

***Seeking Value for
Passive Houses in the Real
Estate Market:
Making the Invisible Visible***

Jeff Gephart,
Vermontwise LLC
Rochester, VT



Jeff Gephart - Bio

- Proprietor, *Vermontwise* LLC, Rochester, VT 2018 to present
- President, *Vermontwise* Energy Services, Inc., Rochester, VT 1997-2017
- Member of the 2009 Westford, MA CPHC class – *never a CPHC*
- Residential new construction efficiency services implementation contractor for Vermont's statewide energy efficiency utility since 2000, and for all major Vermont utilities 1997-2000
- Utility Demand-Side-Management, Central Vermont Public Service 1992-1997
- Residential construction field and office work 1976-1992

I am not an appraiser, a Realtor[®], nor a lender

Agenda

The Problem

Few Real Estate Professionals Have the Necessary Training and Skills

You and Your Passive House Client:

Best Practice for Passive House Projects Seeking Financing

Appraisals

Engaging Lenders

Passive Houses for the Masses

To Get Contributory Value for Energy Efficiency and Renewable Energy, Real Estate Market Transformation is Needed Everywhere – We Need Your Help!

Visible Home Features



Visible Home Features

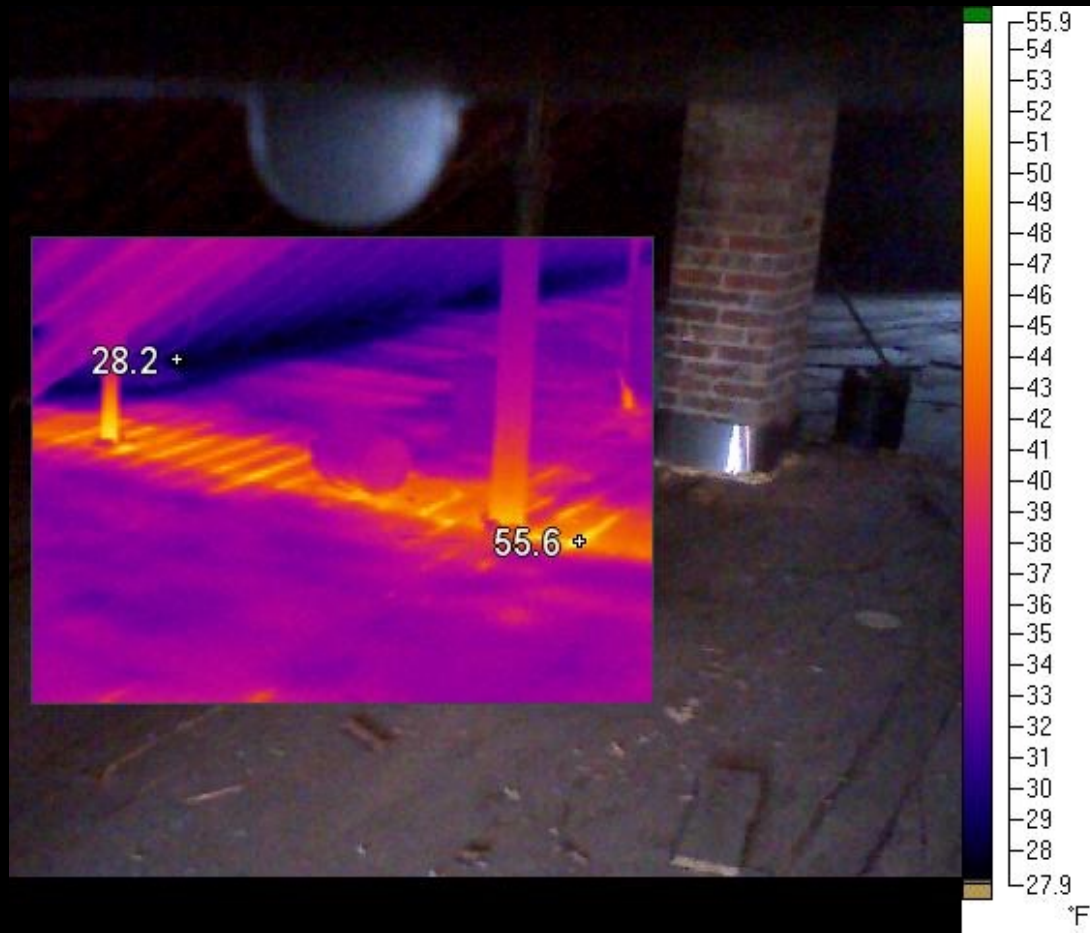


Visibility Problem



Much of what makes a home highly energy efficient is invisible.

We use special diagnostic tools to make home performance visible



Problem

Lack of Knowledge & Training



Many real estate professionals are ill-equipped to identify and value Passive Houses.

The Risk

Without a supporting appraisal and a loan, including the additional capital to build a Passive House, many projects will come to a halt.



The Conundrum

It's unfair, but illustrative to say, appraisers drive by looking in the rear view mirror

Appraisers need market evidence that energy efficiency is valued...

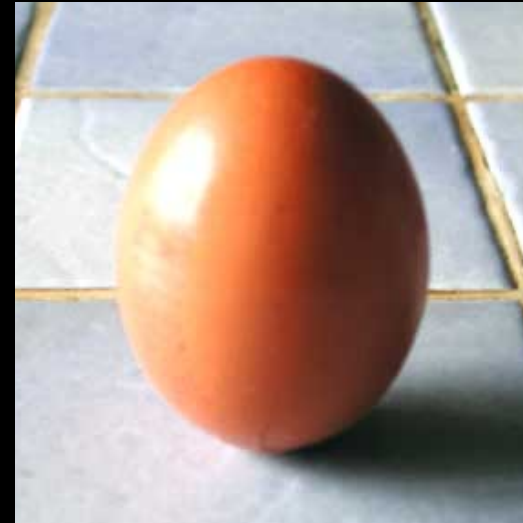


The Conundrum

...but, as market value is primarily determined by what's happened in the past, and many appraisers lack training and the tools and data to identify whether contributory value for energy efficiency exists in a market, we encounter a classic conundrum.



Which
comes
first?



“Nowadays people know the price of everything and the value of nothing.”

Oscar Wilde, *The Picture of Dorian Gray*



Brad Hevenor, MAI Markus Appraisal, RI



Mechanic Street Passive House | No. 1262 | Certified | Daniel Roy

No.	1262	Project	Mechanic Street Passive House	Status	Certified
Lead CPHC	Daniel Roy	Builder	Stephen C. DeMetrick Fine Woodworking	Location	Wakefield, RI
QA/QC Rater	John Rodenhizer JSR Adaptive Energy Solutions	Architecture Planning	Steven Baczek Reading Ma	Mechanical Systems Designer	Daniel Roy
Constr. Type	Timber	Bldg. Function	Single Family	Floor Area	1404
Project Type	New Construction	HERS Index	32	LEED Rating	--
Energy Star Rating	--	Heating Degree Days	5792	Cooling Degree Days	--

Air-tightness 0.155 ACH50



Valuation of Sustainable Buildings: Commercial

Professional Development Program Registry

AI	Name	Company	City, State	Accepts Fee Assignments
<u>SELECT</u> Designated Member	Bradford Hevenor, MAI	Markus Appraisal Inc.	East Greenwich, RI	Yes



Contributory Value: Three Requirements

1. The market must be convinced that renewable energy and high-performance building features have value.

NOT the APPRAISER'S RESPONSIBILITY

Responsibility of the builders, designers, real estate brokers, certifying organizations, non-profits, and government agencies promoting high performance buildings.

2. Building technology must be understood.
3. The market reaction to the building features and attributes must be measured.

The APPRAISER'S RESPONSIBILITY



Three Appraisal Methods – One Gets Used

Sales Comparison Approach (or Market Approach)

Most common method & required by Fannie Mae & Freddie Mac.

Cost Approach

Less common in use, but appropriate as support for adjustments to the Sales Comparison Approach when comparable homes lack Passive House features and benefits.

Income Capitalization Approach

Commonly used with income generating properties; though uncommon, use is appropriate with single family homes to support adjustments to the Sales Comparison Approach when energy savings are credibly documented as an income stream.

Stating the Obvious

Just as the vast majority of architects and builders do not have the training necessary to design and build a Passive House...

the vast majority of real estate professionals - appraisers, lenders, and Realtors® are also unfamiliar with Passive House construction methods and their benefits to the owner.

Appraisal Issues Acknowledged

There is some good news
on the national front...





THE APPRAISAL FOUNDATION

Authorized by Congress as the Source of Appraisal Standards and Appraiser Qualifications

John S. Brenan, Director of Appraisal Issues, The Appraisal Foundation (2010)

“Through a 5-year Memorandum of Understanding with the US Department of Energy, The Appraisal Foundation is very much **incorporating the valuation of green buildings** in the work of our three independent Boards”:

- Appraisal Practices Board (APB),
- Appraisal Standards Board (ASB), &
- Appraiser Qualifications Board (AQB).



THE APPRAISAL FOUNDATION

*Authorized by Congress as the Source of Appraisal
Standards and Appraiser Qualifications*

In follow-up with John Brennan in July, 2016...

“The five year **MOU between DOE** and The Appraisal Foundation (TAF) **expired** last month; however, both organizations have **agreed to extend the MOU for another three years**, and we’re in the process of finalizing that agreement.”



THE APPRAISAL FOUNDATION

Authorized by Congress as the Source of Appraisal Standards and Appraiser Qualifications

“What TAF has accomplished thus far under the MOU includes:

The **Appraiser Qualifications Board (AQB)** included the topic of **valuing green buildings** as part of the **qualifying education** hours that are **required to obtain** a real property **appraiser credential**.

The AQB added the topic of **valuing green buildings** to those eligible for **continuing education** credit required **to renew** a real property **appraiser credential**.



THE APPRAISAL FOUNDATION

*Authorized by Congress as the Source of Appraisal
Standards and Appraiser Qualifications*

The **Appraisal Practices Board (APB)** issued the following **Valuation Advisories**:

- *Valuation of Green and High Performance Properties: Background and Core Competence*
- *Valuation of Green and High Performance Properties: 1-4 Unit Residential”*

*John S. Brennan, Director of Appraisal Issues,
The Appraisal Foundation, July 2016*



THE APPRAISAL FOUNDATION

*Authorized by Congress as the Source of Appraisal
Standards and Appraiser Qualifications*

Appraisal Qualifications Board (AQB)

GUIDANCE FOR REQUIRED CORE CURRICULUM CONTENT*

IX. ADVANCED RESIDENTIAL APPLICATIONS AND CASE STUDIES (required for the Certified Residential classification) 15 HOURS

A. Complex Property, Ownership, and Market Conditions

B. Deriving and Supporting Adjustments

C. Residential Market Analysis

D. Advanced Case Studies

1. Seller Concessions

2. Special Energy-Efficient Items (i.e., “Green Buildings”)

*AQB GUIDE NOTE 1 (GN-1)



THE APPRAISAL FOUNDATION

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GUIDANCE FOR REQUIRED CORE CURRICULUM CONTENT cont.

XI. GENERAL APPRAISER SALES COMPARISON APPROACH (required for the Certified General classification) 30 HOURS

A. Value Principles

B. Procedures

C. Identification and Measurement of Adjustments

D. Reconciliation

E. Case Studies

1. Seller Concessions

2. Special Energy-Efficient Items (i.e., “Green Buildings”)

AQB GUIDE NOTE 1 (GN-1)

*John S. Brennan, Director of Appraisal Issues,
The Appraisal Foundation, January 2019*



The Appraisal Institute is a membership organization whose *“mission is to advance professionalism and ethics, global standards, methodologies, and practices through the professional development of property economics worldwide.”*

The Appraisal Institute established its Valuation of Sustainable Buildings Professional Development Program and Registry in 2011.

Per William Garber, Director of Government and External Relations, Appraisal Institute:

Since its inception, “just under 900 appraisers, out of a little more than 39,000* certified and licensed residential appraisers in the U.S., have gained a Valuation of Sustainable Buildings Professional Registry listing.”

*Note the # of appraisers is down from 50,000 in 2017!

In Vermont we’re now working on the appraisal trainees.

