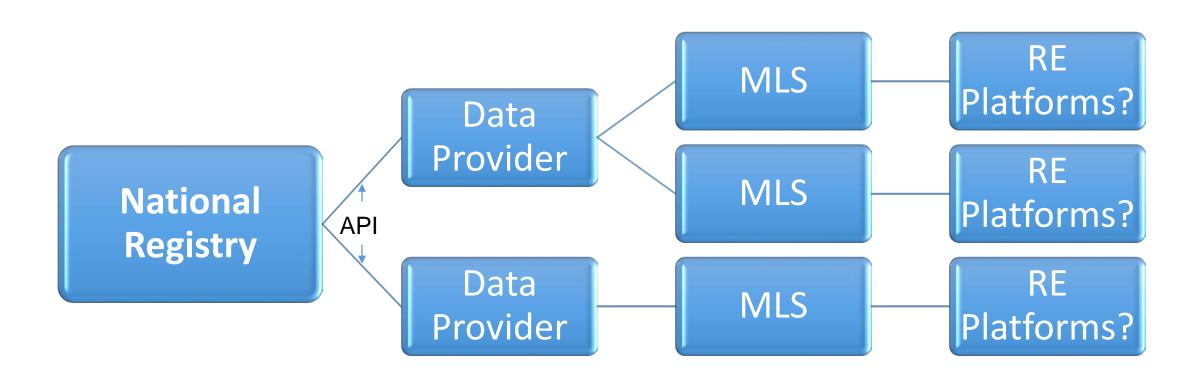
Green Verification Status: (Confirmed/Sampled/Threshold Rating)

Green Verification Source: (RESNET Registry)

Green Verification URL: (Direct link to the home's rating info on RESNET's

Public Access to the Registry: http://www.resnet.us/public-access-to-resnet-national-registry).

Getting HERS Data to MLS and RE Platforms



Zillow Listing Provided by MLS

Similar Homes for Sale





See all similar listings

Listing Provided by

Wendy Nicholson, Curasi Realty Inc., (845) 457-9174, Source: Hudson Gateway MLS



Report problem with listing

Getting HERS Scores into MLSs

GOAL: Auto-populate HERS Index

Scores in MLSs

MLS Needs to Have Green Fields and Want HERS Scores Work Through
MLS's Data
Provider or a
Third Party
Provider

Get Data
Sharing
Agreements in
Place

Connect
RESNET
Registry with
the Data
Provider

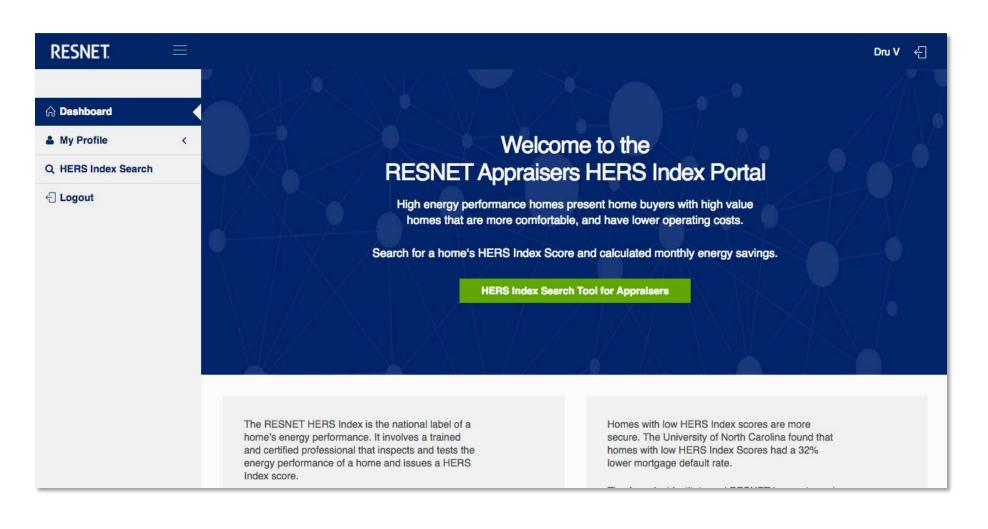
Need to
Educate
REALTORS and
Real Estate
Agents

Up to the Real Estate Agent to choose to include the HERS data.

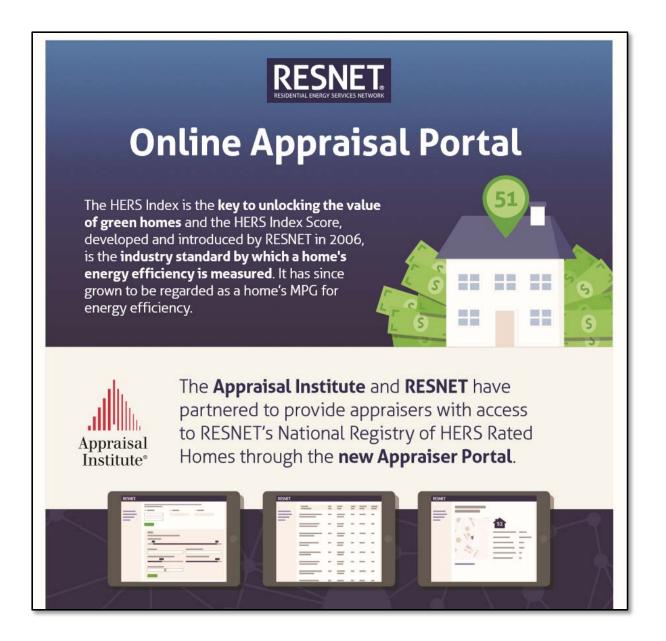
Getting Appraisers to Use HERS Data

The Appraiser Portal

Over 3,500 appraisers with access to the portal!



