

Describing the Green House Made Easy

by Sandra K. Adomatis, SRA

Have you ever tried to describe a green home on the current residential forms? It presents a challenge and extends the writing time when using Fannie Mae Form 1004 or AI Reports Form 100. The Appraisal Institute decided there had to be a better way, and it moved forward to lead the industry with the *Residential Green and Energy-Efficient Addendum*.¹ The Addendum was created as part of the Appraisal Institute's AI Reports Form 100 series, but it can be used with the Fannie Mae Form 1004 as well. The objectives in creating the Addendum were to

- provide one central place in a report to describe green and energy-efficient features;
- standardize the reporting process;
- organize the description and expand the description sections of the residential forms;
- provide a basis for comparable sale selection; and
- proactively anticipate enactment of the proposed legislation known as the SAVE Act.

Keeping the six elements of green building in mind—site, energy, water, indoor air quality, materials, and operations and maintenance—the Addendum moves through the description of property features and addresses areas that are not covered on the residential forms. The main categories, represented in block format on the Addendum, are energy-efficient items, solar panels, green features, location-site factors, and government incentives.

Improved Information

Before the creation of the *Residential Green and Energy-Efficient Addendum*, the description of green or energy features were placed in the residential

forms' text addendum or not fully described. It usually meant adding a narrative description that would take time that most residential appraisers could not afford in this time-driven environment. Underwriters often overlooked the description because the narrative format was time consuming to read.

Today, the *Residential Green and Energy-Efficient Addendum* is the go-to point in the appraisal report for green and energy-efficient details. The Addendum organizes and expands the description sections of the residential forms we currently use. Having one central place in the report for green and energy-efficient items listed in a systematic manner creates standardization of the description. Fannie Mae and Freddie Mac created the Uniform Appraisal Dataset (UAD) to standardize reporting; however, they omitted energy or green features. How will we track data on this growing industry if the data is not standardized?

The Addendum's format provides a more accurate description of the subject property, and consequently, a basis for selecting comparable green sales. If we are not familiar with green or energy-efficient buildings, it will be extremely difficult to choose comparable sales. The Addendum allows a more thought-provoking analysis of the market data.

Finally, the Addendum is a proactive movement in regards to the Sensible Accounting to Value Energy Act, or SAVE Act, which may become law in the near future.² The SAVE Act, if enacted, would instruct federal loan agencies to assess a borrower's expected energy costs when financing a house. The first step in the SAVE Act would require an "E"—energy costs—to be added to the principal, interest, taxes, and insurance (PITI) currently used in qualifying a buyer for a loan; going forward the PITIE would be

1. http://www.appraisalinstitute.org/education/downloads/AI_82003_ReslGreenEnergyEffAddendum.pdf.

2. S. 1737. To see the bill's text and status, go to <http://www.govtrack.us/congress/bill.xpd?bill=s112-1737>.

taken into account. An average monthly utility cost would need to be developed and included in the debt ratio. The second phase of the SAVE Act would add a “W”—water costs—to the debt ratio for the average monthly water costs (PITIEW). The third phase of the act would add location-based transportation costs. The Addendum addresses these key points of the SAVE Act, putting the Appraisal Institute in the forefront of green valuation.

The first step to competency in green valuation is education. We can be duped into believing a property is green or energy efficient if we do not have the basic understanding of the six elements of green building. The Addendum is not a systematic guide on how to appraise or identify a green or energy-efficient house; however it does reference documents and information necessary to understand the shade of green and degree of energy efficiency. In addition, many tools are available to assist in completion of the Addendum. This article will address some of these tools; more information on appraisal of green buildings is available through the Appraisal Institute’s education offerings and its *Valuation of Sustainable Buildings Professional Development Program*.³

Addendum Energy-Efficient Items Section

Insulation

Often, third-party certifiers of green and energy-efficient houses refer to a building’s thermal or sealed envelope, and use door blowers, duct blasters, and/or infrared cameras to measure the envelope’s tightness. The appraiser is not equipped or trained to measure the tightness of the envelope; therefore, the first item addressed in the Addendum is the subject property’s insulation. Appraisers can only partially view the insulation in the attic in most cases. If you have plans and specifications, you can more accurately describe the type, rating, and the data source. A house that has a Home Energy Rating System (HERS) rating will have a paper trail that supports the rating and provides a wealth of information on the construction and rating system.⁴ Appraisers should ask owners or realtors to have these items

available for inspection. Most parties involved in the transaction are not aware of how important these documents can be to the property’s valuing and marketing.

