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

Jeff Gephart, Vermontwise Energy Services, Inc. 
Rochester, VT
• President of Vermontwise Energy Services, Inc. located in Rochester, VT and founded 1997

• Member of the 2009 Westford, MA CPHC class – *though never a CPHC*

• Residential new construction efficiency services implementation contractor for statewide energy efficiency utility since 2000 and for all major Vermont utilities 1997-2000

• Utility DSM manager, Central Vermont Public Service 1992-1997

• Residential construction estimating, sales, property management, and foundation and carpentry field work

I am not an appraiser, a Realtor®, nor a lender
Agenda

The Problem

*Few Real Estate Professionals Have Training*

*There is a cavalry but they’re all generals*

For You and Your Passive House Client:

*Best Practice for Passive House Projects Seeking Financing*

  *Appraisals*

  *Engaging Lenders*

Passive for the Masses and the Planet:

*Real Estate Market Transformation Needed Everywhere*
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.

Jeffrey Gephart, Vermontwise Energy Services, Inc.
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...
...but, as appraisals document market value (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*
## Valuation of Sustainable Buildings: Commercial

### Professional Development Program Registry

<table>
<thead>
<tr>
<th>AI</th>
<th>Name</th>
<th>Company</th>
<th>City, State</th>
<th>Accepts Fee Assignments</th>
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**Mechanic Street Passive House**

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</table>

Source: Brad Hevenor, MAI Markus Appraisal, RI
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**

Source: Brad Hevenor, MAI Markus Appraisal, RI
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...

“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).
In follow-up with John Brenan 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.”

Jeffrey Gephart, Vermontwise Energy Services, Inc.
“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 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”**
“Lastly, the APB has also issued an exposure draft on the Valuation of Green and High Performance Properties: Commercial, Multi-Family and Institutional.

The APB is currently reviewing the public comments received from that exposure draft and will determine whether to adopt it as a Valuation Advisory or issue a second exposure draft.”

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.

Since its inception, “approximately 650 appraisers, out of a little more than 50,000 certified residential and licensed appraisers in the U.S., have gained a Valuation of Sustainable Buildings Professional Registry listings.”

William Garber, Director of Government and External Relations, Appraisal Institute
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
Current Vermont Valuation of Sustainable Buildings Professional Residential Registry Listings

<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
<th>City, State</th>
<th>Accepts Fee Assignments</th>
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<tr>
<td>Charles M. Andrews, SRA</td>
<td>CMA Appraisals, Inc.</td>
<td>Montpelier, VT</td>
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<tr>
<td>Edward J. Friihauf, MAI</td>
<td>Friihauf Appraisal Associates</td>
<td>Montpelier, VT</td>
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<tr>
<td>Michael W Gammal, MAI *</td>
<td>Gammal Real Estate Services, P.C.</td>
<td>Essex Junction, VT</td>
<td>Yes</td>
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<tr>
<td>Michael F. Keller, MAI</td>
<td>Keller &amp; Associates, Inc.</td>
<td>Burlington, VT</td>
<td>Yes</td>
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<tr>
<td>Amy C. McClellan, SRA</td>
<td>Milne-Allen Appraisal Company</td>
<td>Sugar Hill, NH</td>
<td>Yes</td>
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<tr>
<td>Sean A. Sargeant, MAI, SRA</td>
<td>Sargeant Appraisal Service</td>
<td>Rutland, VT</td>
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<td>George C. Sargeant, SRA</td>
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<td>Sylvia P. Rogers</td>
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<td>White River Junction, VT</td>
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<td>Robert B. Taylor</td>
<td>Bruce A Taylor Appraiser</td>
<td>Fairlee, VT</td>
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<td>Charles Stott Woods</td>
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<td>St. Johnsbury, VT</td>
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<tr>
<td>John T. Waldo</td>
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### Valuation of Sustainable Buildings

#### Professional Registry Residential Listings

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

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Jeffrey Gephart, Vermontwise Energy Services, Inc.
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
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.

www.appraisalinstitute.org/assets/1/29/AI_821_Green_Commercial_Interactive1.pdf
The objective of this Addendum is to standardize the communication of the high performing features of residential properties.

Identifying the features not found on the 1004 form provides a basis for comparable selection and analysis of the features.

Builders, contractors, homeowners, and third party verifiers are encouraged to complete this Addendum and present it to appraisers, agents, lenders, and homeowners.
Provide Data!

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

- Provides a 3rd party statement about 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 called for by the *Residential Green and Energy Efficient Addendum*.

Request that your 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 better yet, the net present value (NPV) of the energy savings.
Steve Baden
RESNET

Scott Robinson
Appraisal Institute

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

Scott Robinson, MAI, SRA, AI-GRS
Appraisal Institute President
Provide Data!