Infographic-Using the Portal



Accessing the Portal allows appraisers to begin to understand and value the energy efficiency of HERS-rated homes in their market including:



HERS Index scores



Estimated annual energy costs

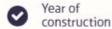


Energy cost savings

Appraisers can search for HERS-rated homes in their area by city and state, zip code or address. Search results can be filtered by:



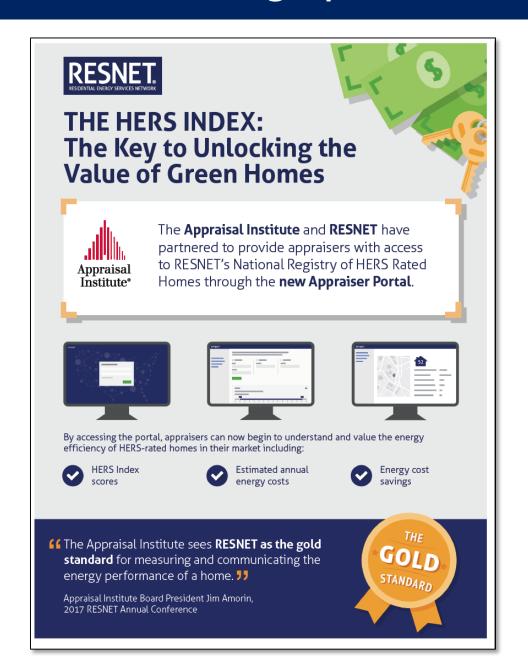




HERS rating company



Infographic-Unlocking the Value of Green





Updated Website



Appraiser link on homepage of website.

Updated Website



Appraiser Resource Page:

- Infographics
- Portal Launch Webinar
- Access the Portal
- Videos
- Verify HERS Rater Cert.

Sandy Adomatis, SRA, LEED Green Associate, NAR Green

The RESNET Appraiser Portal and Marketing

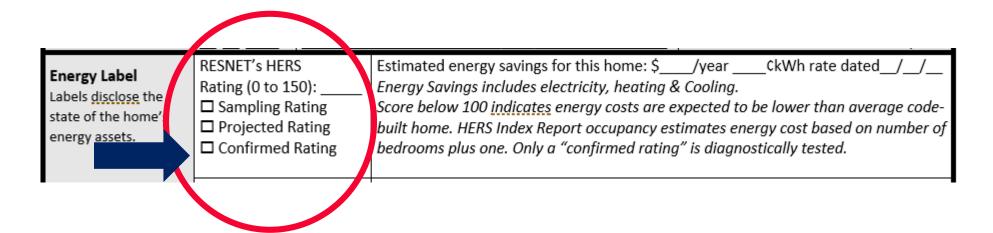
Secured Portal URL: https://portal.resnet.us/

The RESNET Appraiser Portal is a BIG Deal!



RESNET's Appraisal Portal Includes Confirmed Ratings Only

Ŧ								
1	.l.	Client File #:		Appraisal File #:				
		Residential Green and Energy Efficient Addendum						
-	AI Danasta®	Client:						
-	AI Reports®	Subject Property:						
1	Form 820.05*	City:		State:	Zip:			
ſ	Additional resources to aid in the valuation of green properties and the completion of this form can be found at http://www.appraisalinstitute.org/education/green_energy_addendum.aspx							
ŀ								



Differences in HERS Ratings

	Sampling	Projected	Confirmed
Random Testing of a number of houses built by same builder.	X		
Rating based on plans and specifications – preliminary – not tested		X	
Diagnostically tested with blower door and duct blaster			X

A Sampling or Projected rating requires an extraordinary assumption in an appraisal report. Builders should provide a Projected Rating for mortgage lending work to allow appraisers to understand the energy efficiency. A Confirmed Rating cannot be done until the house is completed.

Projected or Sample HERS deserves an "Extraordinary Assumption"

Indicated Value by: Sales Comparison Approach \$ 360,000 Cost Approach (if developed) \$ 365,100 Income Approach (if developed) \$								
The income approach is not applicable in this size and quality housing. The cost approach is relevant in proposed construction and								
has strong support for the cost new and site value. The sales comparison approach has some weakness due to the limited number of								
two-story house sales; however, the additional two-story sales and listings in the addendum add credibility to the sales analyzed.								
two-story house sales; however, the additional two-story sales and listings in the addendum add credibility to the sales analyzed. This appraisal is made "as is," X subject to completion per plans and specifications on the basis of a hypothetical condition that the improvements have been completed, subject to the following repairs or alterations on the basis of a hypothetical condition that the repairs or alterations have been completed, or subject to the following required								
subject to the following repairs or alterations on the basis of a hypothetical condition that the repairs or alterations have been completed, or subject to the following required								
inspection based on the extraordinary assumption that the condition or deficiency does not require alteration or repair: Appraised value is subject to completion per								
plans & specifications & Projected HERS Index final rating as envisioned in this report. See Addendum for more details.								
Based on a complete visual inspection of the interior d exterior areas of the subject property, defined scope of work, statement of assumptions and limiting								
conditions, and appraiser's certification, my (our of the market value, as defined, of the real property that is the subject of this report is \$ 360,000								
as of 09/04/2014date of inspection and the effective date of this appraisal.								
reddie Mac Form 70 March 2005 UAD Version 9/2011 Produced using ACI software, 800.234.8727 www.aciweb.com Page 2 of 6 Fannie Mae Form 1004 March 2005								



