

Gateway to Greater Value and Lower Costs



SUSTAINABILITY SUMMIT 2023



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NARdotRealtor



nar.realtor/sustainability-summit

[#narsustainabilitysummit](https://twitter.com/narsustainabilitysummit)

 **SUSTAINABILITY
PROGRAM**

Realtors® See Sharp Increase in Homes with Green Features

April 26, 2022

Media Contact: Spencer High 202-383-1051

🏠 Sustainability

Key Highlights

- Half of Realtors® surveyed have recently helped clients buy or sell a home with green features, up from 32% from the previous year.
- Roughly two out of three agents and brokers see value in promoting energy efficiency in listings.
- A third of respondents are concerned about the impact of extreme weather events on the housing market.

<https://www.nar.realtor/newsroom/realtors-see-sharp-increase-in-homes-with-green-features>



Questions?



- Are the energy efficiency and green features' value represented in the appraisal?
- What are the best investments for a homeowner to make?
- How do you communicate those improvements to potential buyers, appraisers, and lenders?
- Can the buyer finance those additional costs?



The answers lie within the entire real estate ecosystem!

Are the energy and green features valued in the appraisal?

Starts with a knowledgeable appraiser with tools and resources

Data from the local market to show the market accepts these features and

Data to support value opinions

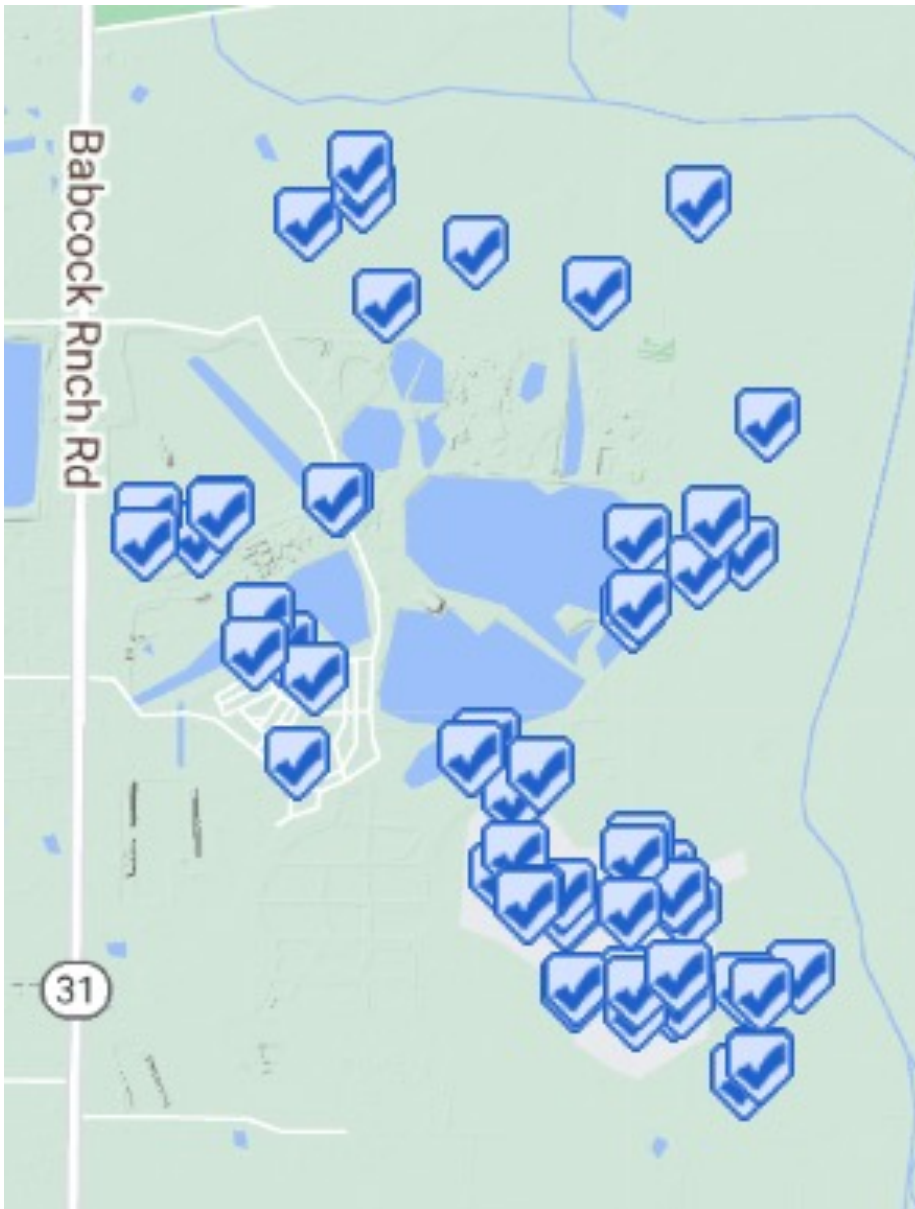
Energy and green features must be visible in the data!