Water Efficiency

Water efficiency is an important consideration in many parts of the country where water is scarce and expensive. As previously mentioned, the SAVE Act would require the monthly water costs to be figured into the debt ratios when qualifying a borrower for a loan. Also, new homes are moving toward reclaiming of greywater that can be used in other areas such as landscaping.⁵ Homes that are being retrofit for energy and water efficiency will implement water reclaiming systems. A water reclaiming system is something that appraisers could easily miss if they do not have documentation or an idea of how to identify such a system.

Rain barrels and cisterns are becoming more prevalent in an effort to conserve water. (In areas that do not allow rain barrels or cisterns these items would not be a consideration.) Cisterns can be easily overlooked if the appraiser is not aware of the signs that may identify them, and owners often forget to mention they have a cistern. The last property I appraised with a cistern is a good example of this situation. This house had a concrete deck that was connected to a second story porch, with what appeared to be a room under the deck. I could not find a door to this “room,” however. The owners saw my dilemma and asked if they could help with something. When I asked what was inside the four walls, they said a 10,500-gallon cistern for yard watering. Wow, in a neighborhood where irrigation is required and water is expensive, this is a real asset. This feature will become even more important and valuable if the SAVE Act becomes a reality.

Windows, Lighting, Appliances, and Mechanicals

Windows, appliances, daylighting, and mechanicals play an important part in the energy efficiency of the house. These features alone do not make a house energy efficient or green. The green or energy-efficient house will have mechanicals, fixtures, and design to ensure the different parts of a building work

3. For course and program information, go to http://www.appraisalinstitute.org/education/green_offerings.aspx and http://www.appraisalinstitute.org/education/prof_dev_programs.aspx.

4. The HERS Index scoring system was established by the Residential Energy Services Network (RESNET); see <http://www.resnet.us/home-energy-ratings>.

5. Greywater is domestic wastewater from kitchen, bathroom, and laundry sinks, tubs, and washers. Appraisal Institute, *The Dictionary of Real Estate Appraisal*, 5th ed. (Chicago: Appraisal Institute, 2010), 327.

together rather than against one another. This whole-building approach will result in lower operating costs.

Energy Rating, HERS, Utility Costs, and Energy Audit

A house that has been rated by a third-party certifier will have a home energy rating system (HERS) rating, which should be less than 100 if the house is energy efficient. A HERS rating is like a golf score, the lower the number, the more energy efficient the house. The net zero energy house indicates the house produces as much energy as it uses, and the energy production will be through some alternative source such as wind, geothermal, or solar. An Energy Star⁶ or green-certified house will have a HERS rating. You should verify the rating by reviewing the paper trail and, ideally, including a copy of the paperwork in the report.

It is important to know the HERS rating for a typical code-built house in your area. Five years ago, the HERS rating on a code-built house in my area was 100; in 2011, it was 85. As the code continues to implement more green and energy-efficient features, the certified ratings will become more stringent to stay above the typical code-built house.

The HERS rating will provide an estimated energy savings per month for the structure. This estimate can be used in analyzing the energy adjustment that might be necessary if comparable sales do not have the same features.⁷

Why would the Addendum call for the average monthly utility cost? The utility cost can be a measurement of the energy efficiency of the house and/or lifestyle of the occupants. If you do not have access to the last twelve months' utility bills, visit a free online tool to estimate the energy costs at <http://www.hespro.lbl.gov>. This website is user friendly and accurate if the inputs are accurate. Try the site using your own house to measure the accuracy of the tool and to obtain a sense of reliability. I used it on my house and found it to be accurate and easy to use. Home Energy Saver Professional (HESPro) will provide the energy costs from your local energy company and energy upgrades that could lower the costs. Do you see some uses for this site beyond supplying information for the form? Try using this site in consulting with clients on upgrades

to houses or assisting buyers in understanding the costs of a particular house.