Projected Rating: Based on Plans, Field Confirmation Required

Uniform E	Energy Rating	System						Energy	Efficient	
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 Inc	lex:	75		Effic	ient Home Cor	mţ	parison:	25	% Better	

General Information									
Conditioned Area:	2366 sq. ft.	HouseType:	Single-family detached						
Conditioned Volume:	22270 cubic ft.	Foundation:	Slab						
Redrooms:	4								

Mechanical Systems Features

Air-source heat pump: Electric, Htg: 8.2 HSPF. Clg: 14.0 SEER.

Water Heating: Conventional, Natural gas, 0.60 EF, 50.0 Gal.

Duct Leakage to Outside: 141.00 CFM25.

Ventilation System: None

Programmable Thermostat: Heating: No Cooling: No

Foundation Walts: NA Method: Blower door test

Lights and Appliance Features

Percent Interior Lighting: 75.00 Range/Oven Fuel: Natural gas

Percent Garage Lighting: 100.00 Cidnes Dyer Fuel: Electric

teerit Garage Eigning. 100.00 Coolines Dryer Fuel. Electric Refrigerator (kWhyr): 691.00 Coling Fan (cfm/Watt): 0.00

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

REM/Rate - Residential Energy Analysis and Rating Software v15.4.1

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

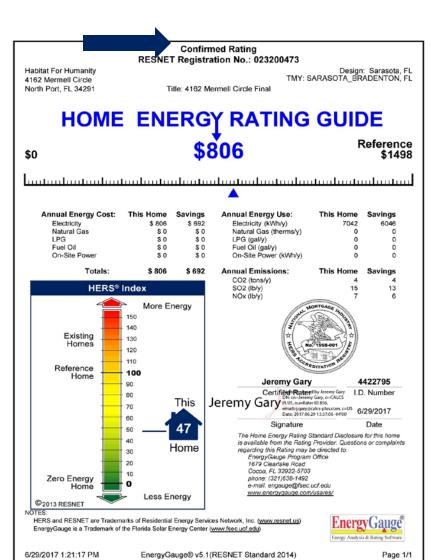
© 1985-2017 Noresco, Boulder, Colorado.

Registry ID:
Rating Number: Simulated Performance Analysis
Certified Energy Rater:
Rating Date: 2017-10-02
Rating Ordered For:

Estim	ated Annual Ene Projected Rating	0,	
Use	MMBtu	Cost	Percent
Heating	12.4	\$324	21%
Cooling	6.4	\$177	11%
Hot Water	16.3	\$170	11%
Lights/Appliances	25.2	\$626	40%
Photovoltaics	-0.0	\$-0	-0%
Service Charges		\$254	16%
Total	60.3	\$1550	100%

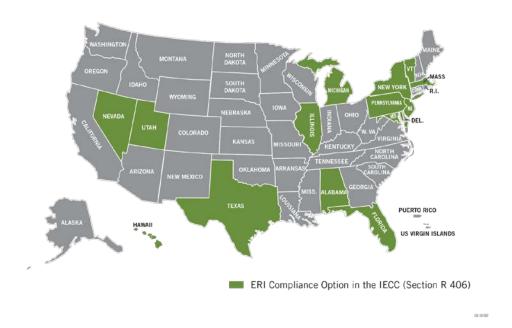
This home meets or exceeds the minimum criteria for all of the following: EPA ENERGY STAR Version 2 Home 2006 International Energy Conservation Code 2009 International Energy Conservation Code

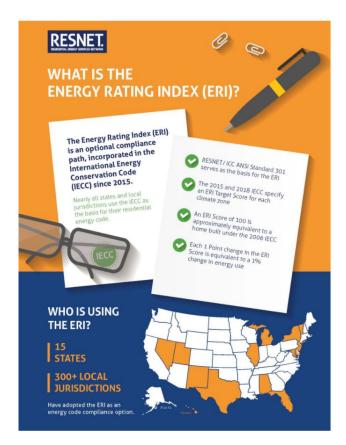






States that Allow the ERI Compliance Option in the International Energy Conservation Code® (IECC®)





ERI is on Building Permit.

Fannie Mae and Freddie Mac Appendix D

Energy Efficient Items

The appraiser must enter any energy efficient items for the subject property and each comparable property. If there are no energy efficient items, enter 'None'.

Reporting Format:

Energy Efficient Items – Text

Energy Efficient Improvements

An energy-efficient property is one that uses resource-effective design, materials, building systems, and site orientation to conserve nonrenewable fuels.