Energy-Star Custom Home: Beautifully finished & meticulously maintained Colonial home offers an amazing location in the desired Stratford Crossing neighborhood w/ velvety lawns, two patios & plenty of room to play & entertain family & friends. Award-winning builder designed & crafted the custom house in 2015 w/ over \$100k of tastefully selected high-end upgrades, spacious light-filled rooms & finished lower level with direct access to a garden terrace. Gorgeous double-story hall flows to a formal living and dining room, wonderful family room w/gas fireplace & large breakfast room w/beverage & coffee station. Amazing gourmet Kitchen inspires the chef with its stainless-steel appliances & a large center island for entertaining guests. Expansive windows & doors bring in abundant natural light and views of nature on every level. A unique feature is the main floor bedroom w/full bathroom. A tiled mudroom, walk-in pantry, large coat closet, half bath plus a 3-car garage complete the 1st floor. Wainscot-panel walls on staircase and balcony raises the bar for elegance in a primary bedroom suite w/fireplace, massive walk-in closet/dressing room & lovely master bathroom complete w/ quartz countertops, dual vanity, soaking tub and spa shower. Three more bedrooms, 2 full bathrooms, enormous playroom/homework room & large laundry room upstairs; game/media room, built-in bar, gym & full bathroom in 900 sq. ft. walk-out garden level. Access to open space & walking trails are so close by!

Confidential Agent Remarks

Home is Energy efficient with a high HERS standard: 50% more efficient than a comparable home built according to the current building standard. Those were upgrades when being built: high-efficiency energy star gas furnace, 4 zones for Heating and A/C, extra insulation, fresh air intake system, Generac Generator & more Average monthly utility costs: \$150 gas, \$180 electricity All bedrooms on 2nd floor have walk-in closet!

Source: CT MLS Sold Listing



Babcock Ranch, Charlotte County, FL – Solar Powered Community
 All structures are green; but you would never know it. An MLS search shows no HERS or Green Certified Homes.

Status: Active (23)

| | Beds | Baths | SqFt Heated | List Price | LP / SqFt | Close Price | SP / SqFt | Days to Contract | Days To Close | ADOM | CDOM |
|---------------|------|-------|-------------|-------------|-----------|-------------|-----------|------------------|---------------|------|------|
| Min | 2 | 2 | 1,301 | \$339,900 | \$193.24 | - | - | - | - | | |
| Max | 5 | 4 | 3,586 | \$1,100,000 | \$459.94 | - | - | - | - | 146 | 146 |
| Avg | 3 | 3 | 2,163 | \$610,091 | \$282.02 | - | - | - | - | 49 | 49 |
| Median | 3 | 2 | 2,032 | \$599,999 | \$267.31 | - | - | - | - | 47 | 47 |

