Green Addendum Page 1 – "3rd Party Verifications"

AI Reports®
Form 820.05*

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):	☐ Indoor airPLUS ☐ WaterSense ☐ ENERGY STAR
Energy Department (DOE):	☐ Zero Energy Ready Home (ZERH)
Home Innovation Research Labs NGBS Home Remodel:	
Home Innovation Research Labs NGBS New Home:	☐ Bronze ☐ Silver ☐ Gold ☐ Emerald
Living Building Challenge (LBC):	☐ Living Building Certified ☐ Petal Certification
Passivhaus Standard:	☐ PHI Low Energy ☐ EnerPhit ☐ Passive House
Passive House Institute US:	☐ PHIUS+ 2015
USGBC LEED:	☐ Certified ☐ Silver ☐ Gold ☐ Platinum
Other:	

Date Verified: __/__/____ | Green Certification Version: ___ Organization URL: _____ | **ABOVE VALID ONLY IF CHECKED:** ☐ Verification reviewed on site ☐ Verification attached to this report

Energy Label
Labels disclose the state of the home's energy assets.

RESNET's HERS Rating (0 to 150): ____
☐ Sampling Rating
☐ Projected Rating
☐ Confirmed Rating

Estimated energy savings for this home: $____/year ____¢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): _____
☐ Official Score
☐ Unofficial Score

Estimated energy savings for this home: $____/year ___¢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 __¢ kWh rate dated __/__/__
Describe energy label system:

Date Verified: __/__/____ | Score or Rating Version: ____ Organization URL: ☐ www.resnet.us/ ☐ www.homeenergyscore.gov ☐ Other:_____ | **ABOVE VALID ONLY IF CHECKED:** ☐ Verification reviewed on site ☐ Verification attached to this report

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: ☐ Other: _____ ☐ energystar.gov/homeperformance | **ABOVE VALID ONLY IF CHECKED:** ☐ Verification reviewed on site ☐ Verification attached to this report

Completed by:_____ Title:_____ Date:_____

Leave blank.

List property address only.

"Green Certifications" are used for new construction only. If you have one, remember to attach it!

HERS rating is typically used for new construction only.

DOE (US Department of Energy) **Home Energy Score** is for existing homes and can be obtained pre-sale if desired.

Leave blank, no other relevant scores exist right now.

If you have one, attach a copy of the rating/score.

Complete if you hired a BPI contractor to perform **energy efficiency upgrades**.

You need to attach:

- Completed work scope
- Test-out results (e.g. final blower door test)

Ask Efficiency Vermont, NHSaves, and/or your contractor for copies.

Write "Completed by Seller."

List *EfficiencyVermont.com* or *NHSaves.com* if appropriate.

Leave "Version" blank.

Green Addendum Page 2 – "Efficiency Features"

Who should complete Page 2?

- **If you are hiring a professional** to complete a Home Energy Score or Home Energy Audit before listing, ask them to fill out this page for you in addition to compiling your score/report.
- **If you are NOT hiring a professional,** complete Page 2 yourself using whatever documentation you have (e.g. past energy audit reports, work scopes or contracts from past energy upgrades) and your own observations.

When is it necessary to attach documentation for Page 2?

- **DO attach documentation** (where possible) for information about insulation, building envelope, & energy usage.
- **You do NOT need documentation** for things that are plainly observable, like information about windows, lighting, appliances, heating equipment, and utility costs.

Client:		**Client File #:**	
Subject Property:		**Appraisal File #:**	

Include property address only and leave the rest blank

EFFICIENCY FEATURES (Water, Energy, and Environmental. See types defined in glossary).