Energy audits will be a growing business and one that will bring appraisers business. Incentives are often offered for energy retrofits to promote this movement, and retrofits are considered a source for new jobs. An appraisal order will be one of the jobs created by retrofits, so be proactive in learning more about energy audits and energy efficiency.

The Addendum asks if the energy upgrades suggested in an energy audit were implemented. If they have been implemented, the form provides room for a description of the improvements. Contractors should provide the homeowner with a complete list of the upgrades homeowners can use to facilitate a listing, sale, or appraisal. Or better yet, have the contractor complete an Addendum form for the homeowner. The Addendum can become their brag sheet and should be included with the agreement for listing. Figure 1 shows an example of how this information can be entered in the Energy-Efficient Items section of the Addendum.

If you have additional energy-efficient items that are not listed in the Addendum's check boxes, list them in the comments section. The large comment section provides space for an explanation of these features and additional items. A sample of comments that might be found in this section is shown in Figure 2.

Addendum Solar Panels Section

Following the Energy-Efficient Items section is the Solar Panels section. This section provides room for the description of four arrays. The section looks rather intimidating and time consuming. It will take some planning and research to gather the information, but knowing the facts is important to valuing the array(s). As solar panels decline in price, we will see more panels per house, making this an important feature to understand for proper valuation. The following gives a quick review of the terms and abbreviations used in the Solar Panel section.

- **Photovoltaic (PV) System**—An electrical system consisting of an array of one or more PV modules, conductors, electrical components, and one or more loads.⁸

6. For information on Energy Star, see <http://www.energystar.gov>.

7. Sandra K. Adomatis, "Valuing High Performance Houses," *The Appraisal Journal* (Spring 2010): 195–201.

8. James P. Dunlop, in partnership with the National Joint Apprenticeship and Training Committee for the Electrical Industry, *Photovoltaic Systems* (Homewood, IL: American Technical Publishers, 2007).

Figure 1 Example of Completed Energy-Efficient Items Section in Residential Green and Energy-Efficient Addendum