Special energy-saving items must be recognized in the appraisal process and noted on the appraisal report form. For example, when completing the appraisal report (Form 1004), special energy-efficient items are to be addressed in the Improvements section in the Additional features field. The nature of these items and their contribution to value will vary throughout the country because of climactic conditions, differences in utility costs, and overall market reaction to the cost of the feature. Some examples of special energy-efficient features may include, but are not limited to, energy efficient ratings or certifications, programmable thermostats, solar photovoltaic systems, low-e windows, insulated ducts, and tank-less water heaters.

Appraisers must compare energy-efficient features of the subject property to those of comparable properties in the Sales Comparison Approach adjustment grid. If the appraiser's analysis determines that an adjustment is warranted based on the market reaction to such item(s), the adjustment must be included in the adjustment grid.

Solar panels that are leased from or owned by a third party under a power purchase agreement or other similar arrangement are to be considered personal property items and are not included in the appraised value of the property. See <u>B2-3-04</u>, <u>Special Property Eligibility Considerations</u> (02/23/2016), for additional eligibility requirements for properties with solar panels.

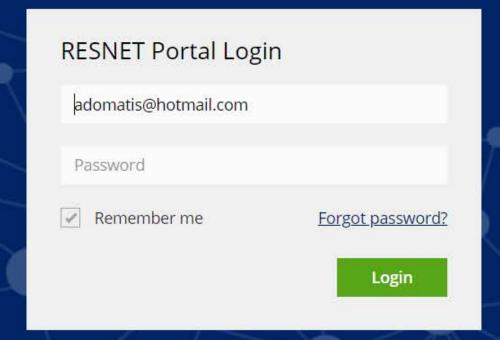
Printed copies may not be the most current version. For the most current version, go to the online version at https://www.fanniemae.com/singlefamily/originating-underwriting.

564

5/1/2018 Guide

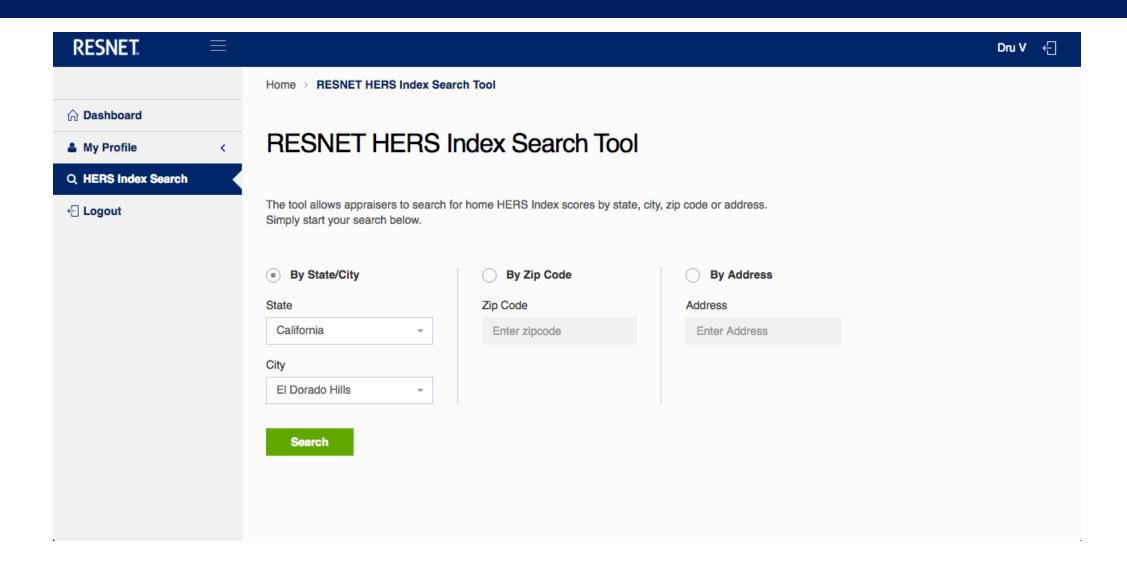
Fannie Mae Selling Guidelines... Market Reaction

RESNET.



https://portal.resnet.us/

Comparable Sales Search

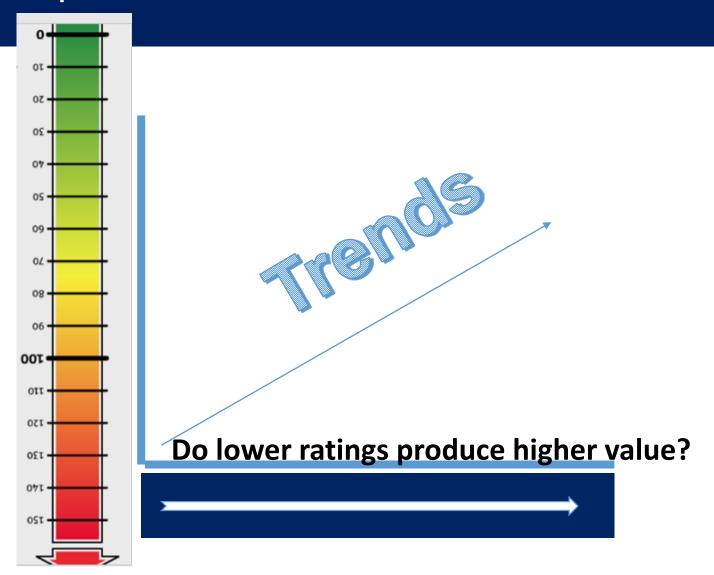


Sales Comparison Approach that meets Fannie Mae Guidelines and Appraisal Standards