Status: Sold (34)

| | Beds | Baths | SqFt Heated | List Price | LP / SqFt | Close Price | SP / SqFt | Days to Contract | Days To Close | ADOM | CDOM |
|---------------|------|-------|-------------|-------------|-----------|-------------|-----------|------------------|---------------|------|------|
| Min | 2 | 2 | 1,397 | \$342,820 | \$196.82 | \$329,000 | \$196.82 | -291 | | | |
| Max | 5 | 4 | 3,360 | \$1,170,737 | \$394.99 | \$1,170,737 | \$394.99 | 151 | 181 | 114 | 207 |
| Avg | 3 | 2 | 2,090 | \$569,110 | \$272.03 | \$557,976 | \$266.46 | 13 | 73 | 32 | 34 |
| Median | 3 | 2 | 2,030 | \$544,500 | \$270.99 | \$534,500 | \$269.78 | 33 | 70 | 27 | 27 |

Status: All (57)

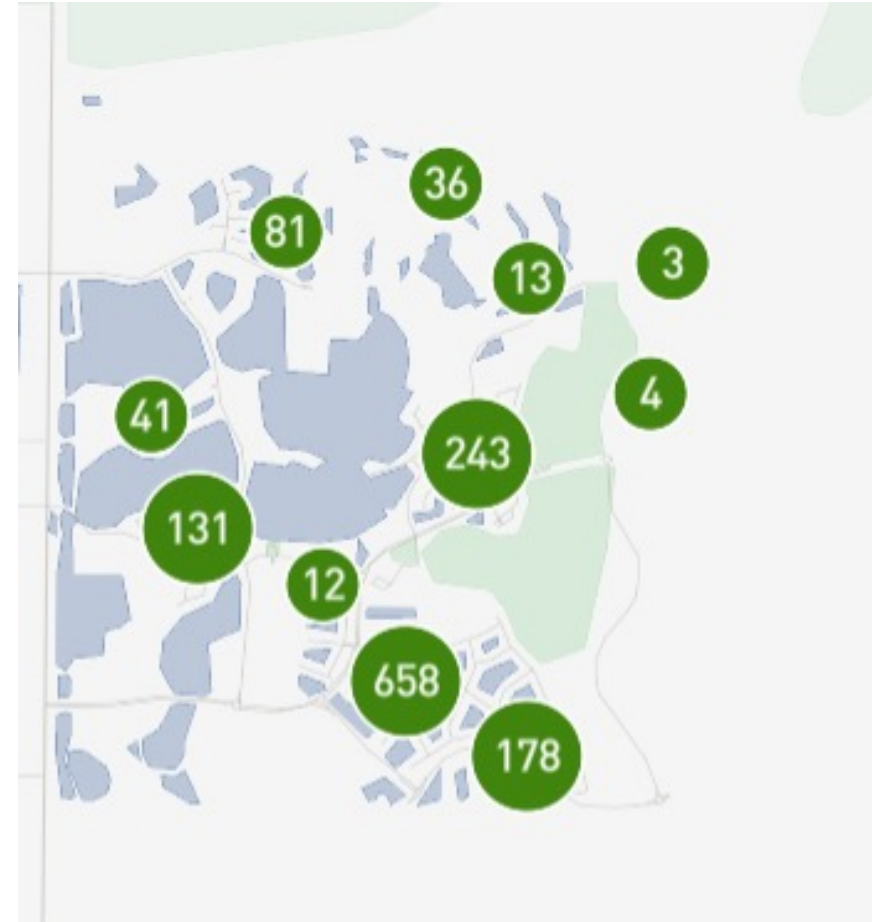
| | Beds | Baths | SqFt Heated | List Price | LP / SqFt | Close Price | SP / SqFt | Days to Contract | Days To Close | ADOM | CDOM |
|---------------|------|-------|-------------|-------------|-----------|-------------|-----------|------------------|---------------|------|------|
| Min | 2 | 2 | 1,301 | \$339,900 | \$193.24 | \$329,000 | \$196.82 | -291 | | | |
| Max | 5 | 4 | 3,586 | \$1,170,737 | \$459.94 | \$1,170,737 | \$394.99 | 151 | 181 | 146 | 207 |
| Avg | 3 | 3 | 2,120 | \$585,646 | \$276.06 | \$557,976 | \$266.46 | 13 | 73 | 38 | 40 |
| Median | 3 | 2 | 2,032 | \$550,000 | \$270.67 | \$534,500 | \$269.78 | 33 | 70 | 34 | 34 |