ENERGY EFFICIENT ITEMS							
The following items are considered within the appraised value of the subject property:							
Insulation	<input type="checkbox"/> Fiberglass Blown-In <input checked="" type="checkbox"/> Foam Insulation <input type="checkbox"/> Cellulose <input type="checkbox"/> Fiberglass Batt Insulation <input checked="" type="checkbox"/> Other (Describe): Icynene Sprayed Soy Based Insulated Foam				R-Value:		
	<input type="checkbox"/> Basement Insulation (Describe): <input type="checkbox"/> Floor Insulation (Describe):				<input checked="" type="checkbox"/> Walls R-13 <input checked="" type="checkbox"/> Ceiling R-40 <input type="checkbox"/> Floor		
Water Efficiency	<input checked="" type="checkbox"/> Reclaimed Water System (Explain): Greywater from baths, sinks, showers, etc.		<input checked="" type="checkbox"/> Cistern - Size: Gallons		Location: Underground in rear yard		
	<input type="checkbox"/> Rain Barrels - #:		<input type="checkbox"/> Rain Barrels Provide Irrigation				
Windows	<input type="checkbox"/> ENERGY STAR®	<input checked="" type="checkbox"/> Low E	<input checked="" type="checkbox"/> High Impact	<input type="checkbox"/> Storm	<input checked="" type="checkbox"/> Double Pane <input type="checkbox"/> Triple Pane	<input type="checkbox"/> Tinted	<input type="checkbox"/> Solar Shades
Day Lighting	<input type="checkbox"/> Skylights - #:	<input type="checkbox"/> Solar Tubes - #:	<input checked="" type="checkbox"/> ENERGY STAR Light Fixtures		<input type="checkbox"/> Other (Explain):		
Appliances	ENERGY STAR Appliances:		Water Heater:		Appliance Energy Source:		
	<input checked="" type="checkbox"/> Range/Top <input checked="" type="checkbox"/> Dishwasher <input checked="" type="checkbox"/> Refrigerator <input type="checkbox"/> Other:	<input checked="" type="checkbox"/> Solar <input type="checkbox"/> Tankless (On Demand) Size: 80 Gal.		<input type="checkbox"/> Propane <input checked="" type="checkbox"/> Electric <input type="checkbox"/> Natural Gas <input checked="" type="checkbox"/> Other (Describe): 20 Kilowatt Propane Automatic Back-Up Generator			
HVAC (Describe in Comments Area)	<input checked="" type="checkbox"/> High Efficiency HVAC - SEER: 19		<input type="checkbox"/> Heat Pump		<input type="checkbox"/> Thermostat/Controllers		<input type="checkbox"/> Passive Solar
	<input checked="" type="checkbox"/> Programmable Thermostat		<input type="checkbox"/> Wind		<input type="checkbox"/> Radiant Floor Heat		<input type="checkbox"/> Geothermal
Energy Rating	<input checked="" type="checkbox"/> ENERGY STAR Home <input type="checkbox"/> HPwES (Home Performance with ENERGY STAR) <input type="checkbox"/> Other (Describe):				<input checked="" type="checkbox"/> Indoor Air PLUS Package <input type="checkbox"/> Energy Recovery Ventilator Unit		
					<input type="checkbox"/> Certification Attached		
HERS Information	Rating: 55	Date Rated 2/1/2008	Monthly Energy Savings on Rating: \$ 85				
Utility Costs	Average Utility Cost \$ 125 per month based on: Avg/1 yr bills				<input type="checkbox"/> Dashboards - #:		
Energy Audit	Has an energy audit/rating been performed on the subject property? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown If yes, comment on work completed as result of audit.						

- **kW**—Kilowatt; a unit of power defined as voltage x current that equals 1000 watts. The size of a PV system is usually listed in kW terms; for example a 5040-watt system would be listed as 5.04kW.⁹
- **kWh**—Kilowatt hour; a unit of energy that is the equivalent to 1000 watts for one hour.¹⁰
- **Module**—A PV device consisting of a number of individual cells connected electrically, laminated, encapsulated, and packaged into a frame.¹¹

- **Source for Production**—Most solar systems will have a customer-owned meter or converter with a digital display showing the energy produced since the panel was installed (if the inverter or meter is the original one) and the energy produced that day. The inverter or meter is usually found near the electrical box. Some electrical boxes will have a sticker that identifies an alternative energy source is in use.

9. Jamie L. Johnson and Geoffrey T. Klise, *Solar Electric System (PV) Valuation Model* (white paper, forthcoming).

10. Ibid.

11. Dunlop, *Photovoltaic Systems*.

Figure 2 Example of Comments in Energy-Efficient Items Section

Comments	
	<p>The HERS rating indicates this house is 30% more energy efficient than the typical code-built house in this county. The rating certificate is framed and hanging on the wall just inside the front door.</p> <p>The appraised value is subject to two new A/C units, 19 SEER, being installed. Two units were stolen prior to this inspection. (See incentive box below for potential rebates)</p> <p>The soy based foam insulation resists moisture, rodents will not eat it, and it provides additional sound barrier to the sealed envelope.</p> <p>Additional features include low-flow shower heads, Energy Star light fixtures, CFL bulbs, and In Wall Pest Control System.</p>

- **Roof Slope**—The rise of the slope over 12 inches results in a roof slope such as 5/12 pitch or for every 12 inches of roof the rise is 5 inches. The slope may be found on the local property appraiser’s card. Plans and specifications provide the slope or if you have a compass or ruler, you can do your own measurement. The documentation or solar label inside the electrical box should provide the slope.
- **Azimuth**—The degree from true north that the surface of the solar panel diverges from, or simply stated, the roof’s compass heading. Your iPhone has a compass and it can be used to determine the roof’s compass heading at the location of the solar panel or at your office use the online tool available at <http://tools.solmetric.com/Tools/roofazimuthtool>. This website requires an address and instantly you will receive a map and the azimuth. If the solar installer has properly completed the installation labeling, a label should be inside the electrical box that will provide you with most of the items listed in the Solar Panels section.
- **Inverter**—A device that converts DC power to AC power.¹² The inverter typically only lasts around 10 years; therefore, it is important to know the age of the inverter to develop a net present value of the energy produced. Most solar panels have

20- to 25-year warranties and estimated life of the panel. However, the warranties do not usually involve replacement of the inverter.