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

**Cost Data Addendum for High Performance Homes V2** - developed here in the Pacific Northwest by Fiona Douglas-Hamilton at S.E.E.C., LLC.

Can be downloaded at no charge:

Provide Data!

PV Value®
This U.S. DOE supported web tool is used to help determine the value of a 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
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 bill prohibits them from involvement appraiser hiring

The prohibition pertains to loan officers and others whose income is tied to the loan...

    not the purchasing dept. or Appraisal Management Co.

Point them to the AI Registry and offer to leave them the questions you will ask the appraiser when scheduling the appraisal
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

Sandra Adomatis, SRA, LEED GA
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

Source: High-Performance Appraisals: Steps for Success – August 7, 2013
Sandra Adomatis, SRA, LEED GA
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 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.

Source: Appraising ENERGY STAR Qualified Homes - June 30, 2010
Brian Ng, Karen Argeris, Donald Briggs, Sandra Adomatis
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: August 29, 2017

www.fanniemae.com/content/guide/selling/b4/1.1/03.html
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 August 29, 2017, B4-1.1-03, Appraiser Selection Criteria
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 August 29, 2017, B4-1.1-03, Appraiser Selection Criteria
## Competency & the Major Secondary Mortgage Markets

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<td>Prior to Accepting:</td>
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</table>

Source: *Residential Green Valuation Tools* – August 19, 2014

Sandra Adomatis, SRA, LEED GA

Jeffrey Gephart, Vermontwise Energy Services, Inc.
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
A Leading Appraiser’s Advice

Graphic display advised

HERS® Index

More Energy

Existing Homes

Reference Home

Code Home

Zero Energy Home

Less Energy

Passive House
Another possible graphic summary...

but, remember the KISS principle.
KISS?
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
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

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/
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
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
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.
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:


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
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_describ/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

For Buyers

Ensuring a Qualified Appraiser for Your Home

For Lenders

Appraised Value & Energy Efficiency: Getting It Right

Jeffrey Gephart, Vermontwise Energy Services, Inc.

http://www.homeperformance.org/sites/default/files/Appraised%20Value-Retrofit%20FINAL_0.pdf
Appraised Value & Energy Efficiency: Getting It Right - For Realtors®

For Buyers

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 21-26% more efficient than those built before. Some of your home features may include:

- More wall and ceiling insulation to keep conditions all inside your home
- Windows that keep the heat out in the summer months to improve energy savings, and cooler in the winter
- Robust drafts and air leaks, which improve indoor comfort
- Or, you may have a home built well before the new code but have green retrofits that make your home more efficient than other homes built at the same time frame.

What You Need To Know Regarding the Loan/Appraisal Process

Some lenders randomly assign an appraiser to estimate the value of a home using a typical home if it is a high-performing building or one with unique green features. The FHA requires that appraisers properly qualify specific properties in the appraisal report. If you do not clearly identify the property type as a high-performance green home, the appraiser may not take these features into account.

What You Need To Do

Provide your lender with these things to promote your home:

- Professional Certification or complete HERS Report
- The lender’s experience with green home appraisals
- The appraiser's knowledge of green homes and how to conduct high-performance green home appraisals
- The HERS Index score
- Documentation certifying any other party verified building certifications

For Lenders

Dear Customer,

This home was built to a higher standard. It is a green, and/or energy-efficient, high-performance home as shown below:

- Existing homes with Energy Star features

Description of energy-efficient and/or green upgrades

A copy of the green and energy-efficient addition is on file, and the energy report (if available, or two years of utility bills) should be included with the appraisal/evaluation letter.ernise Mac, Freddie Mac and FHA require lenders to use appraisers properly qualified to value the green and/or energy-efficiency features of a high-performance, energy-efficient home in the local real estate market.

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

www.mypresidentialbank.com/EngageGreen_Sustainable_value_and_ethics.aspx

These specialty-trained appraisers have completed 34 hours of education and passed three exams. If the appraiser on your panel is not on this list, they can complete 14 education hours, online to get certified.

www.myappraisers.org/education/courses/extent Pilots.aspx?form_id=966100, 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:

NAME: __________________________
PHONE: _________________________
EMAIL ADDRESS: ____________________________

Jeffrey Gephart, Vermontwise Energy Services, Inc.
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

Jeffrey Gephart, Vermontwise Energy Services, Inc.
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!”

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

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

Credit: Sandra Adomatis, SRA, LEED GA
Outreach 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.

Suddenly, a heated exchange took place between the king and the moat contractor.
How do we make energy efficiency visible to real estate professionals and to more of their clients?
I’m not sure that’s what they mean by “now reduce the wine.”

There’s a recipe for engaging the real estate market.
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

a blueprint contributed to by the...