Valuation of Sustainable Buildings Professional Development Program & Registry – Required Courses

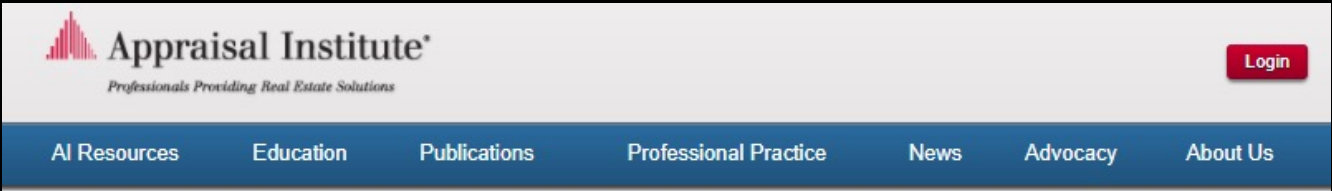


Appraisal Institute®

Professionals Providing Real Estate Solutions

Residential Courses Required 8 Vermont appraisers accepting for fee assignments	Hours & Continuing Education Credits
Introduction to Green Building: Principles & Concepts	7 hours
Case Studies in Appraising Green Residential Buildings	7 hours
Residential and Commercial Valuation of Solar	15 hours
Commercial Courses Required 5 Vermont appraisers accepting for fee assignments	Hours & Continuing Education Credits
Introduction to Green Building: Principles & Concepts	7 hours
Case Studies in Appraising Green Commercial Buildings	15 hours
Residential and Commercial Valuation of Solar	15 hours
Practical Applications in Appraising Green Commercial Properties	14 hours

Valuation of Sustainable Buildings Professional Registry

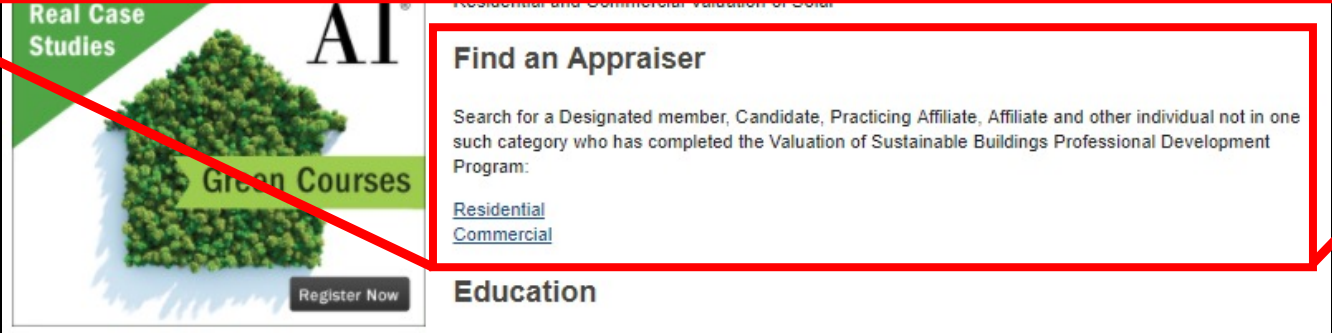


Find an Appraiser

Search for a Designated member, Candidate, Practicing Affiliate, Affiliate and other individual not in one such category who has completed the Valuation of Sustainable Buildings Professional Development Program:

[Residential](#)

[Commercial](#)





Appraisal Institute®

Professionals Providing Real Estate Solutions

Current Vermont Residential Valuation of Sustainable Buildings Professional Registry Listings

Current Vermont Residential Registry Listings

Name	Company	City, State	Accepts Fee Assignments
Edward J. Friihauf, MAI	Friihauf Appraisal Associates	Montpelier, VT	No
Michael W Gammal, MAI	Gammal Real Estate Services, P.C.	Essex Junction, VT	Yes
Amy C. McClellan, MAI, SRA	Milne-Allen Appraisal Company	Sugar Hill, NH	Yes
Sean A. Sargeant, MAI, SRA	Sargeant Appraisal Service	Rutland, VT	Yes
George C. Sargeant, SRA	Sargeant Appraisal Service	Rutland, VT	No
Sylvia P. Rogers	Sylvia Rogers Real Estate Appraisal	White River Junction, VT	Yes
Robert B. Taylor	Bruce A Taylor Appraiser	Fairlee, VT	No
Charles Stott Woods	Record Appraisal Service	St. Johnsbury, VT	Yes
Charles M. Andrews	CMA Appraisals, INC	Barre, VT	Yes
Michael F. Keller *	Keller & Associates, Inc.	Burlington, VT	Yes
John T. Waldo		Montpelier, VT	Yes

Valuation of Sustainable Buildings

Professional Registry Residential Listings

Appraisers Accepting For Fee Assignments as of 8/28/17

U.S. States & DC	Residential
Alabama	1
Alaska	9
Arizona	13
Arkansas	4
California	73
Colorado	14
Connecticut	3
Delaware	0
District of Columbia	1
Florida	19
Georgia	19
Hawaii	0
Idaho	0
Illinois	22
Indiana	8
Iowa	3
Kansas	2

U.S. States & DC	Residential
Kentucky	9
Louisiana	0
Maine	6
Maryland	4
Massachusetts	3
Michigan	2
Minnesota	1
Mississippi	0
Missouri	2
Montana	0
Nebraska	0
Nevada	6
New Hampshire	3
New Jersey	6
New Mexico	7
New York	9
North Carolina	3

U.S. States & DC	Residential
North Dakota	0
Ohio	5
Oklahoma	5
Oregon	4
Pennsylvania	4
Rhode Island	1
South Carolina	1
South Dakota	0
Tennessee	4
Texas	11
Utah	18
Vermont	9
Virginia	26
Washington	2
West Virginia	2
Wisconsin	2
Wyoming	0
Total:	346

But you might die waiting for trained appraisers!



NOW
 LATER

Start Providing Data for Appraiser Use Right Now

Be proactive regarding project appraisal and financing

Getting it right the 1st time is less trouble than appealing bad appraisals

Fill out the Appraisal Institute's ***Residential Green and Energy Efficient Addendum*** and attach supporting documentation

Get the ***Addendum*** into the mortgage application

Education

Your Career

Search Appraisal Institute Education

Education Resources

Knowledge Center

Examination Applications and Other Forms

State Appraisal Regulatory Agencies

Using a Financial Calculator

Scholarships

[Green Building Resources](#)

More Green Resources

Group Education Opportunities

Instructor Resources

Write or Review for Us

Green Building Resources

All Things "Green"

Appraisal Institute offers a variety of resources centered around the valuation of sustainable properties.

Downloads

[Commercial Green and Energy Efficient Addendum](#) - Assists appraisers in analyzing commercial "Green" features and properties

[Residential Green and Energy Efficient Addendum](#) - Assists appraisers in analyzing residential "Green" features and properties.

[FAQs: Valuation of Sustainable Buildings Professional Development Program](#)

[More Green Resources](#): Only available to "green" course participants that have taken one or more of the following:

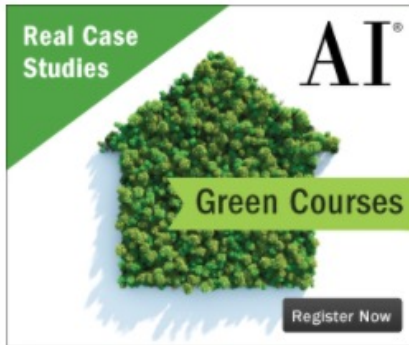
- Introduction to Green Buildings: Principles & Concepts
- Case Studies in Appraising Green Residential Buildings
- Case Studies in Appraising Green Commercial Buildings
- Residential and Commercial Valuation of Solar

Find an Appraiser

Search for a Designated member, Candidate, Practicing Affiliate, Affiliate and other individual not in one such category who has completed the Valuation of Sustainable Buildings Professional Development Program:

[Residential](#)
[Commercial](#)

Education



Real Case Studies

AI

Green Courses

Register Now

Education

Your Career

Search Appraisal Institute Education

Education

Know

Exam

State

Using

Scholar

Green

Market

Group

Instru

Write

Green Building Resources

All Things "Green"

Green Building Resources

All Things "Green"

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[Commercial Green and Energy Efficient Addendum](#) - Assists appraisers in analyzing commercial "Green" features and properties

[Residential Green and Energy Efficient Addendum](#) - Assists appraisers in analyzing residential "Green" features and properties.

Real
Studi



Register Now

Education



Client File #:	Appraisal File #:
Residential Green and Energy Efficient Addendum	
Client:	
Subject Property:	
City:	State: Zip:

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

- The appraiser hereby certifies that the information provided within this addendum:
- has been considered in the appraiser's development of the appraisal of the subject property only for the client and intended user(s) identified in the appraisal report and only for the intended use stated in the report.
 - is not provided by the appraiser for any other purpose and should not be relied upon by parties other than those identified by the appraiser as the client or intended user(s) in the report.
 - is the result of the appraiser's routine inspection of and inquiries about the subject property's green and energy efficient features. Extraordinary assumption: Data provided herein is assumed to be accurate and if found to be in error could alter the appraiser's opinions or conclusions.
 - is not made as a representation or as a warranty as to the efficiency, quality, function, operability, reliability or cost savings of the reported items or of the subject property in general, and this addendum should not be relied upon for such assessments.

Green Building: The practice of creating structures and using processes that are environmentally responsible and resource-efficient throughout a building's lifecycle from siting to design, construction, operation, maintenance, renovation, and deconstruction. This practice expands and complements the classic building design concerns of economy, utility, durability, and comfort (US EPA). High Performance building and green building are often used interchangeably.

Six Elements of Green Building: A green building has attributes that fall into the six elements of green building known as (1) site, (2) water, (3) energy, (4) materials, (5) indoor environmental quality, and (6) maintenance and operation. The energy and water elements are the most measurable elements of green or high performance housing. Appraisers need savings amounts to develop an income approach to support energy efficient contributory value.

THIRD-PARTY VERIFICATIONS (See types defined in glossary).

The following verified items are considered within the appraisal analysis of the subject property:

Green Certification Certifications attest that the home meets certain minimum thresholds.	Environmental Protection Agency (EPA): <input type="checkbox"/> Indoor airPLUS <input type="checkbox"/> WaterSense <input type="checkbox"/> ENERGY STAR
	Energy Department (DOE): <input type="checkbox"/> Zero Energy Ready Home (ZERH)
Home Innovation Research Labs NGBS Home Remodel: Home Innovation Research Labs NGBS New Home:	<input type="checkbox"/> Bronze <input type="checkbox"/> Silver <input type="checkbox"/> Gold <input type="checkbox"/> Emerald
	Living Building Challenge (LBC): <input type="checkbox"/> Living Building Certified <input type="checkbox"/> Petal Certification
	Passivhaus Standard: <input type="checkbox"/> PHI Low Energy <input type="checkbox"/> EnerPHit <input type="checkbox"/> Passive House
	Passive House Institute US: <input type="checkbox"/> PHIUS+ 2015
	USGBC LEED: <input type="checkbox"/> Certified <input type="checkbox"/> Silver <input type="checkbox"/> Gold <input type="checkbox"/> Platinum
	Other:
Date Verified: ___/___/___	Green Certification Version: _____ Organization URL: _____
ABOVE VALID ONLY IF CHECKED: <input type="checkbox"/> Verification reviewed on site <input type="checkbox"/> Verification attached to this report	

Energy Label Labels disclose the state of the home's energy assets.	RESNET's HERS Rating (0 to 150): _____ <input type="checkbox"/> Sampling Rating <input type="checkbox"/> Projected Rating <input type="checkbox"/> Confirmed Rating	Estimated energy savings for this home: \$ ___/year ___ c/kWh rate dated ___/___/___ Energy Savings includes electricity, heating & Cooling. Score below 100 indicates energy costs are expected to be lower than average code-built 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): _____ <input type="checkbox"/> Official Score <input type="checkbox"/> Unofficial Score	Estimated energy savings for this home: \$ ___/year ___ c/kWh rate dated ___/___/___ Energy Savings includes electricity, heating & Cooling. 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: Range (___ to ___): _____	Estimated energy savings: \$ ___/year ___ c/kWh rate dated ___/___/___ Describe energy label system:
	Date Verified: ___/___/___	Score or Rating Version: Organization URL: <input type="checkbox"/> www.resnet.us/ <input type="checkbox"/> www.homeenergyscore.gov <input type="checkbox"/> Other: _____
ABOVE VALID ONLY IF CHECKED: <input type="checkbox"/> Verification reviewed on site <input type="checkbox"/> Verification attached to this report		

Verified Energy Improvements Only include improvements with verified documentation.	Explain energy-related improvements: Cost of improvements: \$ _____
	Date Verified: ___/___/___
Certificate of Efficiency Improvements Version: _____ Organization URL: <input type="checkbox"/> Other: _____ <input type="checkbox"/> energystar.gov/homeperformance	ABOVE VALID ONLY IF CHECKED: <input type="checkbox"/> Verification reviewed on site <input type="checkbox"/> Verification attached to this report

Completed by: _____ Title: _____ Date: _____

*NOTICE: The Appraisal Institute publishes this form for use by appraisers where the appraiser deems use of the form appropriate. Depending on the assignment, the appraiser may need to provide additional data, analysis and work product not called for in this form. The Appraisal Institute makes no representations, warranties or guarantees as to, and assumes no responsibility for, the data, analysis or work product, or third party certifications, verifications, data specifications, scores, indexes, or valuation tools, used or provided by the individual appraiser(s) or others in the specific contents of the AI Reports®. AI Reports® AI-820.05 Residential Green and

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 [URAR] 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 it to appraisers, agents, lenders, and homeowners.

Provide Data!

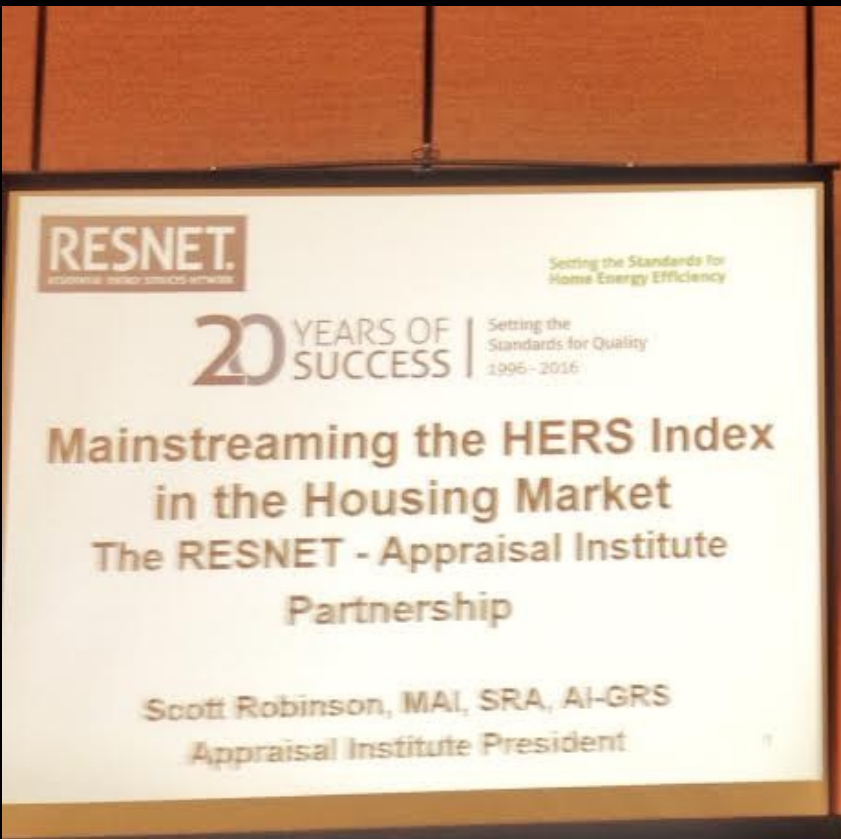
Use your Home Energy Rating (HERS) Index Score & report

- Provides a 3rd party verification of the efficiency of a home using a nationally recognized “asset rating” system designed for use in mortgage finance
- HERS report provides much of the data needed for the *Residential Green and Energy Efficient Addendum*

Request that your PHIUS+ HERS Rater:

- provide the annual energy savings for your Passive House versus a home built to the minimum local energy code requirements
- calculate the present value (PV) or net present value (NPV) of the energy savings

RESNET National Conference Feb/Mar 2016, Scottsdale, AZ



RESNET.
Setting the Standards for Home Energy Efficiency

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

**Mainstreaming the HERS Index
in the Housing Market
The RESNET - Appraisal Institute
Partnership**

Scott Robinson, MAI, SRA, AI-GRS
Appraisal Institute President

**Scott
Robinson
Appraisal
Institute**



**Steve
Baden
RESNET**



Provide Data!