If the panels are leased, a copy of the lease should be reviewed to understand the terms, expenses, and responsibility of the homeowner. Do not assume the array is owned. In most areas, permits are required to install a solar system. In my area, I can obtain solar permit information from the county’s website.

Ask the owners if they have a regular system of cleaning the panels to obtain the maximum energy production, because dust or mold layers can block the sun’s rays and reduce production. The solar panels will have a slight degradation in energy production each year that must also be considered in the net present value equation. Ask owners how much the system has saved them since installation. Using their estimated monthly savings, develop the time it will take the owners to recoup their investment. These are all talking points for a good analysis of the solar panels’ value.

The Appraisal Institute recently released its endorsement of a spreadsheet that will assist in valuing the net present value of a solar power system. Sandia National Laboratories in partnership with Solar Power Electric of Port Charlotte, Florida, developed the spreadsheet. It will soon be available

12. Dunlop, *Photovoltaic Systems*.

online for use by the public. The Solar Panel section of the Addendum addresses all the items needed to use this great new tool.

Figure 3 shows an example of how information can be entered in the Addendum's Solar Panels section.

Addendum Green Features Section

The Green Features section of the Addendum provides a place for noting any energy rating and the certifying organization. Only two national certifying organizations have check boxes in this section, but space is provided to list the organization's name if it is not one of the two listed. There are more than 60 certifying organizations in the United States, the Addendum could not possibly list them all.¹³

The green score given by a third-party certifier will provide a rating indicating the shade of green. The certifier uses a worksheet to assign points in various categories. The certification and the worksheet are important documents to copy and include in the appraisal report. (Or, at least reference them and keep a copy in your work file.) The certifier's worksheet will assist in understanding where the green emphasis is placed in the property by the points awarded and will provide a basis for selecting comparable sales. Some certifying organizations have property databases on their websites to allow anyone to search the database by address, city, or county to obtain green certification information.¹⁴

The only way to ensure a building is green is through a third-party certification. However, appraisers should have an understanding of the six elements of green building to identify the green features. Some owners choose not to have a property certified to spare the additional costs. Just because a building is not certified does not mean it is not green and does not deserve proper description and valuation related to green features. The appraisal is of the property and not the certification; therefore, becoming competent in identifying the green or energy-efficient house is a necessity. In some areas, a certified home may find lower marketing time and/or a premium. That is an analysis each appraiser must undertake in his or her market area.

Figure 4 shows an example of how information can be entered in the Addendum's Green Features section.

Addendum Location-Site Section

The next section of the Addendum is the location and site description.

The first item in this section is the Walk Score. A Walk Score measures the ability to walk to amenities such as parks, schools, and shopping. Some green certifications rate walkability, and the third phase of the SAVE Act would call for consideration of location-based transportation costs in loan decisions. A higher Walk Score means the occupants at a location are not auto dependent to reach most services. A property with a high Walk Score will receive maximum points in that scoring area. The Walk Score can quickly be obtained from <http://www.walkscore.com>. This website provides a great deal of information about a location, including proximity to restaurants, shopping, houses of worship, and schools. This website also might be helpful in completing the neighborhood section of the appraisal report.

The description of a green property includes a description of its site. The orientation of the site has an effect on the energy efficiency of the house; therefore, the orientation of the house on the site is defined in the Location-Site section. Landscaping is also included in this description because it can affect the energy efficiency of the structure. A green score will give points for these categories when they work together to enhance energy and water efficiency.