Last 180 days search result

Babcock Ranch Green Homes

1,767 results

<https://us.greenbuildingregistry.com/green-homes>



Babcock Ranch Property Details

[← Back to search](#) [View map](#) [Search nearby](#)

43484 Boardwalk Loop
Punta Gorda, FL, 33982
Residential

[About this home's data](#) [Print this page](#)

Building Certifications

[Show details](#)

The image shows the RESNET HERS INDEX logo and a score of 57. Below the score is a horizontal scale from -50 to 150, with a marker at 57. The scale is labeled 'less energy use' on the left and 'more energy use' on the right. A vertical line at 100 is labeled '100 ref. home'.

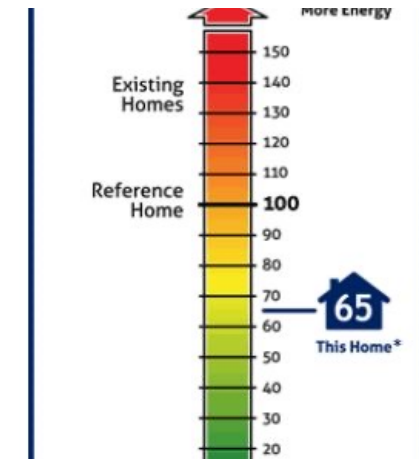
| Energy Use | Score |
|-----------------|-------|
| less energy use | -50 |
| 100 ref. home | 100 |
| more energy use | 150 |

Appraisal Addendum

[DOWNLOAD ADDENDUM](#)

*NOTICE: This Residential Green and Energy Efficient Addendum lists relevant, public data from the GBR. It is generated with the permission of the Appraisal Institute®. Click the link above to download the form. This form may be provided to an appraiser, and the appraiser may deem use of this form appropriate in developing an opinion of the value of this home.

<https://us.greenbuildingregistry.com/green-homes/FL10178310>




What are the best investments for a homeowner to make?



How do agents and homeowners communicate those improvements to potential buyers, appraisers, and lenders?

| | |
|---------|---|
| Use | Use the Appraisal Institute Residential Green and Energy Efficient Addendum (AIRGEEA) |
| Attach | Attach the AIRGEEA to the sales contract and to the MLS Listing |
| Present | Present the AIRGEEA to the appraiser at the time of inspection |
| Educate | Educate the buyer on the importance of communicating the importance of a knowledgeable appraiser for this home with special features at time of mortgage application. |

How does a homeowner communicate these investments to the market?