With energy efficiency recognized as a new market influencer, appraisers can justify using cost data as secondary evidence to support adjustments to the sales comparison approach, where comparable homes are lacking

Cost Data Addendum for High Performance Homes V2 -

developed in the Pacific Northwest by Fiona Douglas-Hamilton at S.E.E.C., LLC

Can be downloaded at no charge

Cost Data Addendum for High Performance Homes

BUILDER/REALTOR/OWNER TO FILL OUT

Home Information	
Address:	
City:	State:
Zip:	Gross Living Area:

Home Energy Performance Label	Modeled Score	Tested Score
Energy Performance Score (EPS)		
Home Energy Rating System (HERS) Index		
Home Energy Score (HES)		
Other (please specify):		
Baseline energy code compared to (Jun. 2012 IECC)		Code/Year:

Home Utilities: Energy and Water Savings	
Energy	
Neighborhood Average Utility Usage	\$
Fuel Type	
Local Utility Rate - Gas; Electric	\$
Estimated Energy Savings	\$
Water	
Standard Average Water Consumption (Gallons per day)	
Local Water Rate CCF (CCF = 100 cubic feet, equivalent to 748 gallons)	\$
Local Sewage Rate CCF	\$
Combined Total Average Water/Sewage Savings CCF (GPF/GPM divided by 748)	\$

Third-Party Certification	Level (e.g. Gold)
Built Green®	
Earth Advantage®	
ENERGY STAR® Certified Homes	
LEED® for Homes	
ICC 700 Green Building Standard	
Other (please specify):	

SECTION ONE: SUMMARY (Complete with cumulative data from Section Two)

Below is the summary of high performance features and incremental costs above a code-built home or a standard practice. Please include any federal or state tax credits, income or property tax deductions, and utility (or other) program rebates under "Rebates/Incentives Received".

Features	Rebates/Incentives Received	Additional Costs
Durability Strategies	\$	\$
Building Envelope	\$	\$
Heating and Cooling Systems	\$	\$
Appliances	\$	\$
Indoor Water	\$	\$
Irrigation/Stormwater	\$	\$
Renewables	\$	\$
Innovative Measures	\$	\$
ENERGY STAR production builders: % of increased cost over a code-built home:	\$	%
Total:	\$	\$

Copyright 2013

S.E.E.C. LLC 

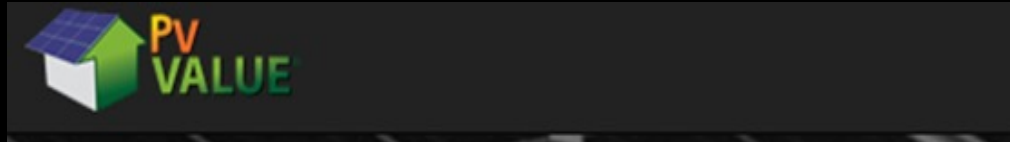
Provide Data!

PV Value®

This U.S. DOE supported web tool is used to help determine the value of a host-owned photovoltaic (PV) system installed on residential and commercial properties

Income Capitalization Method Tool

<https://pvvalue.com/>



Solar PV
How Much is it Worth?

Register to use PV Value® for free and find out!

Quick Registration

Already registered? Please sign in above.

“We are pleased to continue to serve as the industry leader in real estate valuation by offering our support for this innovation.”
~ Appraisal Institute

© 2016 Energy Sense Finance, LLC | 3825 Henderson Blvd., Suite 300 Tampa FL 33629 | www.energysensefinance.com
PV Value® Beta Version 0.8.1 | Funded in part through the U.S. Department of Energy's SunShot Initiative

Energy Sense Finance		Sandia National Laboratories		PV Value® Photovoltaic Energy Valuation Model v. 1.1	
Choose Property Type <input checked="" type="radio"/> Residential <input type="radio"/> Commercial					
Solar Resource Calculation Zip Code: 85705 System Size in Watts: 6,800 Derate Factor: 0.770 Commissioning Report #: <input type="text"/> Module Degradation Rate: 0.5 Array Type: <input type="text"/> Array Tilt (unchecked - latitude): 0.0 Array Azimuth (default - South): 180 Click to Calculate PV Production: kWh Produced/Year: 10,284		Discount Rate Calculation Basis Points (low): 50 Basis Points (high): 280 Basis Points (average): 125 Choose Net Yield Rate: 12/17/2013 Rate is Out of Date Discount Rate (low): 3.59 Discount Rate (average): 4.24 Discount Rate (high): 5.09		Electricity Rate Inputs Click to Update Utility Specific Electricity Rate: Tucson Electric Power Co Residential Rate c/kWh: 9.87 Utility Escalation Rates for: AZ Residential Escalation Rate - EIA: 0.40 User Defined (check box) c/kWh: <input type="checkbox"/> User Defined (check box): <input type="checkbox"/>	
		Operation & Maintenance Inputs 15-Year O&M Expenses as a function of the system size: \$5 O&M Expenses c/kWh: \$5 User Defined (check box) c/kWh: <input type="checkbox"/> Est. Inverter Replacement Cost: \$1,743.88 System Age and Remaining Lifetime: 25 Module Warranty Years: 0 Age of System Years: 25 Remaining Energy Years: 25 is this a Lease to purchase? <input type="checkbox"/> check for Bugout Valuation			
User Input User Input Override Calculated Value		Appraisal Range of Value Estimate Low: \$12,910.88 Average: \$13,853.03 High: \$15,120.39			

“In theory, there is no difference between practice and theory.”

“In practice, there is.”

Yogi Berra



Speaking to the Lender

Few lenders have seen or heard of the ***Residential Green and Energy Efficient Addendum***

The ***Addendum*** puts the lender on notice that you have a complex appraisal assignment and they need hire a competent appraiser

Lenders may state that the Dodd-Frank banking reform bill's ***Appraisal Independence Requirements*** prohibits them from involvement in appraiser hiring

Such comment is inaccurate as Fannie Mae states in its ***Appraisal Independence Requirements***



Fannie Mae®

Appraiser Independence Requirements

October 15, 2010
(Reposted April 2017 for reformatting)

B. There must be separation of a Seller's sales or Mortgage production functions and appraisal functions.

An employee of the Seller in the sales or Mortgage production function shall have no involvement in the operations of the appraisal function.

(1) Certain parties are prohibited from:

(a) Selecting, retaining, recommending, or influencing the selection of any appraiser for a particular appraisal assignment or for inclusion on a list or panel of appraisers approved or forbidden to perform appraisals for the Seller; and



Fannie Mae®

Appraiser Independence Requirements

October 15, 2010
(Reposted April 2017 for reformatting)

(b) Having any substantive communications with an appraiser or appraisal management company relating to or having an impact on valuation, including ordering or managing an appraisal assignment.

These parties are:

- (i) All members of the Seller's Mortgage production staff;
- (ii) Any person who is compensated on a commission basis upon the successful completion of a Mortgage; and
- (iii) Any person whose immediate supervisor is not independent of the Mortgage production staff and process.

Complex Appraisal – Special Property Type

Complex appraisal assignment

- Passive Houses have unique features compared to a traditionally built home
- Databases are insufficient presenting research challenges
- Most appraisers do not have training about this special property type
- Without knowledge of construction methods and benefits to the owner, it will be difficult for the appraiser to appraise this special property type appropriately

Know Your Rights

Communication Allowed Under Lending Guidelines/Dodd-Frank Act

Appraisers can talk with builders, brokers, agents, and sellers

Builders, brokers, agents, and sellers can provide the appraiser with documents

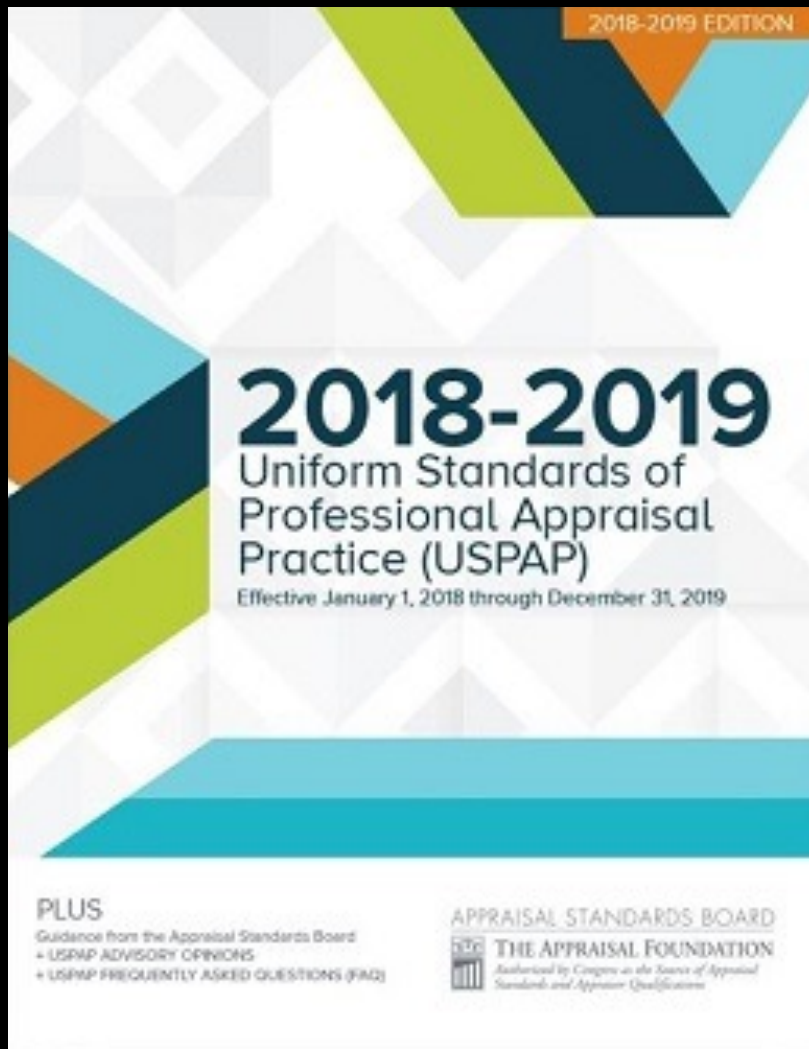
Builders, brokers, agents, and sellers can accompany appraiser on the inspection

Appraisers cannot be pressured by loan officer or others involved in the process to arrive at a value conclusion or to omit important facts



THE APPRAISAL FOUNDATION

Authorized by Congress as the Source of Appraisal Standards and Appraiser Qualifications



Appraiser Competence

Though it is a challenge, sellers and buyers have a right to a competent appraisal.

When provided with appropriate documentation it is the lender's responsibility to hire a competent appraiser.

Know Your Rights - The Competency Rule

Per Uniform Standard of Professional Appraisal Practice (USPAP) an appraiser must:

- 1) be competent to perform the assignment,
- 2) acquire the necessary competency to perform the assignment, or
- 3) decline or withdraw from the assignment.

Competency requires:

- 1) The ability to properly identify the problem to be addressed, and
- 2) The knowledge and experience to complete the assignment competently, and
- 3) Recognition of, and compliance with laws and regulations that apply to the appraiser or to the assignment...includes familiarity with a specific type of property.

Fannie Mae Selling Guide

Part B, Origination Through
Closing Subpart B4,
Underwriting Property
Chapter B4-1, Appraisal
Requirements
Section B4-1.1, General
Appraisal Requirements
Published: October 2, 2019

www.fanniemae.com/content/guide/selling/b4/1.1/03.html



Selling Guide

Fannie Mae Single Family

Fannie Mae Selling Guide

Appraiser Selection Criteria

Knowledge and Experience

“Lenders must use appraisers that:

have the requisite knowledge required to perform a professional quality appraisal for the specific geographic location and particular property type; and

have the requisite knowledge about, and access to, the necessary and appropriate data sources for the area in which the appraisal assignment is located.”

Source: Selling Guide: Fannie Mae Single Family - Published October 2, 2019,
B4-1.1-03, Appraiser Selection Criteria

Fannie Mae Selling Guide

Appraiser Selection Criteria Knowledge and Experience

“Appraisers that are not familiar with specific real estate markets may not have adequate information available to perform a reliable appraisal. “

“Although the Uniform Standards of Professional Appraisal Practice (USPAP) allows an appraiser that does not have the appropriate knowledge and experience to accept an appraisal assignment by providing procedures with which the appraiser can complete the assignment, Fannie Mae does not allow the USPAP flexibility.”