Figure 5 shows an example of how information can be entered in the Location-Site section of the Addendum.

Addendum Incentives Section

The last section of the Addendum provides space for a description of government incentives for the property to incorporate energy or green features. Completion of the Incentives section is easily accomplished by going to the Database of State Incentives for Renewables and Efficiency at <http://dsireusa.org>, which lists the federal, state, and local incentives available. Why are the incentives important? They offset the cost to build or cost to repair or retrofit. Incentives are usually short-lived; as a result, appraisers need to research the website each time they encounter a green property.

For example, an incentive could affect an adjustment for a solar panel. Suppose you are

13. <http://www.pathnet.org/search/catSearch.asp>.

14. <http://www.floridagreenbuilding.org>.

Figure 3 Example of Completed Solar Panels Section

Solar Panels				
The following items are considered within the appraised value of the subject property:				
Description	Array #1 /owned	Array #2	Array #3	Array #4
KW	4.03			
Age of Panels	3 years			
Energy Production Kwh per Array	6000			
Source for Production	Meter			
Location (Roof, Ground, Etc.)	Roof			
If Roof/Slope for Array	6/12			
Azimuth per Array	199.1			
Age of Inverter(s)	3 years			
Name of Utility Company:	FPL	Cost per Kwh charged by Company: \$.11/Kwh		
Comments (Discuss incentives available for new panels, condition of current panels, and any maintenance issues)	<p>The solar description will be used in developing a value of the energy production using a net present value analysis. The analysis is included within this report.</p> <p>The details for the description above were obtained from the electrical panel label and are assumed accurate.</p> <p>The Kwh charged was obtained from www.hes.lbl.gov Solar heating panels for the pool are on the west and east sides of the roof. Two separate panel systems provide maximum heat during sun hours.</p>			

appraising a five-year-old solar system, and you discover \$20,000 in incentives are currently offered for a new system that costs \$50,000. The net present value of the old system is \$15,000, and a new system can be purchased for \$10,000 after rebate. What contributory value might you give the five-year-old system? Keep in mind you are appraising the property as of a specific date.

Comparable Sales Search

After you have completed the Addendum, you have a good basis for a comparable sales search. The Addendum should inspire you to be more critical of the sales chosen and diligent in the verification process. If the local certifying organization offers a database of

certified homes, obtain a count of the number of certified homes in the area. This will provide the report reader with an understanding of the difficulties of comparable sales. For instance, if the search results in only ten houses certified in the past five years, one can assume comparable green sales might not exist. Start the summary to the sales comparison approach with this information to alert the underwriter that comparable sales of other certified homes may not be available.

Green MLS Tool Kit

The National Association of Realtors (NAR) has developed a “Green MLS Tool Kit”¹⁵ Not all multiple-listing service (MLS) systems have implemented the Green

15. <http://www.greenthemls.org/>.

Figure 4 Example of Completed Green Features Section

Green Features			
The following items are considered within the appraised value of the subject property:			
Certification	Year Certified: 1/8/09	Certifying Organization: FGBC	<input checked="" type="checkbox"/> Reviewed on site <input type="checkbox"/> Certification attached to this report
Rating	Score: 194	<input type="checkbox"/> LEED® Certified: <input type="checkbox"/> Silver <input type="checkbox"/> Gold <input type="checkbox"/> Platinum <input type="checkbox"/> Other: <input type="checkbox"/> ICC-700 National Green Building Standard Certified: <input type="checkbox"/> Bronze <input type="checkbox"/> Silver <input type="checkbox"/> Gold <input type="checkbox"/> Emerald	
	Certifying Organizations Green Score Range - High Score:		Low Score:
Additions	Explain any additions or changes made to the structure since it was certified: No additions		
Do changes require recertification to verify rating is still applicable? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Comments	<p>Certification is verified through the Florida Green Building Coalition (FGBC) web site database of certified homes. http://www.floridagreenbuilding.org</p> <p>Only 9 homes are certified green through the FGBC in this city; therefore, green-certified sales are not be available requiring the use of code-built sales.</p> <p>The subject's score of 194 is 100 points over the minimum number required to obtain certification.</p> <p>Green certified homes should lower operating costs, enhances indoor air quality, and increases durability.</p>		