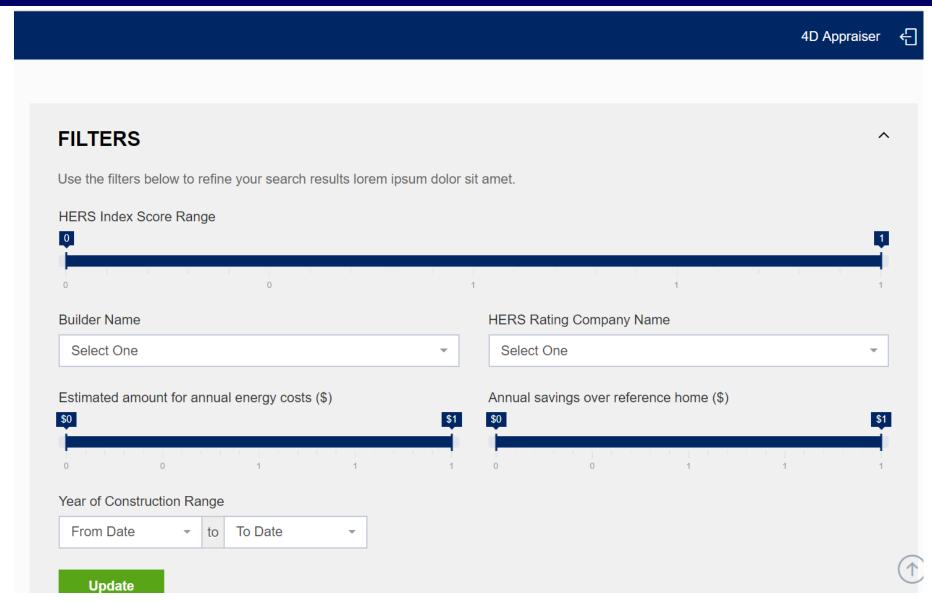
View	Residential/vacant	Residential/vacant		Residential/vacant		Residential/vacant	
B Design (Style)	Ranch	Ranch		Ranch		Ranch	
Quality of Construction	ZERH,ES, FGBC	Code Built-2014		Code Built-2014		Code Built-2014	
Actual Age	0+/- Years	0+/- Years		0+/- Years		0+/- Years	
Condition	New	New		New		New	
Above Grade	Total Bdrms. Baths	Total Bdrms. Baths		Total Bdrms. Baths		Total Bdrms. Baths	
Room Count	5 3 2	6 3 2		6 3 2		6 3 2	
Gross Living Area	1,437 sq. ft.	1,437 sq. ft.		1,437 sq. ft.		1,437 sq. ft.	
Basement & Finished	n/a	n/a		n/a		n/a	
Rooms Below Grade	n/a	n/a		n/a		n/a	
Functional Utility	Average	Average		Average		Average	
Heating/Cooling	FWA C/Air	FWA C/Air		FWA C/Air		FWA C/Air	
Energy Efficient Items	HERS 47	No HERS, Inf	9,595	No HERS, Inf	9,595	No HERS, Inf	9,345
Garage/Carport	One Car Garage	Two Car Garage	-5,000	Two Car Garage	-5,000	Two Car Garage	-5,000
Porch/Patio/Deck	Cov Entry	Cov Entry, Lanai	-5,000	Cov Entry, Lanai	-5,000	Cov Entry, Lanai	-5,000
Utilities	Well/Septic	City Wtr/Septic		City Wtr/Septic		Well/Septic	
Days on market		22		8		6	

Comparable Sales Search

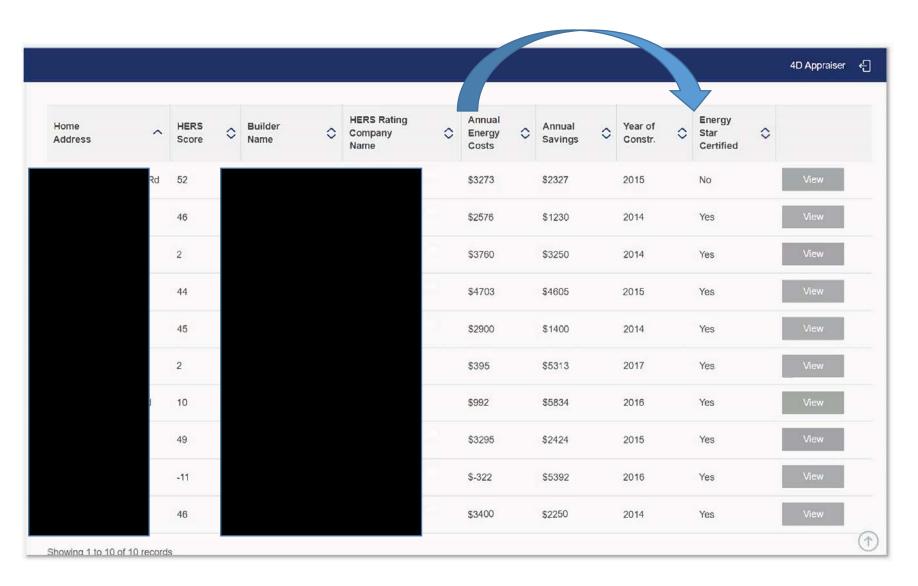
- By State
- By City
- By Zip Code
- By Address