Source: Selling Guide: Fannie Mae Single Family - Published October 2, 2019,
B4-1.1-03, Appraiser Selection Criteria

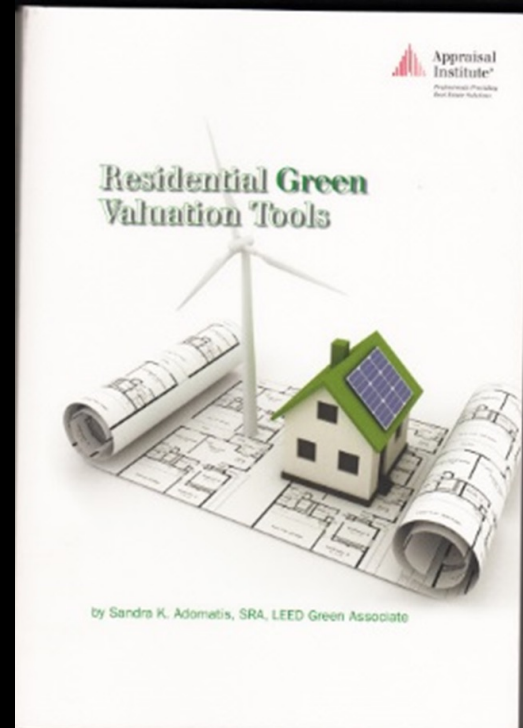
Competency & the Major Secondary Mortgage Markets

Competency Required:	USPAP	Fannie Mae	Freddie Mac	FHA	VA
Before Completion:	X				X
Prior to Accepting:		X	X	X	

Source: *Residential Green Valuation Tools* – August 19, 2014
Sandra Adomatis, SRA, LEED GP

A Leading Appraiser's Advice

Sandra Adomatis, SRA, LEED GA - the appraiser who developed the AI *Addendum* and author of *Residential Green Valuation Tools* provides the following advice:



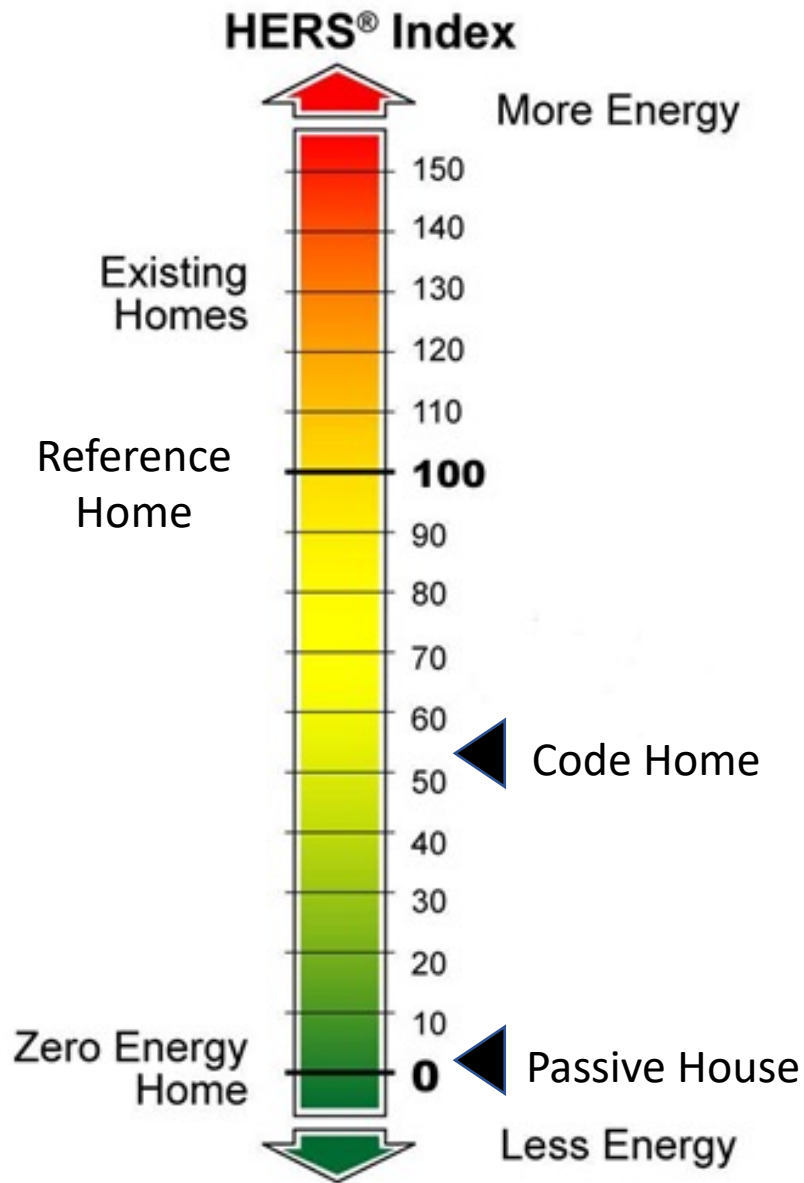
A Leading Appraiser's Advice

Sandra Adomatis, SRA, LEED GA, advises that you:

- Complete the *AI's Residential Green and Energy Efficient Addendum* & attach a copy of:
 - any state or local energy code compliance certificate
 - the full Home Energy Rating Report (including the Home Energy Rating Certificate)
 - a graphic display of Home Energy Rating Index

Sandra Adomatis, SRA, LEED GA









A Leading Appraiser's Advice



Graphic display advised

Another possible graphic summary...

but, remember the KISS principle.

							Source Zero Renewable Energy System
							Balanced Ventilation HRV/ERV
							Balanced Ventilation HRV/ERV
						SOLAR READY Depends on climate	SOLAR READY ALWAYS
						Eff. Comps. & H2O Distrib	Eff. Comps. & H2O Distrib
						 EPA Indoor airPLUS	 EPA Indoor airPLUS
						Ducts in Condit. Space	Ducts in Condit. Space
						HVAC QI w/WHV	Micro-load HVAC QI
						Water Management	Water Management
						Independent Verification	Independent Verification
						IECC 2009 Enclosure	Ultra-Efficient Enclosure
						HERS 85-90	HERS 35-45
						HERS 70-80	HERS < 0
						HERS 65-75	
						HERS 55-65	
						HERS 48-55	
 IECC 2009	 IECC 2012	 ENERGY STAR v3	ENERGY STAR v3.1	 ZERH	 PHIUS+ PHIUS+	 PHIUS+ SourceZero	

Comparison of Residential* Energy Codes & Standards

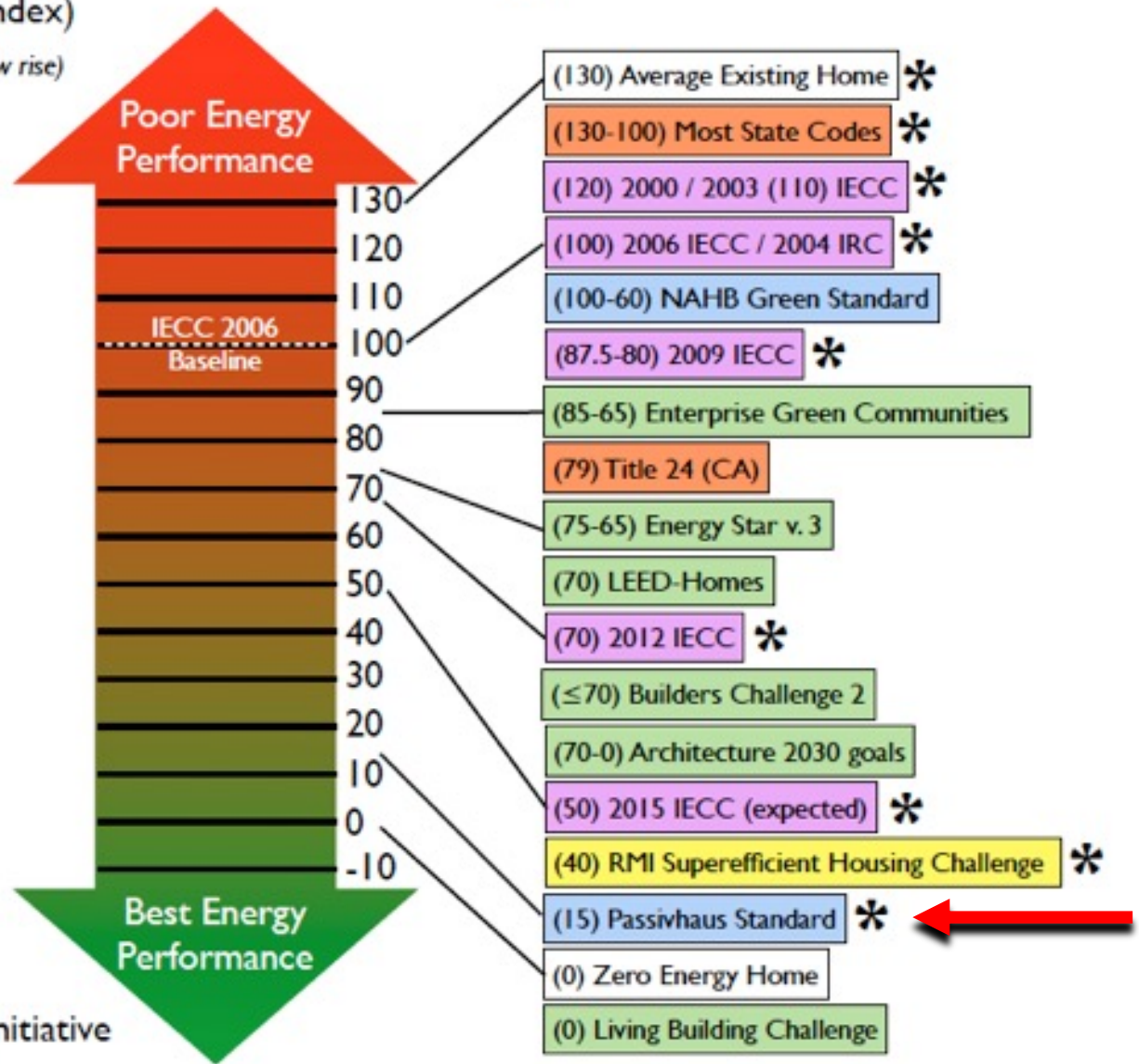
(on a relative HERS index)

* Single Family, Multifamily (low rise)

Legend

- Model Codes
- Codes
- Standards
- Guidelines

* Excludes Photovoltaic Energy



Superefficient Housing Initiative

A Leading Appraiser's Advice

Sandra Adomatis, SRA, LEED GA, advises that you:

- Complete the *AI's Residential Green and Energy Efficient Addendum* & attach a copy of:
 - any state or local energy code compliance certificate
 - the full Home Energy Rating Report (including the Home Energy Rating Certificate)
 - a graphic display of Home Energy Rating Index
 - 3rd party verified energy efficiency or green building certifications...
 - your Passive House certification

Sandra Adomatis, SRA, LEED GA

Work with partner financial institutions to ensure selection of qualified appraisers.



How to prepare the buyer/loan applicant for an appraisal

How to provide data to the lender and appraiser

Engaging Lenders Using:



Appraised Value and Energy Efficiency: Getting It Right

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 2013 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.



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.

Explains why there are issues with appraisals:

- Changes in market demand
- Energy code updates
- Fannie Mae, Freddie Mac, FHA requirements for appraiser competency

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

Engaging Lenders Using:



Appraised Value and Energy Efficiency: Getting It Right

Template letters for buyer and lender offer solutions:

- Prepares buyer for the mortgage application and appraisal
- What loan applicants need to do when seeking the mortgage
- For lenders it describes why home is a special property type
- Provides a Registry where lenders can find qualified appraisers
- Explains course work those appraisers completed

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.

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.

Internat
IECC or e

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 (2012 IECC)
- 2015 International Energy Conservation Code (2015 IECC)

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 at: http://www.myappraisalinstitute.org/findappraiser/green_sustainability_residential.aspx. 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 at: http://www.myappraisalinstitute.org/education/course_descrb/Default.aspx?prgrm_nbr=826&key_type=C0

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 ADDRESS: _____

Buyer Template Letter

Modify to describe Passive House

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

Buyer Template Letter

What You Need To Know Regarding the Loan/Appraisal Process

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 home 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).

Lender Template Letter

Modify to describe Passive House

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 (2012 IECC)
- 2015 International Energy Conservation Code (2015 IECC)

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

Lender Template Letter

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 at:

http://www.myappraisalinstitute.org/findappraiser/green_sustainability_residential.aspx. 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 at:

http://www.myappraisalinstitute.org/education/course_descrb/Default.aspx?prgrm_nbr=826&key_type=CO

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 ADDRESS: _____

Appraised Value & Energy Efficiency: *Getting It Right* – The Bandwagon



Appraised Value & Energy Efficiency: Getting It Right – Home Performance Contractors

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 saving features and equipment (e.g., air and duct sealing, insulation, and high-efficiency heating, ventilation, and air conditioning equipment) as desirable features for which buyers are willing to pay more. The home may also have an addition built to the 2012 or 2015 International Energy Conservation Code (2012 IECC or 2015 IECC), which would make the addition between 15 and 16 percent more efficient than if built to previous codes.

However, energy efficiency may 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.

To ensure that a home's green and/or energy efficient features and equipment are taken into account during an appraisal, it is important to document the home's energy efficiency features in a standard format. This documentation may be completed as part of an energy upgrade through a program such as the Department of Energy's Home Performance with ENERGY STAR® program or as part of the generation of a recognized energy performance score, such as a Home Energy Score (HEScore), a Home Energy Rating System (HERS) index, or other metric. It is also important for homeowners to choose an appraiser that is qualified to value the green and/or energy efficiency features of a high performing, energy efficient home in the local real estate market.

A Ready-Made Solution Exists

Fannie Mae, Freddie Mac and Federal Housing Administration require appraisers to consider the energy efficient features of the home. There are many specially-trained appraisers who are qualified to assess the value of these features that are often hidden behind the drywall.

What Can Contractors Do?