| | | |
|--|---|--|
|  | | 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/energy_efficient_addendum.aspx | | |
| The appraiser hereby certifies that the information provided within this addendum: <ul style="list-style-type: none"> 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. | <input type="checkbox"/> Environmental Protection Agency (EPA) <input type="checkbox"/> Indoor airPLUS <input type="checkbox"/> WaterSense <input type="checkbox"/> ENERGY STAR <input type="checkbox"/> Green Building Initiative (GBI) <input type="checkbox"/> Green Energy Ready Home (GERH) <input type="checkbox"/> Home Innovation Research Labs (HIRL) Home Remodel <input type="checkbox"/> Bronze <input type="checkbox"/> Silver <input type="checkbox"/> Gold <input type="checkbox"/> Emerald <input type="checkbox"/> Home Innovation Research Labs (HIRL) New Home <input type="checkbox"/> Living Building Certified <input type="checkbox"/> Petal Certification <input type="checkbox"/> Passivhaus Standard <input type="checkbox"/> The Low Energy <input type="checkbox"/> EnerPHit <input type="checkbox"/> Passiv House <input type="checkbox"/> Passive House Institute US <input type="checkbox"/> PHICC 2015 <input type="checkbox"/> LEED: LEED <input type="checkbox"/> Certified <input type="checkbox"/> Silver <input type="checkbox"/> Gold <input type="checkbox"/> Platinum Other: _____ | Date Verified: ____/____/____ Green Certification Version: _____ Organization URL: _____ |
| Energy Label Labels disclose the state the home's energy assets. | RESNET's HERS Rating (0 to 150): _____ <input type="checkbox"/> Sampling Rating <input type="checkbox"/> Projected Rating <input type="checkbox"/> Confirmed Rating DOE's Home Energy Score Score (1 to 10): _____ <input type="checkbox"/> Official Score <input type="checkbox"/> Unofficial Score Other Energy Score: Range (____ to ____): _____ | Estimated energy savings for this home: \$ ____/year ____ cKWh rate dated ____/____/____ Energy Savings includes electricity, heating & Cooling. Score below 100 indicates energy costs are expected to be lower than average local code home per square foot. HERS Index Report estimates energy cost based on number of bedrooms plus one. Only a "confirmed rating" is a diagnostic test. Estimated energy savings for this home: \$ ____/year ____ cKWh 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. Estimated energy savings: \$ ____/year ____ c KWh rate dated ____/____/____ Describe energy label system: _____ |
| Verified Energy Improvements Explain energy-related improvements: Cost of improvements: \$ _____ | Date Verified: ____/____/____ Certificate of Efficiency Improvements Version: _____ Organization URL: <input type="checkbox"/> Other: _____ <input type="checkbox"/> www.resnet.us/ <input type="checkbox"/> www.homeenergyscore.gov <input type="checkbox"/> energylabel.gov/homeperformance | ABOVE VALID ONLY IF CHECKED: <input type="checkbox"/> Verification reviewed on site <input type="checkbox"/> Verification attached to this report |
| Completed by: _____ Title: _____ Date: _____ | | |

| | |
|--|--|
| RESNET's HERS Rating (0 to 150): _____ <input type="checkbox"/> Sampling Rating <input type="checkbox"/> Projected Rating <input type="checkbox"/> Confirmed Rating | Estimated energy savings for this home: \$ ____/year ____ cKWh rate dated ____/____/____ Energy Savings includes electricity, heating & Cooling. Score below 100 indicates energy costs are expected to be lower than average local code home per square foot. HERS Index Report estimates energy cost based on number of bedrooms plus one. Only a "confirmed rating" is a diagnostic test. |
| DOE's Home Energy Score Score (1 to 10): _____ <input type="checkbox"/> Official Score <input type="checkbox"/> Unofficial Score | Estimated energy savings for this home: \$ ____/year ____ cKWh rate dated ____/____/____ Energy Savings includes electricity, heating & Cooling. Score above five indicates energy costs are expected to be lower than average local home. Home Energy Score estimates energy cost based on state average energy rates and the home's energy features. |
| Other Energy Score: Range (____ to ____): _____ | Estimated energy savings: \$ ____/year ____ c KWh rate dated ____/____/____ Describe energy label system: _____ |
| Date Verified: ____/____/____ | Score or Rating Version: _____ Organization URL: <input type="checkbox"/> www.resnet.us/ <input type="checkbox"/> www.homeenergyscore.gov <input type="checkbox"/> Other: _____ |
| ABOVE VALID ONLY IF CHECKED: <input type="checkbox"/> Verification reviewed on site <input type="checkbox"/> Verification attached to this report | |

<https://www.appraisalinstitute.org/assets/1/7/ResidentialGreenandEnergyEfficientAddendum.pdf>