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

Insulation	☐ Fiberglass Blown-In ☐ Foam Insulation ☐ Cellulose ☐ Fiberglass Batt Insulation ☐ R-Value ____Wall ____Ceiling ☐ Other (Describe): _____						
Building Envelope	Envelope Tightness: _____ Unit: ☐ __CFM25 ☐__ CFM50 ☐__ ACH50 ☐__ ACH natural Instructions: Insert the rating as a number that could be 0.5 to 7ACH50 or higher. The lower the number, the more air tight the envelope. Building Codes for area show maximum Envelope Tightness allowed based on the climate zone. Not all areas have adopted a building code. http://bcap-energy.org/						
Windows	☐ ENERGY STAR®	☐ Low E	☐ High Impact	☐ Storm	☐ Double Pane ☐ Triple Pane	☐ Tinted	☐ Solar Shades
Day Lighting	☐ # Of Skylights: ____	☐ # Of Solar Tubes: ____	☐ Other (Describe): _____ (% Of lighting LEDs): _____				
ENERGY STAR® Appliances	ENERGY STAR®: ☐ Dishwasher ☐ Refrigerator ☐ Washer/Dryer ☐ Other: _____ Energy Source: ☐ Propane ☐ Electric ☐ Natural Gas ☐ Other: _____ **Note:** ENERGY STAR® appliances do not result in an ENERGY STAR® Home.						
Water Heater	☐ ENERGY STAR®	Size: _____ gallons ☐ Tankless	☐ Solar (next page)	☐ Heat Pump	☐ Coil		
HVAC & Related Equipment Describe in comments area.	☐ High Efficiency HVAC SEER: _____ Efficiency Rating: _____% AFUE* _____% *Annual Fuel-Utilization Efficiency	☐ Heat Pump Efficiency Rating: COP: _____ HSPF: _____ SEER: _____ EER: _____	Thermostat/Controllers? ☐ Yes ☐ No Programmable Thermostat? ☐ Yes ☐ No Auxiliary heat source? ☐ Yes ☐ No Radiant Floor Heat? ☐ Yes ☐ No Geothermal? ☐ Yes ☐ No Electric Vehicle Ready? (car charger) ☐ Yes ☐ No				
Indoor Environmental Quality	☐ Energy (ERV) or Heat Recovery Ventilator (HRV) ☐ Other Measured Whole-House Ventilation Device (See glossary) ☐ Humidity Monitoring Device installed		☐ Non Toxic Pest Control ☐ Radon System: ☐ Active ☐ Passive				
Water Efficiency	☐ Reclaimed Water System (Describe): _____ ☐ Greywater reuse system ☐ Water Saving Fixtures	☐ Rain Barrels Used in Irrigation Cistern size: _____ gallons Location of cistern: _____					
Utility Costs	Annual Utility Cost: $ _____/year, based on: __/__/____ to __/__/____ (full year). Includes (check all that apply): ☐ Electric ☐ Heating ☐ Water ☐ Other: _____	# Of Occupants: _____					
Comments Include source for information provided in this section.	**List age of features/equipment** listed above (e.g. install year for windows, appliances) **Mention attached documentation** to support your claims about insulation, building envelope, and utility						

Reference and **attach actual documentation** of insulation and blower door test results:
- Energy audit report, OR
- Records from past upgrades

Look for ENERGY STAR logo on appliances next to the model #

SEER is for air conditioners; Efficiency Rating and AFUE are for heating systems, write in whichever measure is listed on the side of your boiler/furnace

Attach records of energy usage (heating & electric) for the past 1-3 years (your fuel/electric companies can send a summary)

Completed by:_____ Title:_____ Date:_____

Green Addendum Page 3 – "Solar Panels"

Who should complete Page 3?

- **If possible, ask your solar installer** to complete Page 3 for you. If your installer completes this Page 3, you do not need to attach additional documentation.
- **Complete Page 3 on your own** if your installer cannot assist you or if you already have documentation from your installer (e.g. a contract or work scope) with all the information you need to complete Page 3. If you do complete Page 3 on your own, attach a copy of the documentation from your installer as a form of verification.

Client:		**Client File #:**	
Subject Property:		**Appraisal File #:**	

Include property address, leave the rest blank

Solar Panels

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

Solar Photovoltaic (Electric) System

	Array #1	Array #2 (if applicable)
Type of Ownership	☐ Leased ☐ Owned ☐* Solar Loan with UCC Filing ☐ Power Purchase Agreement (PPA) If solar loan has UCC Filing, it is considered personal property and should not be included in market value.	☐ Leased ☐ Owned ☐ Solar Loan ☐ UCC Filing ☐ Power Purchase Agreement (PPA)
Panel Specifications	System Size: _____ kW (1kW = 1000 Watts) Age of Panels: _____ years Energy Production: _____ kWh Source of Energy Production Estimate: _____ Manufacturer: _____ Warranty on Panels: _____ years	System Size: _____ kW (1kW = 1000 Watts) Age of Panels: _____ years Energy Production: _____ kWh Source of Energy Production Estimate: _____ Manufacturer: _____ Warranty on Panels: _____ years
Array Placement Affects energy production. *Orientation	Location (roof, ground, etc.): _____ ☐ Fixed Mount ☐ Tracking Mount Tilt / Slope: _____ *Azimuth: _____	Location (roof, ground, etc.): _____ Tilt / Slope: _____ Azimuth: _____ Orientation (direction panels face): _____
Inverter Specifications	Number of Inverters per Array: _____ Age: _____years Wattage: _____watts Manufacturer: _____ Warranty Term: _____years	Number of Inverters per Array: _____ Age: _____years Wattage: _____watts Manufacturer: _____ Warranty Term: _____years
Energy Storing Batteries	Battery Type: ☐ Lithium-ion ☐ Lithium-ion Polymer ☐ Lead Acid ☐ Lead Calcium ☐ AGM ☐ GEL Manufacturer: _____ Storage Capacity: _____kWh Warranty Term: _____ years Battery age: _____	