Filter Results

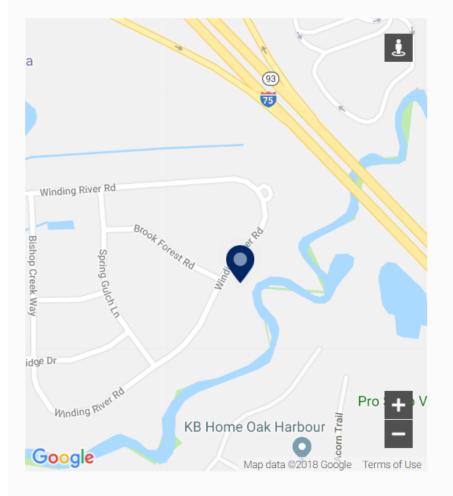


Results – Market Reaction?

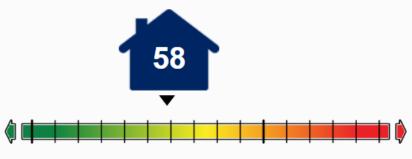


10085 Winding River Rd, Punta Gorda, FL 33950

View



HERS Index Score



Builder's Name: KB Home

HERS Rating Company: -

Year of Construction: 2016

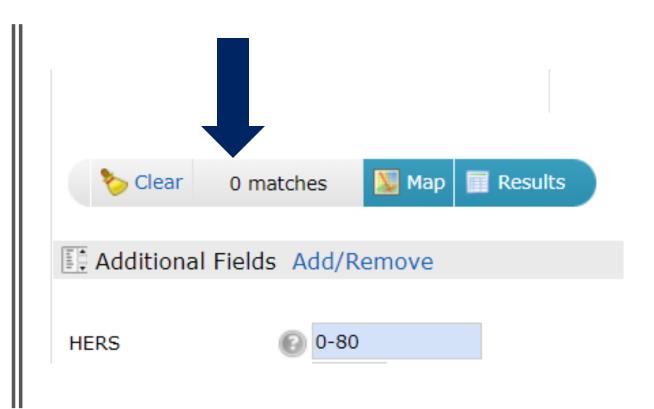
Date submitted to Registry: 2017

Annual Energy Costs: \$1415

Annual Energy Savings: \$893

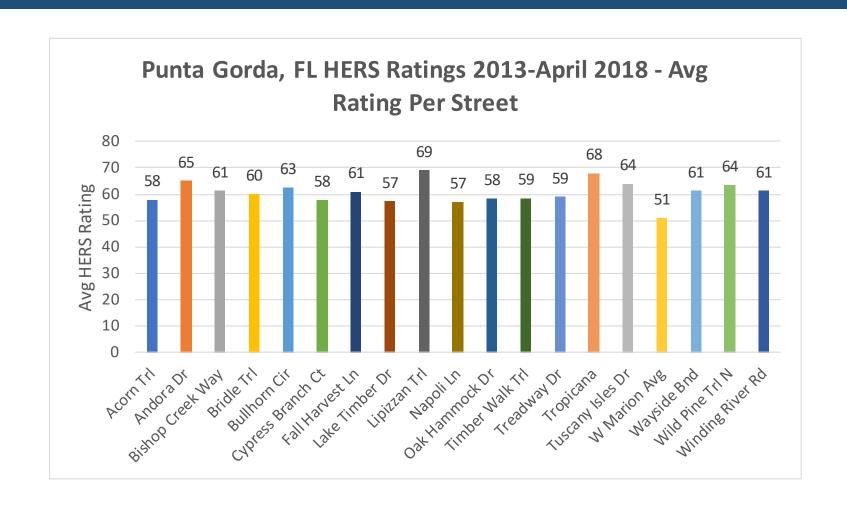
Energy Star Certified: No



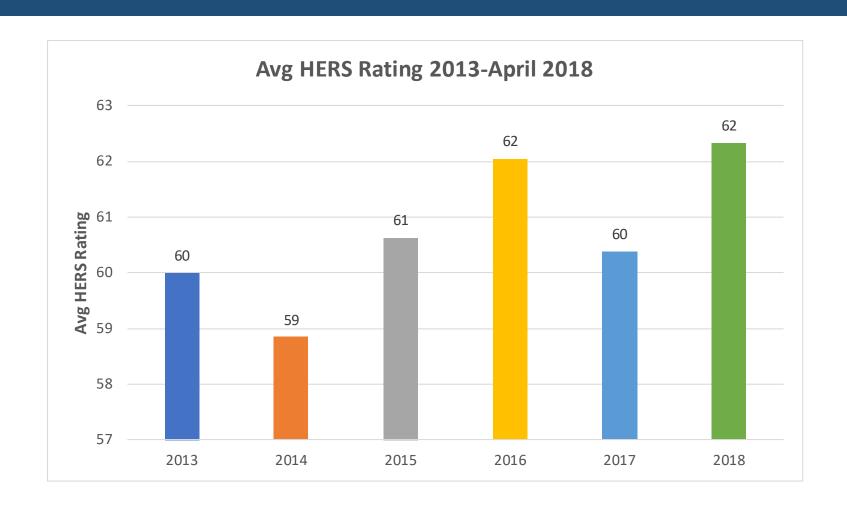


So, what does the MLS show in this market?