Invisible Real Estate Assets: Listing Agents

Populate the MLS Green Fields

Green Certified Yes No Unknown Unspecified

*Green Certification Type A- Energy Star Home Certified B- LEED Certified C- National Green Building Standard D- Other (See Remarks)

Green Certified

Yes No Unknown Proposed Unspecified

* Green Certification Type

A-Energy Star Home Certified C-National Green Building Standard F-Deep Energy Retrofit Certified H-EPA Indoor Air Plus Certified
 B-LEED Certified E-Passive House Certified G-EPA WaterSense Certified D-Other (See Remarks)


HERS Index Score

(Required if Green Certified)

Completion Date of HERS Score

(Required if Green Certified)

Documents that make the invisible – visible; Resources for Appraisers and Agents



| | | |
|--|-------------------|------|
| 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

Home Energy Rating Certificate

Certified Under
LEED (Green) 2.0

★★★★★+

LEED Green Rating
RES Index: 77


| Use | Value | Cost | Notes |
|------------------|-------|-------|-------|
| Heating | 20.1 | \$664 | 80 |
| Cooling | 2.2 | \$109 | 80 |
| Hot Water | 11.9 | \$714 | 80 |
| Lighting | 4.1 | \$244 | 80 |
| Refrigeration | 1.0 | \$14 | 80 |
| Air Conditioning | 1.0 | \$14 | 80 |
| Other | 11.8 | \$754 | 80 |

General Information:
 Location: 1450 N. 1st St., Phoenix, AZ 85004
 Project: 1450 N. 1st St., Phoenix, AZ 85004
 Date: 1/15/2016

Mechanical System Features:
 Heating: Radiant floor heating, Natural gas, 1/2" x 1/2"
 Cooling: 12" condenser coils, 1/2" x 1/2"
 Hot Water: Tankless, Natural gas, 1/2" x 1/2"
 Refrigeration: 1/2" x 1/2"
 Air Conditioning: 12" condenser coils, 1/2" x 1/2"

Building Shell Features:
 Energy Star: 1/2" x 1/2"
 Insulation: 1/2" x 1/2"
 Windows: 1/2" x 1/2"
 Doors: 1/2" x 1/2"

Lighting and Appliance Features:
 Natural Lighting: 1/2" x 1/2"
 Appliances: 1/2" x 1/2"
 Lighting: 1/2" x 1/2"

Home Energy Score

Higher energy use | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Lower energy use

SCORE TODAY: 3 | SCORE WITH IMPROVEMENTS: 7

Estimated annual savings: \$882

ASSESSMENT: Official | April 03, 2017 | ID# 1234567

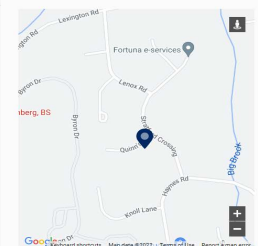
The U.S. Department of Energy's Home Energy Score assesses the energy efficiency of a home based on its structure and heating, cooling, and hot water systems. Learn more at homeenergyscore.gov.