Contractors can help clients ensure that a qualified appraiser is selected by doing the following things:

1. Complete and provide homeowners with the Residential Green and Energy Efficient Addendum, available at <http://www.appraisalinstitute.org/assets/1/7/Interactive820-04-ResidentialGreenandEnergyEfficientAddendum.pdf>.
2. Provide homeowners with a copy of a completed third-party-certified inventory of home's energy efficiency features in a standard format, such as a certificate that conforms to the Building Performance Institute's 2101-S-2013 Standard Requirements for a Certificate of Completion for Residential Energy Efficiency Upgrades, available at <http://www.bpi-online.com/wp-content/uploads/2017/01/BPI-2101-S-2013-Standard-Requirements-for-Certificate-of-Completion-for-Residential-Energy-Upgrades-2013-09-03.pdf> and/or a copy of a completed report with a HERS rating, HEScore, or other recognized energy performance score (if available).
3. Prepare the homeowner to notify the lender that they require an appraiser that is qualified to value energy efficient, high performing homes. Add your logo, the property address, and contact information to the letter for Lenders. Direct your client to give the letter (along with information outlined in the bullets above) to their lender.



For Buyers

ENSURING A QUALIFIED APPRAISER FOR YOUR HOME

Your home has higher energy efficiency or green standards than many others on the market because you or a previous owner implemented a whole-house energy upgrade, or installed green or high-efficiency equipment and features. Homes like yours typically perform better than homes built during the same period or earlier. Your home may be more healthy and comfortable to live in, and will likely have lower monthly energy bills than comparable homes without these features. Some of your home features may include:

- More wall and ceiling insulation to keep conditioned air inside your home
- Windows that keep the heat out in the summer months to improve comfort
- Fewer drafts and air leaks, which improve indoor comfort and reduce energy costs
- High-efficiency heating, ventilation, and air conditioning ("HVAC") equipment and sealed ducts, which reduce energy consumption and increase comfort by distributing heated and cooled air evenly through the home

What You Need to Know Regarding the Loan/Appraisal Process

Some lenders randomly assign an appraiser to estimate the value of a home. However, yours is not a typical home because it is a high-performing building or one with unique green or high-performance features. Fannie Mae, Freddie Mac and Federal Housing Administration require appraisers to be qualified to appraise the specific property in the assignment. To ensure that the appraiser takes your home's unique features into account, you should clearly identify the property as a special property type, which requires an appraiser qualified in the valuation of energy efficient, high-performing homes.

What You Need to Do

Provide your lender with one or more of the following information provided to you by the builder, retrofit contractor, homeowner, energy rater, green certification, or Home Energy Rating System ("HERS") report:

- The lender letter regarding this special property type and the need for an appraiser qualified to value energy efficient, high-performing homes.
- A third-party-certified inventory of the home's energy efficiency features in a standard format, such as a certificate that conforms to the Building Performance Institute's 2101-S-2013 Standard Requirements for a Certificate of Completion for Residential Energy Efficiency Upgrades, available at <http://www.bpi-online.com/wp-content/uploads/2017/01/BPI-2101-S-2013-Standard-Requirements-for-a-Certificate-of-Completion-for-Residential-Energy-Upgrades-2013-09-03.pdf>.
- A recognized energy performance score, such as a Home Energy Score, a HERS rating, or other metric such as those listed on the Lawrence Berkeley National Laboratory's Information Atlas for Appraising Green and High-Performing Buildings, located at: <https://sites.google.com/site/appraisingbuildings/energy-topics/rating-systems>.



For Lenders

Dear Lender,

The home located at: _____ is a special property type. It has green and/or energy efficient, high-performing features that may include:

- Existing home that has received an energy upgrade through a program such as the Department of Energy's Home Performance with ENERGY STAR® program
- Existing home with green, energy efficient or other high-performing features such as high-efficiency HVAC equipment, high-quality insulation, air or duct sealing, and similar features
- An addition built to the 2012 or 2015 International Energy Conservation Code (2012 IECC or 2015 IECC)

Description of energy efficient and/or green features:

A completed copy of the Residential Green and Energy Efficient Addendum, and the energy report (if available, or two years of utility bills) should be included with the appraisal engagement letter. Fannie Mae, Freddie Mac and Federal Housing Administration require lenders to choose appraisers properly qualified to value the green and/or energy efficiency features of a high performing, energy efficient home in the local real estate market.

You can access a list of appraisers who may have those qualifications at the Valuation of Sustainable Buildings Professional Development Program Registry, available at: http://www.appraisalinstitute.org/findappraiser/green_sustainability_residential.aspx.

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 at: http://www.appraisalinstitute.org/education/course_descrb/Default.aspx?rgm_nbr=826&key_type=CO.

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:

NAME: _____
 PHONE: _____
 EMAIL ADDRESS: _____

http://www.homeperformance.org/sites/default/files/Appraised%20Value-Retrofit%20FINAL_0.pdf

Appraised Value & Energy Efficiency: Getting It Right - For Realtors®



Appraised Value and Energy Efficiency: Getting it Right

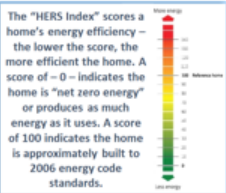
While location, design, and price are a home buyer's main considerations, surveys show that buyers rank energy efficiency as one of the most desirable features, and importantly, when there is sufficient energy savings - one they're willing to pay more for¹. However, energy efficiency can be overlooked in the appraisal and/or listing process for a variety of reasons, including a lack of access to data, underwriting impediments, and appraiser or agent qualifications. Many appraisers and/or agents may not be aware of the unique features or benefits of an energy efficient home. However, many appraisers and real estate agents are qualified to identify these features that are often hidden behind drywall. One way to peg the efficiency of a home is to know which energy code it was built to, or ask the homeowner if the home has earned an energy or green certification. A quick address search of the RESNET HERS Index database is a good place to start. If rated July 2012 or later, the RESNET registry will reveal the home's HERS Index.

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. They will typically be more comfortable to live in, have better overall performance, and lower monthly energy bills.

Fannie Mae, Freddie Mac and FHA 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. Often, appraisers won't take energy efficient and green features into account if they aren't aware of them. This is where the listing agent must be sure that such features are accurately identified in searchable MLS fields and appropriate documents attached for potential buyers and appraisers to review.

A ready-made solution exists.

Fannie Mae², Freddie Mac³ and FHA⁴ require lenders to choose appraisers who have the requisite knowledge required to perform a professional quality appraisal for the specific geographic location and/or who are competent to appraise a particular property type. The Uniform Standards of Professional Appraisal Practice (USPAP) promulgated by the Appraisal Standards Board (ASB) of The Appraisal Foundation defines "competence" requirements for appraisers where USPAP is applicable.



The "HERS Index" score a home's energy efficiency – the lower the score, the more efficient the home. A score of 0 – indicates the home is "net zero energy" or produces as much energy as it uses. A score of 100 indicates the home is approximately built to 2006 energy code standards.

FOR BUYERS ENSURING A QUALIFIED APPRAISER FOR YOUR HOME

Your home has higher energy efficiency or green standards than many others on the market. It should be more comfortable to live in and have lower monthly energy bills. Homes built to the 2015 International Energy Conservation Code (IECC) and the current Vermont Residential Building Energy Standard, are 15-16% more efficient than those built to the 2009 code. Some of your home features may include:

- More wall and ceiling insulation to keep conditioned air inside your home
- Windows that keep the heat out in the summer months to improve energy efficiency
- Fewer drafts and air leaks, which improve indoor comfort
- Or, you may have a home built well before the new code but have had green retrofits that makes your home more efficient than other homes in the same time frame.

What You Need To Know Regarding the Loan/Appraisal Process

Some lenders may only assign an appraiser to estimate the value of a home that is not a typical home if it is a higher-performing building or one with unique green features. Fannie Mae, Freddie Mac and FHA require that appraisers be appropriately qualified to appraise specific property in the assignment. If you do not clearly identify the proper property type requiring an appraiser properly qualified in the valuation of a high-performance home, you may risk that an appraiser without the necessary qualifications is chosen and that appraiser may not take these features into account.

What You Need to Do

Provide your lender with these things provided to you by the builder, home energy certification, or complete HERS Report:

- The lender letter regarding this special property type and the need for an appraiser properly qualified to value energy efficient, high-performing homes
- The Appraisal Institute's Residential Green and Energy Efficiency Addendum (if available)
- The Home Energy Rating System (HERS) Report (if available)
- Vermont Home Energy Profile and/or Home Energy Score Report (Applicable for existing homes only).
- Documentation certifying any 3rd party verified building certification

FOR LENDERS

Dear Lender,

The home located at: _____ is a special property type. It is a green, and/or energy efficient, high-performing home as shown below:

- 2015 International Energy Conservation Code (2015 IECC) - the current Vermont Residential Building Energy Standard
- Existing home with Energy/Green Retrofits

Description of energy efficient and/or green upgrades:

A copy of the Green and Energy Efficient Addendum form, and the energy report (if available, or two years of utility bills) should be included with the appraisal engagement letter. Fannie Mae, Freddie Mac and FHA require lenders to choose appraisers properly qualified to value the green and/or energy efficiency features of a high performing, energy efficient home in the local real estate market.

You can access a list of appraisers who may have those qualifications at the Valuation of Sustainable Buildings Professional Development Program Registry, available at:

www.myappraisalinstitute.org/findappraiser/green_sustainability_residential.aspx

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 at:

www.myappraisalinstitute.org/education/course_detail/Default.aspx?prgrm_nbr=826&key_type=CO

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:

NAME: _____
 PHONE: _____
 EMAIL ADDRESS: _____

¹ <http://fcap-energy.org/homebuyer-demand-for-energy-codes/>
² <http://www.fanniemae.com/content/guide/sect123514.pdf#page=590>
³ http://www.freddie.com/singlefamily/appraiser_independence_sq.htm#R30
⁴ <http://portal.hud.gov/hudportal/documents/huddoc?id=4002115G4.pdf#page=73>

No Registry listed appraisers in your market, no one known with knowledge and experience?

Interview the appraiser when they call to schedule an appointment or with questions about the documentation you've provided.

A Leading Appraiser's Suggested Questions

Ask about the appraiser's qualifications before the appraisal begins,

or your client could face the cost of two appraisals.

- How many hours of energy efficiency and green building education has the appraiser completed?

Adomatis feels that 14 hours is appropriate based on AI's "green" courses. Unfortunately, it is unlikely that many appraisers have that many hours yet.

- What is their actual experience appraising green homes?

A Leading Appraiser's Suggested Questions

- Is the appraiser familiar with the AI *Addendum*?
- How will the appraiser assign value to the AI *Addendum* defined green categories: “(1) site, (2) water, (3) energy, (4) materials, (5) indoor air quality, & (6) maintenance and operation?”
- Ask if the appraiser uses net present value to calculate the energy savings revenue stream, what are the assumptions, methodology and duration for the savings?
- Does the appraiser subscribe to the local MLS?

If no, this causes concerns about competency above & beyond energy efficiency & green building.

A Leading Appraiser's Advice

- Provide the AI *Addendum* and attachments to the appraiser before beginning the site visit of the subject property.
- Someone knowledgeable about the efficiency and green features in the home should accompany the appraiser to clarify, elaborate, and answer the appraiser's questions.
- If you are selling the home, have your listing agent attach to the MLS listing the AI *Addendum* and other documents previously itemized.

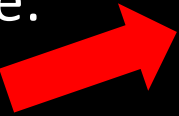
Challenging an Appraisal



Challenging an Appraisal

Challenges must be:

- in writing
- based on error of fact(s) or omission
- based on inconsistencies
- addressed with the lender directly
- addressed in a timely manner
- and cannot be based on – “I don’t like the value of the appraisal!”



Ask for a “**Reconsideration of Value,**” a formal request that lenders must track & respond to.

Do not approach the appraiser directly – you are not the appraiser’s client. The lender is.

Sandra Adomatis, SRA, LEED GA

We Need Everyone on the Same Page



Outreach to and education of prospective owners, architects, and builders is not enough to move Passive Houses into the mainstream

To get there appraisers, lenders, and real estate agents need data and training to recognize and realistically value energy efficiency and renewable energy benefits

How do we make energy efficiency visible to real estate professionals and to more of their clients?



Unlocking the Value of an Energy Efficient Home

A Blueprint to Make Energy Efficiency Improvements Visible in the Real Estate Market

The Visible Value Blueprint

August 2013

a blueprint contributed to by the...

 Vermont Green Home Alliance
Vermont Green Home Council

Unlocking the Value of an Energy Efficient Home

Step 7

Work with partner financial institutions to ensure selection of qualified appraisers.

This paper highlights dependencies and opportunities between energy efficiency programs and other professionals involved with a real estate transaction. This dependency is very clear when looking at opportunities with financial partners. The more streamlined and consistent documentation flows from energy efficiency programs, the more opportunities financial partners have to improve how they work.

One key example is the process by which qualified appraisers are assigned to efficient home valuations. Another addresses the process constraints which often limit the time and attention on efficient homes during the underwriting process and may result in a lower assessment of the value of improvements.

Consistent documentation can influence the process for assigning qualified appraisers to efficient home valuations. For example, if a BPI-2101 compliant certificate is available at scale in a given market, it might be used as a trigger to require specific qualifications of the appraiser assigned.

Likewise if the same documentation is available during the manual underwriting review process, underwriters would become accustomed to the information provided and the quality of the verification behind it. The step of reviewing a standard efficiency document might become part of the review checklist, thus increasing the chance that the appraiser's opinion of value related to energy efficiency improvements will be accepted.

See the supplemental section at the end of this paper for further details on the current situation and the constraints and opportunities for both appraiser assignment and manual underwriting review.