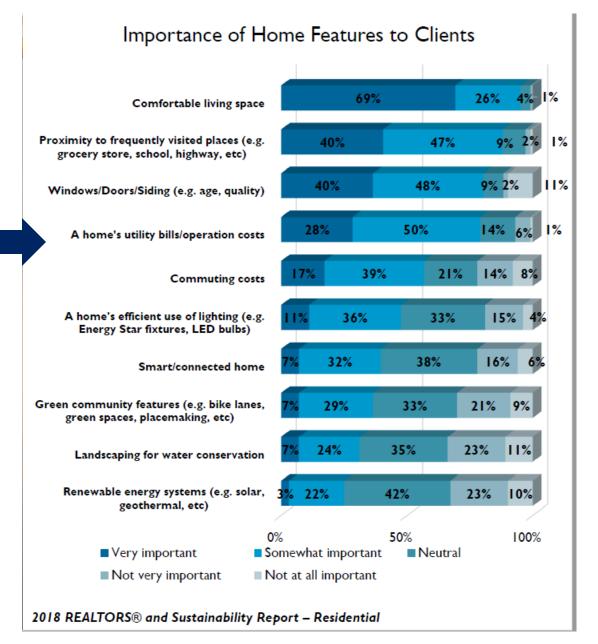
Market Reaction Supported



Market Reaction Supported



Market Reaction Supported?



MLS shows no HERS?????

200 shown in RESNET Appraisal Portal

Avg HERS # of						
Year	Rating	Ratings				
2013	60	9				
2014	59	19				
2015	61	55				
2016	62	62				
2017	60	55				
Apr-18	62	3				
Avg.	61	40				

Now I have addresses to research

These addresses give appraisers a place to start the sales search for not only comparable data but for...

Paired-data analysis.
Pairing sales with differing
HERS Ratings may provide
direct market support for
the value of the energy
efficient features.

Paired-Data Analysis

	Sale A	Sale B	
Sale Date	02/05/2018	12/25/2017	
Sales Price	\$225,000	\$235,000	
Living Area	2,100	2,125	
Bedrooms/baths	3/2.5	3/2.5	
HERS Rating	65	45	
Location	Sunny Side	Sunny Side	
Sale Price Difference	\$235,000-\$225,000=\$10,000 for 20 points difference in HERS Rating		

Note: For educational purposes only, not actual sales

ENERGY STAR®

RESNET HERS Registry is only place to identify ENERGY STAR® Certified Homes to answer:

- 1. Do they sell for more?
- 2. Do they experience fewer days on market?
- 3. Is new construction in your market seeing more ENERGY STAR® homes?

A Full HERS Report Provides Valuable Valuation Data like these

Details of construction and energy features

Basis for comparing sales

Data to develop an income approach to value using energy savings

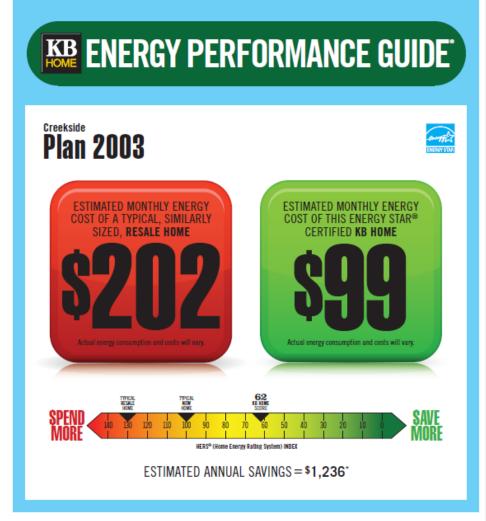
A third-party report that gives credibility to the term "energy-efficient" home.

MLS Listings and Builders Must Change the Advertising

BRAND NEW CONSTRUCTION HOME MOVE IN READY!!! 4 bedrooms 2 ½ baths, Flooring Vinyl downstairs, Carpet upstairs, Kitchen island bar-top height, includes Range /oven, Fan Hood, Dishwasher, 2nd floor Laundry room, Extended vanity in Master Bath, standard tub shower in both baths. Covered porch in front, cul-de-sac lot, 2 car garage with door opener Home is complete and ready!



Attaching this to the MLS without populating HERS searchable field does not help.