Figure 5 Example of Completed Location-Site Section

Location - Site			
The following items are considered within the appraised value of the subject property:			
Walk Score	Score: 12	Source: http://www.walkscore.com	
Public Transportation	<input type="checkbox"/> Bus - Distance: Blocks	<input type="checkbox"/> Train - Distance: Blocks	<input type="checkbox"/> Subway - Distance: Blocks
Site	Orientation - front faces: <input type="checkbox"/> East/West <input checked="" type="checkbox"/> North/South	Landscape: Minimal sod and plantings <input type="checkbox"/> Xeriscape <input type="checkbox"/> Zero Impact <input type="checkbox"/> Natural	
Comments	The walk score indicates most all errands require a car. This property's walk score falls within the lower 30% of the city. The walk score ranges between 0 and 100 with scores between 90 and 100 indicating all errands are within walking distance.		

MLS Tool Kit, but, with time, it is inevitable. This tool kit promotes green and energy-efficient features and creates searchable data fields that allow appraisers and realtors to identify these properties. If the local MLS has not adopted the green features fields, ask them to consider adding the new data fields.

Review the features section of the MLS active and sold data sheets to track patterns that the market is beginning to seek green and energy-efficient features. Five years ago, a local MLS never mentioned these features, but today green features are usually among the first items mentioned. As the market changes, so must our valuations. Subjectively stating the market supports no discernible difference is not a choice. Even a zero adjustment requires support for the conclusion.

Verify the listed sales with a party involved to be sure the terms *green* or *energy efficient* as used are equal to your understanding of green and energy efficient. Upon verifying five sales listed in the MLS as green, I found not one was green. Three had energy-efficient appliances only, and two were code-built houses that the builder considered energy efficient. If these sales were used without verification, an error in the value may have resulted. To avoid this type of problem, the MLS boards will need to implement accountability steps to ensure these data fields are not being misused. Some MLS boards do require the agent to download the certification as an attachment to the MLS if they want the green or energy fields checked.

Cost Approach

The Addendum has provided an excellent description of the property for proper cost figures. Even if your market does not show a discernible difference for green features, the cost approach should reflect the true cost to construct. Most green houses can be built for 0% to 5% over the cost to build a code-built house. These percentages will increase if the owner has installed alternative energy sources such as solar, wind, or geothermal. Be diligent in your cost approach and explanation of the cost figures.

Conclusion

The Residential Green and Energy-Efficient Addendum is designed to extend the description of the property that currently exists on the residential forms. Even if your lender does not require the form, I am sure

it will not prohibit the use of the Addendum for this complex appraisal problem. Using the form will provide a more accurate description of the property to meet the Uniform Standards of Professional Appraisal Practice (USPAP) Standards Rule 1-1(e). If you do not describe the green features properly, the client assumes you did not understand the property type, and therefore, valued it incorrectly.

Only 2.9% of all appraisers in the United States have taken the Appraisal Institute's green classes and only 1.8% of all NAR members have taken NAR's green classes. Builders, contractors, and property owners are concerned over the lack of competency in the area of green, but the Appraisal Institute is the leader in the movement toward green competency. It has put a great deal of effort into developing education and tools to assist appraisers in valuing green and energy-efficient properties.

Since the Appraisal Institute's September 29, 2011 news release announcing its green addendum, AI has received substantial national and local print and online media coverage. Through November 5, 2011 traditional media coverage potentially has been read, heard, or seen nearly 133 million times. This should tell us something about the importance of this topic.

Is your name listed in the Appraisal Institute's database of appraisers that have completed the *Valuation of Sustainable Buildings Professional Development Program*?¹⁶ If you have not taken the development course series, consider signing up for the classes soon. This will make valuing the shades of green a less daunting task and will fulfill the first step in competency—education.

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16. http://www.appraisalinstitute.org/findappraiser/green_sustainability_residential.aspx.