Navigating Appraiser Assignment: Vermont Green Homes Alliance

The Vermont Green Homes Alliance (VGHA) is a collaborative of state trade groups including builders, mortgage bankers, appraisers, Realtors, and MLSs. The alliance provides a leading



example of how the appraiser assignment process can be recalibrated to better ensure a competency match. VGHA is working through the trade organizations to map out a process where a completed Green and Energy Efficiency Addendum will act as a trigger for assigning the right appraiser.

Vermont Green Home Alliance (VGHA)

The VGHA is an informal alliance of collaborating trade organizations and businesses that operates on a consensus basis.



Vermont Green Home Alliance

- Association of Vermont Credit Unions
- Building Performance Professionals Association of Vermont
- Efficiency Vermont
- Energy Futures Group
- Vermont Builders & Remodelers Association
- Little River Realty
- New England Federal Credit Union
- New England Real Estate Network (MLS)
- New Hampshire/Vermont Chapter of the Appraisal Institute
- Sterling Homes
- SunCommon
- Turtle Creek Builders Ltd
- U.S. Department of Agriculture, Rural Development, Housing Programs
- Vermont Association of Professional Home Inspectors
- Vermont Association of Realtors®
- Vermont Energy Investment Corporation
- Vermont Green Building Network
- Vermont Housing Finance Agency
- Vermont Passive House
- Vermont State Employees Credit Union

Vermont Green Home Alliance *Mission*

Transformation of the real estate market so that buyers and sellers can identify and accurately value energy efficiency and renewable energy benefits.

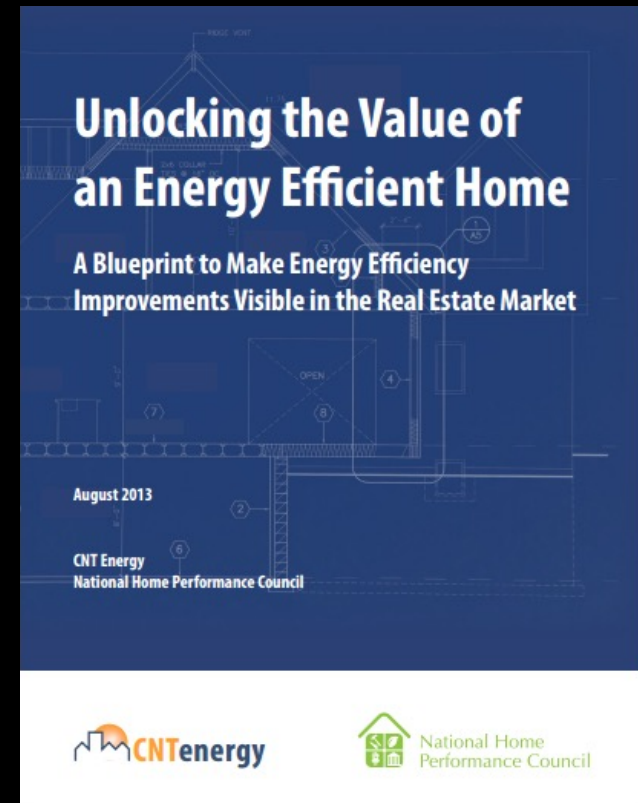




"Politicians discussing global warming."
Sculpture by Isaac Cordal

Prevailing National Strategy

Explanation of national efforts to coordinate communications between the building and energy efficiency community and the real estate, lending, and appraisal professions utilizing the “**Greened MLS**” as a common data repository.



www.elevateenergy.org/wp/wp-content/uploads/2014/01/Unlocking_the_Value_an_Energy_Efficient_Home.pdf

Visible Value Blueprint: 7 Steps

1. **Document** energy efficiency features and improvements using consistent, standardized methods.
2. **Disclose inventories** of energy efficient homes to track supply.
3. Capitalize on existing (**and/or create**) **high-quality continuing education** and **designation training**.
4. Work with the **MLS** community to ensure that **data** about home energy efficiency improvements are incorporated **into for-sale listings**.
5. Ensure that the **data** about home energy efficiency improvements are incorporated **into** the **appraisal process**.
6. Develop standards and **IT solutions** that allow quicker and more **automated transfer of data**.
7. Work with partner **financial institutions** to ensure selection of **qualified appraisers**.

Vermont Green Home Alliance



Implementing all
*Visible Value
Blueprint* steps
simultaneously.

Visible Value Blueprint

How does the Passive House Architect, Builder, or CPHC fit in?



Visible Value Blueprint and You

What matters, what you can control, what you can do:

1. **Document** energy efficiency features and improvements using consistent, standardized methods.
4. Work with the **MLS** community to ensure that **data** about home energy efficiency improvements are incorporated **into for-sale listings**.
5. Ensure that the **data** about home energy efficiency improvements are incorporated **into** the **appraisal process**.
7. Work with partner **financial institutions** to ensure selection of **qualified appraisers**.

Document energy efficiency features and improvements using consistent, standardized methods.

Appraisal Institute's Residential Green and Energy Efficient Addendum

Passive House and/or other 3rd party verified building/green building certificates

e.g. ENERGY STAR® Home, LEED for Homes, National Green Building Standard, etc.

Home Energy Rating Report

PV Value Report (when applicable)

Code compliance certificate

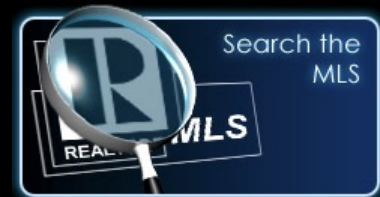
Incremental cost for Passive House construction versus code

Get in the MLS

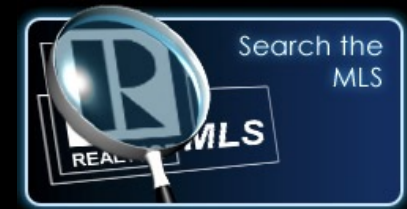
The Multiple Listing Service (MLS) is your area's real estate database



Its brain!!!



Real Estate Is Local (The MLS)



Usually, independent organizations owned and operated by local Boards of Realtors®

The MLS displays homes for sale and sold

Users can search for many home features; however...

Many of the ~600 MLS across the country, don't have "Green Features" or energy performance data

However, many in the top metro markets have now implemented "Green Features"

The MLS is also an important tool used by appraisers to find "comparable" value homes from actual sales data

Work with the **MLS** community to ensure that **data** about home energy efficiency improvements are incorporated into **for-sale listings**.

How do you get
Passive House into
that MLS brain?



“Two roads diverged in a yellow wood...”

The Road Not Taken, Robert Frost

Those roads in this instance are:

1. those with “green fields” in their MLS
2. those without

Don't get cocky those with green fields

Little data entry

Lots of inaccuracy

Greenwashing

Those without...

Find allies



Vermont's Approach to Market Transformation – 1st round allies

- Created an alliance with local construction allies



Vermont's Approach to Market Transformation – 2nd round RE pros

Expanded the alliance to include local appraisers, lenders, and Realtors[®] through their trade associations

Educated them about the HERS Index, 3rd party verified building certifications, building science, and energy economics

The appraisers, lenders, and Realtors[®] schooled us energy geeks on our failings too!

Identified local NAR Green Designated Realtors[®] and EcoBrokers and enlisted their support prior to engaging our MLS (some are on our local MLS Board)

Appraisers and Realtors[®] are MLS subscribers; you're not

Vermont's Approach to Market Transformation – 3rd step MLS

Approached our MLS to request green fields

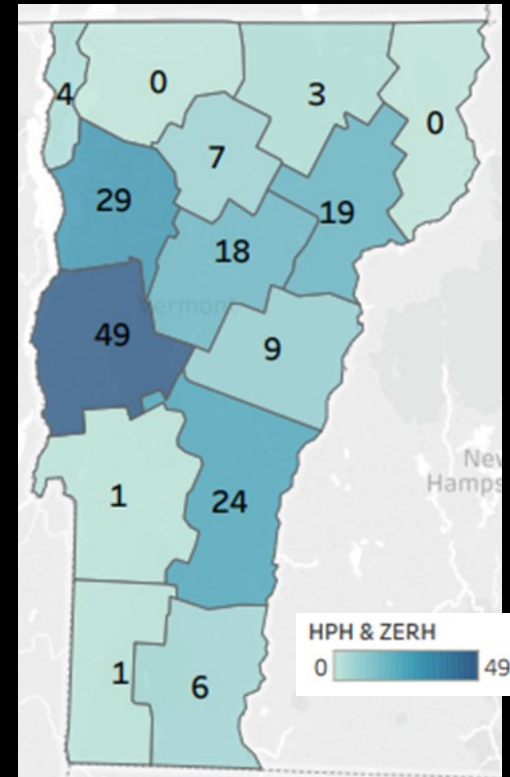
The screenshot shows a web browser window displaying the NEREN MLS website. The browser's address bar shows the URL <https://www.neren.com>. The website header includes the NEREN MLS logo (New England Real Estate Network) and navigation links for Home, Search, Find an Agent, and Collections. A 'Sign In or Register' link is also present. The main content area features a large, bright photograph of a living room with a yellow sofa and large windows overlooking a lake. Overlaid on this image is the text 'OFFICIAL WEBSITE OF THE NEREN MLS' and a search bar with the prompt 'Search for Property'. Below the search bar is a search input field with the placeholder text 'Search By State, County, City, Zip, MLS ID' and a search button with a magnifying glass icon and a 'More Options' link. At the bottom of the page, there are three promotional banners: 'NEW LISTINGS' with the subtext 'Come back everyday to see what has just come on the MLS.', 'UPCOMING OPEN HOUSES' with the subtext 'Take a tour of homes for sale near you.', and 'OPEN HOUSES'. The Windows taskbar at the bottom shows various application icons and the system clock indicating 12:22 PM on 9/17/2017.

Vermont's Approach to Market Transformation – 2nd step MLS Outreach - Disclose inventories of energy efficient homes to track supply

Show that the local trend is to
improve efficiency via disclosing
the energy efficient home
inventory

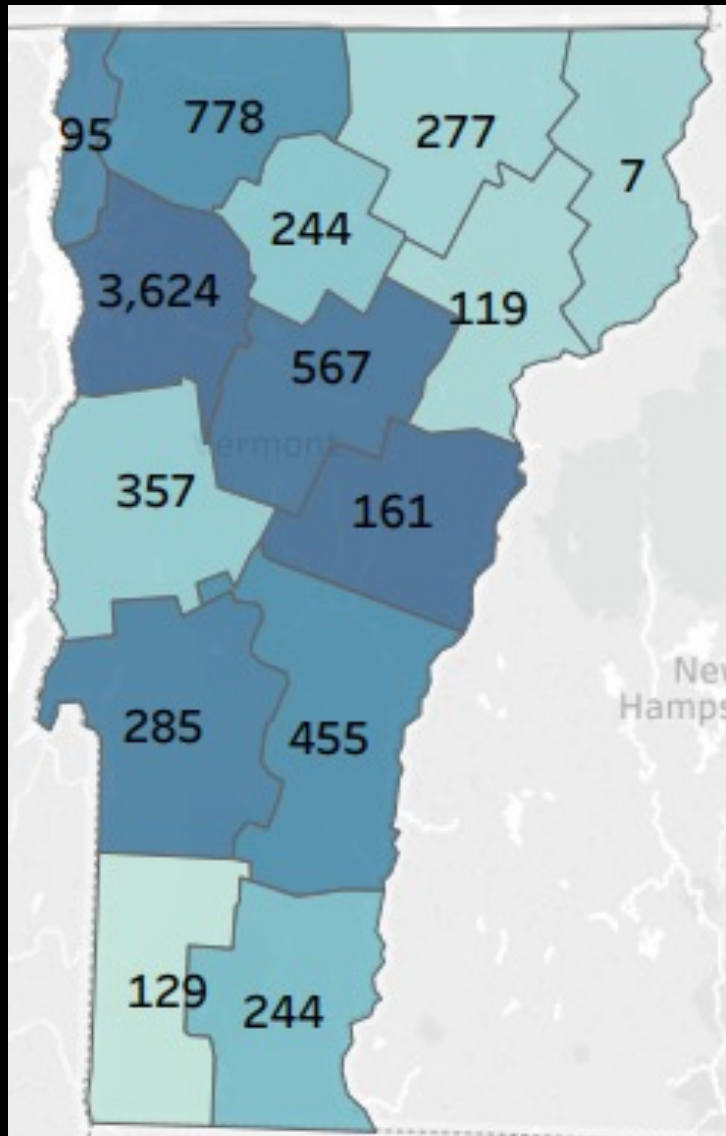
Verified energy information in
an MLS reduces liability and
elevates homebuyer
confidence...

even when a home's efficiency
isn't great.