62015 KB Horne. The HERS® Index is a registered trademark of the Pexidential Energy Services Network (RESNET). KB Horne is not affiliated with RESNET or its service provides, or with any energy efficiency rating organization or related system or service projects, contained program, or rates. The HERS Index are of the estimated energy costs and savings shown for this KB horne plan and the typical reside horne are determined using RESNET-approved computer software and RESNET lactors and assumptions as to hybical residential energy use and the standard fleatures of this KB horne plan as designed and of a typical residential energy use and the standard fleatures of this KB horne plan as designed and of a typical residential energy costs on the heating and cooling systems, applicances and lighting that are included as standard interes with this KB horne plan and the typical reside horne (as assumed by the RESNET software), and average local energy utility provider-imposed flees, tartific or charges as and savings shown on the HERS index is the RESNET U.S. national reference horne, which is built to the special fleet and 2006 interestinal Energy Conservation Code. The comparison typical reside horne on the HERS holds were energy efficiency of the excessing U.S. housing stock compared to the RESNET U.S. national reference horne, as set by the U.S. Department of Energy. KB Horne does not not HERS holds and a HERS house set of the excessing U.S. housing stock compared to the RESNET U.S. national reference horne, as set by the U.S. Department of Energy. KB Horne does not always the standard of the excessing U.S. housing stock compared to the RESNET U.S. national reference horne, as set by the U.S. Department of Energy. KB Horne does not always the standard of the excessing U.S. national tender or an advance of the RESNET U.S. national reference horne, as set by the U.S. Department of Energy. KB Horne does not always the standard of the excessing U.S. and the standard or the RESNET than the horner has an advisent of the N

Marketing May Influence Sales Price

Pearl Gold Crozet, VA	Contract Date	Market	Sold Price	Adjusted Sale Price	Living Area	Sales Price Premium (Pearl Sale Price- Adjusted Non Green Sale Price)	Premium as % of Sale Price (Premium/Pearl Sale Price)	Age Yrs
Sin	gle-Unit Detac	hed						
Pearl	2/26/2017	29	\$477,000		2,170			15
Pair 13	7/8/2016	63	\$445,000	\$430,766	2,535	\$46,234	9.69%	9
Pair 14	7/30/2016	1	\$449,900	\$435,792	2,518	\$41,208	8.64%	19

The MLS included Pearl Home Certification documents including the AI Residential Green and Energy Efficient Addendum. The photograph gallery had the Pearl Certificate. The second sentence of the comments said, "Gold certified efficiency rating from Pearl."

MLS Listing that maximizes the energy features

NOW COMPLETE! Walking distance to the town center w/a variety of shops & restaurants. This new, energy efficient home features an open floor plan, family room and 4th bedroom plus bath in basement, and 3 bedrooms and 2 full baths upstairs. This section allows rental income over the garage and this home features an 1BR apartment in the oversized 22'x24' garage. Beautiful hardwood flooring throughout main level, granite, stainless appliances and custom trim work. This home achieved a HERS score of 48 and includes high SEER mini -split HVAC as well as foam insulation and tankless water heater. Cost of ownership will be much lower than the average home. PEARL Certified Platinum Level.

Source: MLS Listing

Certification Attached and a JPG in MLS Photograph Gallery

5.4%
Sales
Price
Premium

Maximizing Marketing

- Include HERS in searchable MLS field
- Attach HERS Report to MLS
- Insert HERS Certificate as a JPG in MLS photograph gallery
- Attach completed AI Residential Green & Energy Efficient
 Addendum
- Attach completed lender letter from "Appraised Value & Energy Efficiency: Getting it Right" brochure

Learn more about how to implement green into appraisals & marketing



A Guide to the Residential Green and Energy Efficient Addendum

By Sandra K. Adomatis, SRA, LEED Green Associate, NAR GREEN May 2018

Reviewed by Ben Hoen of Lawrence Berkeley National Laboratory

PART II. ENERGY LABEL

Energy Label	RESNET's HERS		Estimated energy savings for this home: \$/year¢kWh rate dated//_			
Energy Label Labels disclose the state of the home's energy assets. The HERS Delon Or.	Rating (0 to 150): Sampling Rating Projected Rating Confirmed Rating		Energy Savings includes electricity, neating & Cooling. Score below 100 indicates energy costs are expected to be lower than average codebuilt home. HERS Index Report occupancy estimates energy cost based on number of bedrooms plus one. Only a "confirmed rating" is diagnostically tested.			
	DOE's Home Energy Score Score (1 to 10): Official Score Unofficial Score		Estimated energy savings for this home: \$ckWh rate dated			
	Other Energy Score: Range (to):		Estimated energy savings: \$/year¢ kWh rate dated//_ Describe energy label system:			
	Date Verified://	Organizat	lating Version: ion URL: www.resnet.us/ omeenergyscore.gov	ABOVE VALID ONLY IF CHECKED: Verification reviewed on site Verification attached to this report		

Guide Addresses Appraiser, Listing, & Lender Relevance for each section.

- Where does it go on the 1004?
- Why is it important?
- How can it be used in marketing?
- How can lender use in underwriting?

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
Practical Applications in Appraising Green Commercial Properties	15	State Approval

FAQs

Program Registry - Residential

Program Registry - Commercial

https://www.appraisalinstitute.org/education/yourcareer/professional-developmentprograms/#Valuation%20of%20Sustainable%20Buildings

Appraiser Education Opportunities



Thank you!

Contact Info:

Ryan Meres RESNET **Contact Info:**

Sandy Adomatis, SRA, LEED Green Assoc., NAR Green

Adomatis@Hotmail.com