Ask your solar installer to fill this out for you, or copy information from documentation you already have from your installer. If using documentation, attach it to the green addendum.

*****IMPORTANT*****
Register for free at www.pvvalue.com then fill out their online form to generate a one-page value estimation. Attach the PV Value® printout to your Green Addendum.

Name of Utility Company:		**Charge / kWh from Utility**	$ _____ / kWh

If needed, use the comments section to explain the home's net metering terms

Solar Thermal Water Heating System

Type of System	Active: ☐Direct ☐ Indirect Passive: ☐ Integral collector ☐ Thermo-syphon	**Storage Tank Size**	Gallons: _____
Collector Type	☐ Flat-Plat ☐ Integral ☐ Evacuated-Tube Solar	**System Age**	Years: _____
Back-Up System	☐ Conventional Water Heater ☐ Tankless On Demand ☐ Tankless Heat Pump	**Warranty Term**	
Solar Energy Factor (SEF)	*Rating ranges 1 to 11. Higher number is more efficient.	**Manufacturer**	

Comments Discuss incentives available for new panels, condition of current panels, and any maintenance issues. If leased, provide the lease terms.

Discuss source of information and define other renewable energy sources, such as wind, hydropower, biomass power, etc.

Note: Leased solar PV systems and **Power Purchase Agreements** should not be included in the value of the real property as these systems generally are considered personal property. If a system is a lease or a PPA the terms must be provided to the appraiser for analysis. Appraisers must analyze the effect any of the terms of the lease or PPA have on the price buyers are willing to pay for the property.

If more space is needed, attach another page.

If possible – specify:

- Total annual electric usage for past 12 months
- Actual dollar amount paid to electric company for past 12 months of electricity usage
- Amount seller WOULD HAVE paid for electricity without solar offset

Completed by: _____ Title: _____ Date: _____

Green Addendum Page 4
"Location" & "Incentives"

Who should complete Page 4?

As the seller, you can complete Page 4 yourself. You should not need to include any documentation.

Client:		**Client File #:**	
Subject Property:		**Appraisal File #:**	

Include property address, leave the rest blank

Location - Site			
The following items are considered within the appraisal analysis of the subject property:			
Walk Score	Score:	Source: ☐ http://www.walkscore.com ☐ Other: _____	
Public Transportation	☐ Bus Distance: _____ Blocks	☐ Train: Distance: _____ Blocks	☐ Subway Distance: _____ Blocks
Site	Orientation (front faces): ☐ East / West ☐ North / South	Landscaping: ☐ Water Efficient ☐ Natural ☐ Pond/Lake on site ☐ Rain Garden	
Comments			

Use *www.walkscore.com*

Consider mentioning nearby park & rides, the safety/ease of walking/jogging/biking near the property, etc.

Incentives – Amount of Incentive and Terms	
The following items are considered within the appraised value of the subject property and **based on effective date of value**.	
Federal	
State	
Local	
Comments	Incentives offset cost and should be reported and described in the cost approach section of the report. Clearly identify the incentives that offset the gross cost of construction to meet appraisal standards. Incentives are typically not a sales concession in sales comparison approach since they do not transfer with the property and are not paid by the seller. Incentives are typically for a specified period and only those available as of the date of value should be addressed in the appraisal process. Incentives, rebates, and tax credits for most U.S. properties can be found at www.dsireusa.org

Completed by:_____ Title:_____ Date:_____

For any **incentives** received for energy upgrades, list:

- Year received
- Amount received

Examples:

Solar tax credit - list total credit earned (e.g. 30% of system cost) & actual credits received to date, if different from the full amount

State solar rebate

Home Performance with ENERGY STAR rebate through Efficiency Vermont or NHSaves