170 3rd Party Certified High Performance
and U.S. DOE Zero Energy Ready New
Homes Statewide (2013-Sept. 2019)

Market Penetration and Total Count of 3rd Party Certified New Homes by County 2000-2019



Percent Certified



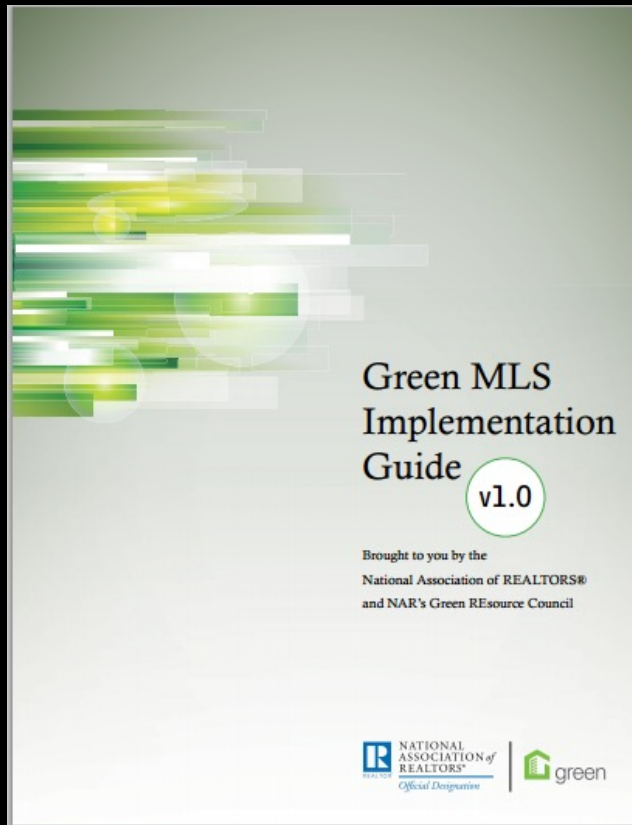
8%

37%

- Over 7,000 New Homes 3rd Party Certified Statewide (2000-Sept. 2019)
- Color shows 3rd Party Certified Percent of New Homes
- Number shows 3rd Party Certified New Homes (2000-Sept. 2019)

Help from the top

NAR Tools for Approaching the MLS



Green MLS Implementation Guide

This Guide is for MLS professionals to use to ensure that data fields and entries conform to the **Real Estate Standards Organization (RESO) Data Dictionary**

RESNET, BPI, AI Addendum, lender documents, etc. all to conform, eventually

<http://greenresourcecouncil.org/sites/default/files/2014%20NAR%20Green%20MLS%20Implementation%20Guide.pdf>

New England Real Estate Network - MLS 3rd Party Verified Green Fields

(403) Green Verification Progrm

(402) Green Verification Body

(405) Green Verification Status

(406) Green Verification Year

(404) Green Verification Rating

(404) Green Verification Metric

(408) Green Verification New Construction

(407) Green Verification URL


100 characters left.



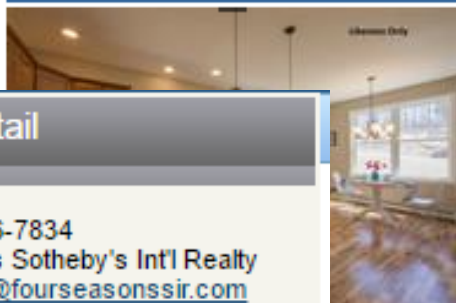
New England Real Estate Network – 3rd Party Verified Green Programs Drop-Down Selection List:

(403)	Green Verification Program	
(402)	Green Verification Body	Blower Door Test
(405)	Green Verification Status	ENERGY STAR Certified Homes
(406)	Green Verification Year	EnerPhit
(404)	Green Verification Rating	HERS
(404)	Green Verification Metric	Home Energy Score
(408)	Green Verification New Construction	Home Performance with ENERGY STAR
(407)	Green Verification URL	Indoor airPLUS
		LEED for Homes
		NGBS New Construction
		NGBS Small Project Remodel
		NGBS Whole-Home Remodel
		OTHER
		Passive House (PHIUS+)
		Residential New Construction Services
		Vermont Home Energy Profile
		WaterSense
		Zero Energy Ready Home (DOE Challenge Home)

100 characters left.

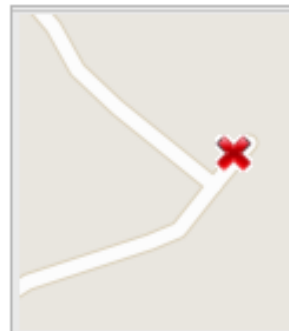


RESIDENTIAL / SINGLE FAMILY



MLS # 4614508
 Price \$398,250
 Listing Status Active
 Remarks - Public

Welcome to Nature's Way where award winning Sterling Homes VT is building homes for today's lifestyle. Our to be built Juniper II colonial offers a bright open floor plan featuring 9 ft ceilings on 1st floor & expansion space above the garage. Unfinished full basement with egress window & plumbed for future bathroom awaits your personal finishes. Lower operating costs, healthier homes, & sustainability are achieved & documented using the National Green Building Standards through certification by Efficiency VT. Customizing house plans to suit your needs is a part of the Sterling Construction new home program. Other lots & house designs available. All are sunny, bright, surrounded by mature trees & privacy. These homes feature natural gas heat, municipal water & sewer, neighborhood pool, and bike path coming soon. Conveniently located minutes to schools & shopping.



Agent Detail

Geri Barrows
 Direct: 802-846-7834
 Four Seasons Sotheby's Int'l Realty
geri.barrows@fourseasonsir.com
<http://www.fourseasonsir.com>



Views

All Fields Customizable ▾

ENERGY EFFICIENCY FEATURES

Green Verification Program	NGBS New Construction
Green Verification Body	Home Innovation Research Labs
Green Verification Status	Preliminary
Green Verification Year	2,018
Green Verification Rating	Silver
Green Verification Metric	
Green Verification New Construction	Yes
Green Verification URL	www.homeinnovation.com/green

Green Verification Program 2	HERS
Green Verification Body 2	RESNET
Green Verification Status 2	Preliminary
Green Verification Year 2	2,018
Green Verification Rating 2	
Green Verification Metric 2	58
Green Verification NewCon 2	Yes
Green Verification URL 2	www.resnet.us
Green Verification Program 3	Residential New Construction Services
Green Verification Body 3	Efficiency Vermont
Green Verification Status 3	Preliminary
Green Verification Year 3	2,018
Green Verification Rating 3	Certified
Green Verification Metric 3	
Green Verification NewCon 3	Yes
Green Verification URL 3	www.efficiencyvermont.com



Capitalize on existing (and/or create)
high-quality continuing education and
designation training.

Help from the top

The National Association of Realtors® rolled out their **Green Designation** in 2008.

Out of 1.2 million Realtors® (NAR members), among the 2 million active licensed real estate agents in the U.S.), ~3,650 currently have earned the NAR Green Designation.

Amanda Stinton, Director of Sustainability, National Association of Realtors®



High Performance Homes
are in Every Market

Earn NAR's Green Designation to gain a competitive edge.

Through this two-day program, you'll gain an understanding of:



Buyers' and sellers' changing expectations about energy and home performance



How properties with green features can sell for more



Marketing the benefits of high performance features and smart home technology



The advantages of a sustainable business model

Take the course:

Get started today! Learn more at GreenREsourceCouncil.org



Vermont's Approach to Market Transformation – Education Collaboration

VERMONT'S PREMIER GREEN REAL ESTATE EVENT

THE GREEN SYMPOSIUM FOR REAL ESTATE

OCTOBER 23, 2019

9AM-1PM // KILLINGTON MOUNTAIN RESORT



Green is the new, well . . . Green

The “future” of green homes, green buildings and green living has arrived. Meeting the demands of this fast-paced, global way of living is essential for all real estate professionals!

How is “green” changing the way we do business?

The Green Symposium for Real Estate will tackle the challenges and opportunities that our industry faces as new technologies, new trends and new consumer demands increase for green homes.

- ☞ What does this mean for the multiple listing service (MLS)?
- ☞ How do Realtors® gain the expertise they need to help buyers and sellers in this new market?
- ☞ How do appraisers determine the value of green homes?
- ☞ How do contractors, property inspectors and mortgage lenders adjust to emerging trends?

REGISTER TODAY

vermontrealtors.com/green19

Early bird registration – \$99
Early-bird registration ends Sept. 1
Registration after Sept. 1 is \$125

EVENT OVERVIEW

8am Registration
9am Concurrent Sessions

- Efficiency Excellence
- Financing Clarity for Energy Efficient Homes

12 pm LUNCH
- VAR Annual Meeting
- Installation of 2020 Officers
- REALTOR® of the Year
- Good Neighbor of the Year

1-4pm Concurrent Sessions
continue

OUR SPEAKERS

Amanda Stinton, Director
Leadership & Sustainability & Member
Development, NAR

Craig Foley, Chair
Sustainability Advisory Group, NAR

Robert B. Lynch, SRA SVP,
Chief Appraiser
United Valuation Group

Meg Garabrant, Director
Marketing & Communications, NEREN

Held in Vermont in 2015, 2017, & 2019 the Symposium is a financial success for Vermont Realtors®

It also inspired the NH Assoc. of Realtors® to conduct a similar Symposium in March 2017 & 2019

Continuing education credits are key!

Vermont's Approach to Market Transformation – Appraiser Support

- VGHA members have supported the Appraisal Institute's *Valuation of Sustainable Buildings Professional Development Program* to gain more *Registry* listings of competent appraisers.
- VGHA provided direct mail marketing for these courses and resource information for attendees.
- VGHA members have underwritten course costs and paid incentives for acquiring a Registry listing.



Work with partner financial institutions to ensure selection of qualified appraisers.

Vermont outreach examples



All Souls Interfaith Gathering - Photo: Sally McCay

FIND AN ARCHITECT

- [View by City/Town](#)
- [View by Firm Name](#)

CURRENT JOBS

The Vermont Green Home Alliance, through its member associations, is distributing *Appraised Value and Energy Efficiency: Getting It Right* to building design professionals, builders, home performance contractors, appraisers, lenders, and real estate agents.

This short online article explains to real estate professionals and lenders why the appraisal of high performance homes is a complex appraisal assignment and, for architects, builders, and home performance contractors, how to proactively prepare customers for loan applications and appraisals. [More...](#)

The Vermont Green Home Alliance is distributing *Appraised Value and Energy Efficiency: Getting It Right* to building design professionals, builders, home performance contractors, appraisers, lenders, and real estate agents.

This short online article explains to real estate professionals and lenders why the appraisal of high performance homes is a complex appraisal assignment and, for architects, builders, and home performance contractors, how to proactively prepare customers for loan applications and appraisals. [More...](#)

THANK YOU TO OUR WEB SITE PARTNERS



- [Current AIAVT News](#)
- [Web Links](#)

ARCHISTREAM MOBILE GALLERY & EDUCATION CENTER FOR SALE

Outreach to Homebuilders

Re: Appraised Value & Energy Efficiency



Thu 5/26/2016 11:23 AM

HBRANV Education Committee <hbra@vtbuilders.ccsend.com> on behalf of HBRANV Education Committee
Appraised Value & Energy Efficiency

To vtwise@together.net



**Home
Builders and
Remodelers
Association
OF NORTHERN VT, INC.**

Vermont Green Home Alliance



Home Builders
and Remodelers
Association



Appraised Value and Energy Efficiency: Getting it Right.

The Vermont Green Home Alliance, through its member associations, is distributing **Appraised Value and Energy Efficiency: Getting It Right** to building design professionals, builders, home performance contractors, appraisers, lenders, and real estate agents.

We want all to have an opportunity to prepare for the increasing level of high performance new home construction and existing home energy efficiency improvement happening in Vermont.

Developed by the Appraisal Institute and Building Codes Assistance Project (and since endorsed by the National Association of Home Builders), this short piece explains to real estate professionals and lenders why the appraisal of high performance homes is a complex appraisal assignment and, for Architects, builders, and home performance contractors, how to proactively prepare customers for loan applications and appraisals.

Course on Valuating Solar Promoted by VT Green Home Alliance

ASSOCIATION
of
VERMONT
CREDIT UNIONS



The Vermont Green Home Alliance is promoting a course to aid lenders, appraisers and others in the [*Residential & Commercial Valuation of Solar*](#) (read more or register via the link). It is one of three courses required for a listing on the Appraisal Institute's [*Valuation of Sustainable Buildings Professional Registry*](#) (appraisers do not need to be Appraisal Institute members to be Registry listed). Participation in the April 28th-29th course in Concord, NH provides 15 continuing education credits in Vermont and New Hampshire.

In an effort to help lenders, builders and others prepare for increasing levels of high performance new home construction and energy efficiency, the Vermont Green Home Alliance is also distributing [*Appraised Value and Energy Efficiency: Getting It Right*](#). Developed by the Appraisal Institute and Building Codes Assistance Project (and endorsed by the National Association of Home Builders), this short piece explains to real estate professionals and lenders why the appraisal of high performance homes is a complex appraisal assignment and, for architects, builders, and home performance contractors, how to proactively prepare customers for loan applications and appraisals.

AVCU is a member of the Vermont Green Home Alliance, which is an alliance of collaborating trade organizations and businesses working to educate real estate professionals and related persons about energy issues and to share accurate energy efficiency and green building information with the real estate market.

Vermont Mortgage Bankers Association

Home News and Links Events Education CMP Legislation Membership Sponsors

Contact us:
Vermont Mortgage Bankers Assn.
866-680-8622

[Mortgage Bankers
Association Issue Briefs](#)

Important LINKS

[Appraised Value and Energy Efficiency](#)

[VT Transfer Tax Chart, June 2015](#)

[CFPB Resources for RESPA/TILA Implementation 11/14](#)

[MBA 2014 Economic Forecast & Analysis](#)

[MBA Vermont State Facts, 3rd Qtr 2013](#)

[Link to Freddie/Fannie 2014 Limits](#)

[2014 Loan Limits - FHA Link to Document 13-43](#)

Promoting **Appraised Value and Energy Efficiency: Getting It Right**

Prospective Homebuyers

Homeowners

Rental Housing

Community Partners

- News
- Events
- Board of Commissioners Meetings
- Joint Committee on Tax Credits

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Receive the latest housing news from VHFA by email.

Enter Email:

>> Subscribe

Upcoming appraisal courses follow recent studies of energy efficient homes



Submitted by Leslie Black-Plumeau on September 22, 2016 - 2:21pm

In light of research documenting the lower default risks of mortgages for energy-efficient homes, the [Vermont Green Home Alliance](#) invites lenders and appraisers to consider two exciting courses scheduled for October 13-14, 2016 in Concord, New Hampshire:

- [Introduction to Green Buildings Principles & Concepts](#)
- [Case Studies in Appraising Green Residential Buildings](#)



The Alliance reports that using [Home Energy Rating Scores](#) (HERS), homes built to the 2015 International Energy Conservation Code (IECC)-required by Vermont's [Residential Building Energy Standards](#)--are 28-35% more efficient than those built to the 2009 IECC or earlier. Furthermore, a [national study](#) of 71,000 single-family mortgages found that "default risks are on average 32 percent lower in energy efficient homes, controlling for other characteristics."