Vermont Green Home Alliance

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 real estate transactions. 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 MIs. 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.

Jeffrey Gephart, Vermont Wise Energy Services, Inc.
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 for Social Responsibility
- Building Performance Professionals Association of Vermont
- Efficiency Vermont
- Energy Futures Group
- Home Builders & Remodelers Association of Northern Vermont
- New England Real Estate Network (MLS)
- New Hampshire/Vermont Chapter of the Appraisal Institute
- U.S. Department of Agriculture, Rural Development, Housing Programs
- Vermont Association of Professional Home Inspectors
- Vermont Energy Investment Corporation
- Vermont Green Building Network
- Vermont Housing Finance Agency
- Vermont Passive House
- Vermont Realtors®
- VSECU – a credit union serving all Vermonters
“Politicians discussing global warming.”
Sculpture by Isaac Cordal
What’s at the rainbow’s end?

Jeffrey Gephart, Vermontwise Energy Services, Inc.
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.
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.

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**.

*Unlocking the Value of an Energy Efficient Home, August 2013*

CNT Energy & National Home Performance Council
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
“If a person lives in the forest and is not on TV, does she make a sound?”

As asked on NPR’s Morning Edition
Published in: Back to the Garden, by Sam Knight, The New Yorker, Sept. 4, 2017
Get heard, get on TV, 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...

Most of the ~750 MLS across the country, don’t have “Green Features” or energy performance data

However, 79 out of the top 100 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
Showed 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.
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


Jeffrey Gephart, Vermontwise Energy Services, Inc.
New England Real Estate Network - MLS 3rd Party Verified Green Fields

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<th>(403) Green Verification Program</th>
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<tr>
<td>(408) Green Verification New Construction</td>
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<tr>
<td>(407) Green Verification URL</td>
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100 characters left.
New England Real Estate Network – 3rd Party Verified
Green Programs Drop-Down Selection List:

- Blower Door Test
- ENERGY STAR Certified Homes
- EnerPhit
- HERS
- Home Energy Score
- Home Performance with ENERGY STAR
- 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)
## NH & VT 3rd Party Verified Green Fields

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<tr>
<th>Home Type</th>
<th>Green Building Verification (program)</th>
<th>Green Verification Body (program sponsor)</th>
<th>Green Year Verified</th>
<th>Green Verification Rating (level achieved)</th>
<th>Green Verification Status (proposed or official)</th>
<th>Green Verification Metric (efficiency score)</th>
<th>Green Verification URL (web address: more details)</th>
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<td>U.S. Environmental Protection Agency</td>
<td>year</td>
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<td>n/a</td>
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</tr>
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</table>

Certifications and enumeration sets for NH & VT
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 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.
Capitalize on existing (and/or create) high-quality continuing education and designation training.
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.), ~50,000 (4%) currently have earned the NAR Green Designation.

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

Help from the top

Jeffrey Gephart, Vermontwise Energy Services, Inc.
Vermont’s Approach to Market Transformation – Education Collaboration

First held in Vermont in 2015, the Symposium drew 225 attendees and was a financial success for Vermont Realtors®. It inspired the NH Assoc. of Realtors® to conduct a similar Symposium in March 2017.

Continuing education credits are key!

Jeffrey Gephart, Vermontwise Energy Services, Inc.
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
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...](http://www.aia-vermont.org)
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

Vermont Green Home Alliance

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

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

Jeffrey Gephart, Vermontwise Energy Services, Inc.
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 factors."
Develop standards and **IT solutions** that allow quicker and more **automated transfer of data**.

**HELIX**

- A NE/NY regional energy data source for MLS auto-population.
- Auto-pop?
- Now in 2\textsuperscript{nd} year of 3 year U.S. DOE Grant Funded project.

Jeffrey Gephart, Vermontwise Energy Services, Inc.
Passive Certified Projects Database and MLS?

Auto-pop for Passive House?

---

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</tr>
</tbody>
</table>

Jeffrey Geiphart, Vermontwise Energy Services, Inc.
Other organizations working on real estate market transformation...
S.E.E.C., LLC, Rainier, WA
Green Canopy Homes, Seattle, WA
Earth Advantage
Portland, OR
Build It Green
Los Angeles & Oakland, CA
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 NCEA 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 NCEA 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 its findings here.
Passive House professionals are advocates.
Real Estate Is Local – We Can Fix It

After, 1\textsuperscript{st} 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 accurate value the benefits of Passive Houses.
I appreciate your interest in...
Now Go Make the Invisible Visible

Thank you

Questions?

Jeff Gephart
Vermontwise Energy Services, Inc.
802.767.4501 - vtwise@together.net

The Path to Zero Source Energy
Sep 27 - Oct 1 in Seattle, WA