Promoting Appraisal

Promoting AI Registry courses and supportive housing studies

Develop standards and IT solutions that allow quicker and more automated transfer of data.



Home Energy Label Information eXchange


HELIX

- A NE/NY regional energy data source for MLS auto-population.
- U.S. DOE Grant Funded project of the VT Dept. of Public Service.








Passive Certified Projects Database and MLS?

Help Make Passive Building Mainstream [Support PHIUS](#)  

 [About PHIUS](#) [What is Passive Building](#) [PHIUS Certification for Buildings & Products](#) [Become a Professional](#) [Find a Professional](#) [Software & Resources](#) [Media Resources](#) [Passive House Conference & Calendar](#)

Certified Projects Database [Login](#) (PHIUS Staff and PHIUS Certified Professionals)

No.	Project	Status	Lead CPHC	Builder	Location	Const. type	Bldg. function	Floor area	Project type	
1009	Center for Design Research (CDR)	Pre-certified	Ryan Abendroth	Studio 804 - Kansas University	Lawrence, KS	Timber	Government	2396	New Construction	
1073	Hickory Hall	Pre-certified	Adam Cohen	Mod-U-Kraf	Emory, VA	Timber	Commercial	29248	New Construction	
1077	HABITAT FOR THE 21ST CENTURY	Pre-certified	Robert Moore	Habitat for Humanity	Tacoma, WA	Timber	Single Family	1232	New Construction	
1085	Gaddy Passive House	Pre-certified	Michael Hindle	Maryland Custom Builders Inc.	Clarksville, MD	Timber	Single Family	1717	New Construction	
1095	1202 Idaho Street	Pre-certified	Christopher Gonzales	Habitat for Humanity of Gallatin Valley	Belgrade, MT	Timber	Single Family	1604	New Construction	
1117	The Passive-Agressive Home	Pre-certified	Vic Weber	Oak Tree Homes	Wilton, IA	Mixed timber-masonry	Single Family	3410	New Construction	
1120	Aamodt Passivhaus	Pre-certified		Homeowners	Carnation, WA	Timber	Single Family	1340	New Construction	
1121	Grant Residence	Pre-certified	Alan Abrams	Jos. Klockner & Co.	Derwood, MD	Timber	Single Family	1735	New Construction	

Auto-pop
for Passive
House?

Other organizations working on real estate market transformation...

Earth Advantage Portland, OR



GREEN BUILDING EDUCATION

ABOUT US

70% of Americans now say that energy efficiency is important in their daily lives. Industry professionals are finding they need up-to-date information on home systems, best practices, and valuation in order to serve their clients.

Earth Advantage education programs are focused on providing top quality learning and engagement via multiple delivery methods and topic areas to provide professionals with the knowledge, skills and tools they need to keep pace with current market trends.

COURSE TOPICS

- > Savvy Home Upgrades
- > Selling to Millennials
- > Smart Homes
- > Accessory Dwelling Units (ADUs)
- > Heating, Cooling, and Hot Water Systems
- > Water Wise
- > Solar PV
- > Zero Energy
- > Valuing Energy Improvements
- > Green Features & MLS Fields
- > Certifications & Energy Scores
- > Site Visits

TURNKEY SERVICES

- > Continuing education approval
- > Customized curriculum
- > Marketing templates
- > Administrative checklists
- > Registration management
- > Training for trainers
- > Instructor access to online platform
- > Training delivery
- > Administration of online quizzes, accreditation exam & course evaluation

DELIVERY OPTIONS

We make education easy and beneficial for education providers and busy professionals by offering online training, classroom learning, live webinars, and custom site visits to green homes.

REALTORS®

We offer a suite of classes and webinars that provide real estate professionals with info on how to effectively serve their clients by marketing and communicating green homes and upgrades.

APPRAISERS

Our appraiser coursework focuses on providing the latest data and tools regarding green and energy efficient homes in order to ensure proper valuation within the green home market.

BUILDERS

We train builders at every level of interest from beginners in the green space to advanced techniques in Zero Energy and Passive House.

DIRECTORIES & RESOURCES

Find professionals in your area that are certified by Build It Green. Our certified professionals can have a few different types of certifications, so make sure to filter by the ones that are relevant to you.

NARROW YOUR RESULTS

Sort by: Recently Updated

CERTIFICATION TYPE

GreenPoint Raters ?

- GreenPoint Rated Elements Rater
- GreenPoint Rated Existing Home Multifamily Rater
- GreenPoint Rated Existing Home Single Family Rater
- GreenPoint Rated New Home Rater

GreenPoint Advisors ?

- GreenPoint Rated Existing Home Single Family Advisor
- GreenPoint Rated New Home Advisor

General Certifications ?

- Certified Green Building Professional
- Certified Green Real Estate Professional

Other Certifications ?

- Accredited Green Appraiser
- Appraisal Institute Valuation of Sustainable Buildings, Residential Designation

FEATURED LISTINGS

Rose Henigman

OC Appraisals | Mission Viejo, CA



Certifications

Accredited Green Appraiser



(949) 246-7403



Contact user

[VIEW FULL PROFILE](#)

Rene Seabourne

San Diego, CA



Certifications

Accredited Green Appraiser

Appraisal Institute Valuation of Sustainable Buildings, Residential Designation
Building Performance Institute (BPI)



(858) 324-1880



Contact user

[VIEW FULL PROFILE](#)

Mike Rogers

Certifications

Build It
Green
Los Angeles
& Oakland,
CA



North Carolina Energy Efficiency Alliance

ABOUT | HOMEOWNERS | PROFESSIONALS | GREEN THE MLS | ENERGY CODE | RESOURCES | EVENTS

JOIN THE ALLIANCE



Market Performance

Certified Energy Efficient Homes across the country have proven to sell faster than conventional home and for a higher cost per square foot.

Money Savings

Energy-efficient, quality controlled features save homeowners up to 25% on utility bills! The HERS Report produced by a certified Home Energy Rater will estimate the home's energy usage and savings.

Home » Professionals

For Appraisers

A proliferation of standards, rating, and green building certification programs now exist in the marketplace to help guide and document efforts to build more sustainable, high-performance buildings. It can be challenging and time consuming to determine which programs are credible, beneficial, and add value.

What are the market impacts of third party certified homes and how do you determine the added value? The NCEEA has compiled data and reports to help appraisers value certified energy efficient homes.



▪ Download and use the Appraisal Institute's **Residential Green and Energy Efficient Addendum** to help analyze values of energy-efficient home features.

Appraiser Resources



"Analyzing the Value of Going Green"
Training and Resources

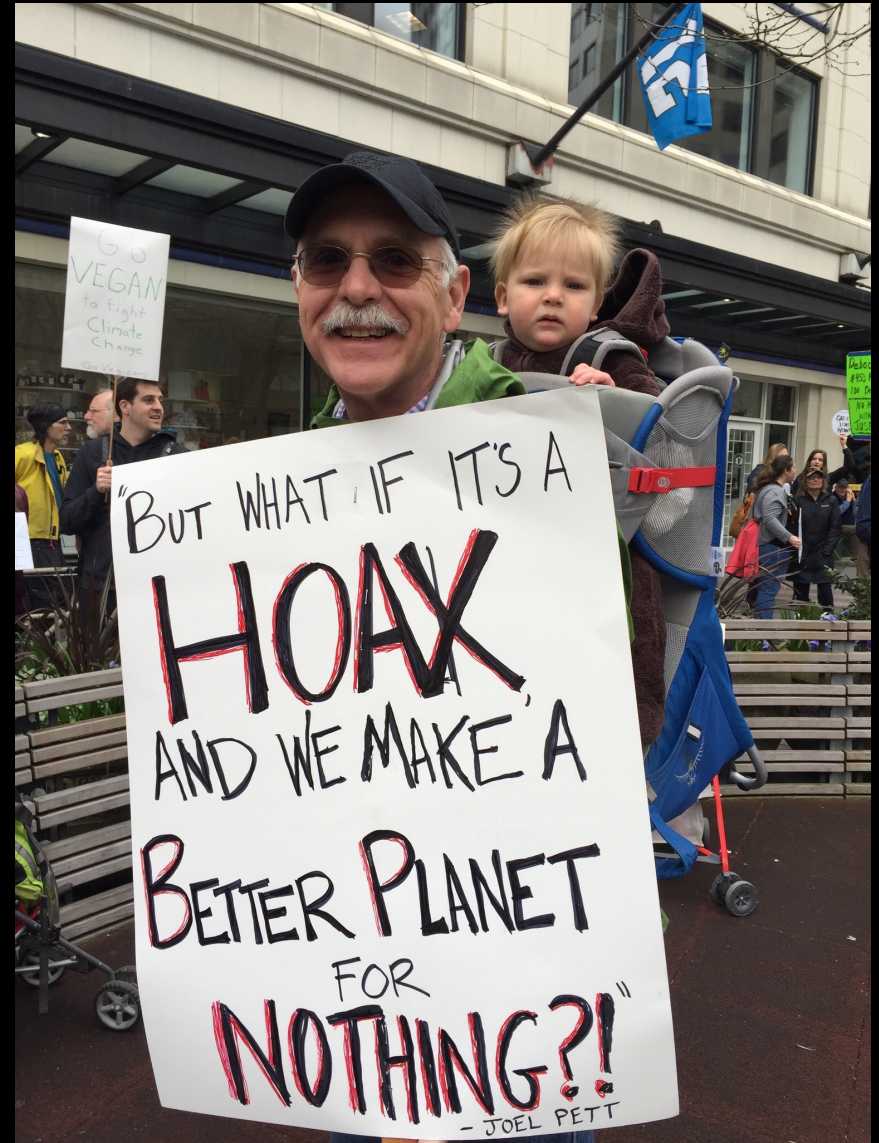
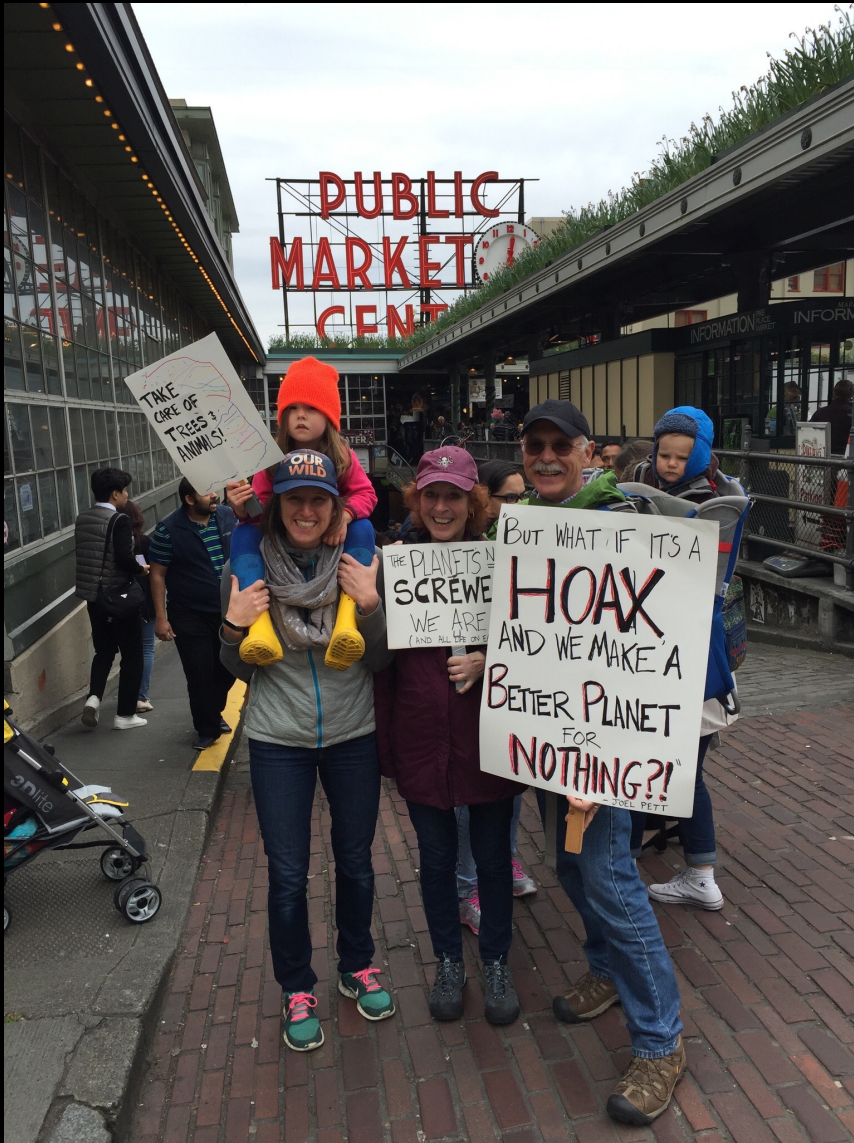
ENERGY STAR Market Impact Study



The NCEEA recently completed a study showing that ENERGY STAR Homes sell for more than Code-Built Homes and also sell faster! Read about the study and it's findings here

North Carolina Energy Efficiency Alliance, Boone, NC

Passive House professionals are advocates



Real Estate Is Local – We Can Fix It

After, 1st do no harm, energy geeks are taught that buildings are systems.

The real estate market is a system too,

one that isn't functioning rationally due to lack of information and training;

a system where intervention and solutions must be implemented locally.

Let's build and renovate sustainably, share data, and educate and ensure that...

sellers and buyers can identify and accurately value the benefits of Passive Houses.

A large crowd of people at a formal event, possibly a gala or awards ceremony. The people are dressed in formal attire, including suits and dresses. The crowd is dense, and many people are looking towards the camera or slightly away. The lighting is warm and focused on the central area. A semi-transparent text box is overlaid in the center of the image, containing the text "I appreciate your interest in...".

I appreciate your
interest in...

Now Go Make the Invisible Visible

Questions?

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