U.S. DEPARTMENT OF ENERGY

RESNET

Home > RESNET HERS Index Search Tool > 19 Stratford Xing

19 Stratford Xing, Avon, CT 06001



HERS Index Score: 53

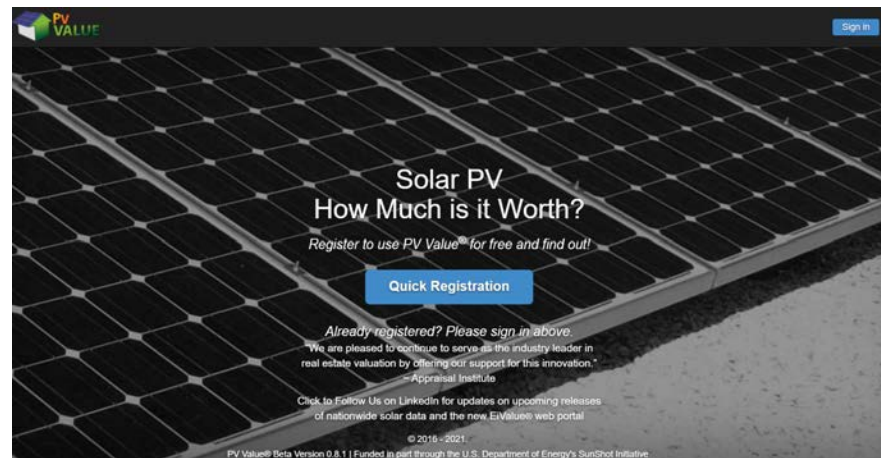
Builder's Name: Sunlight Construction
 HERS Rating Company: Home Energy Technologies, LLC
 Year of Construction: 2015
 Date submitted to Registry: 2016
 Annual Energy Costs: \$3923
 Annual Energy Savings: \$2001
 Energy Star Certified: Yes



Solar PV Value

- Only owned solar PV without a solar loan/UCC filing can be included in the real estate value for mortgage lending.
- A leased system, power purchase agreement, or solar loan with UCC filing are personal property and not part of real estate.

Free Tool for Valuing Solar



<https://www.pvvalue.com/>

| | | | | | | | |
|---|---------------------|--|------------------------------|--|--------------------------|----------------------|-------------------|
| | Beta Version 0.8.1 | File #: | Appraiser Indicated Value: | \$13,824.00 | \$1.20 /watt | | |
| | 04/09/21 9:10:15 AM | NA | Report Prepared By: | | | | |
| Subject Property Data | | | | | | | |
| Address: [REDACTED] | | | | | | | |
| City: [REDACTED] | | State: [REDACTED] | | Zip Code: [REDACTED] | | | |
| Property Type: Commercial | | PV Project Type: Existing | | PV Ownership: Owned | | | |
| Cost Approach Method Physical Age / Life Depreciated Cost | | | | | | | |
| Source: | User 4-1-21 | FL | Gross Replacement Cost New: | \$15,782.40 | \$1.37 /watt | | |
| Life: | 25 | | Straight Line Depreciation: | 60.00 | 60.00 /watt/yr | | |
| Age: | 0 | | Accumulated SL Depreciation: | 60.00 | 60.00 /watt | | |
| Additional Depreciation: None \$ /watt | | | | | | | |
| Additional Depreciation - All forms of loss \$2,188.80 \$0.19 /watt | | | | | | | |
| Estimated Depreciated Value | | | Cost Approach: | | | | |
| \$13,593.60 | | | \$1.18 /watt | | | | |
| Income Approach Method Energy Value DCF | | | | | | | |
| Solar Resource | | O & M Expense | | Utility Rate | | | |
| System Size Watts: | 11,520 | Inverter Size Watts: | 11,400 | NREL Utility Co.: | Florida Power & Light Co | | |
| Module Warranty Yrs: | 30 | Inverter Warranty Yrs: | 15 | NREL Utility Rate: | 6.72 ¢/kWh | | |
| System Age Yrs: | 0 | Inverter Age Yrs: | 0 | User Provided Utility Rate: | 11.50 ¢/kWh | | |
| Remaining Yrs: | 21 | Inverter Replaced: | No | Utility Rate Used: | 11.50 ¢/kWh | | |
| Derate Factor: | 0.70 | Inverter Replacement Cycle Yrs: | 15 | EIA Escalation Rate: | 1.03% CAGR | | |
| Degradation Rate: | 0.50% | Inverter Replacement Cost | | User Provided Esc. Rate: | -% CAGR | | |
| Array Tilt: | 16.4 ° | Survey Data: | 55 ¢/W | Escalation Rate Used: | 1.03% CAGR | | |
| Array Azimuth: | 180 ° | User Provided: | - ¢/W | Comments: | | | |
| Annual kWh Est: | 15,474 | Replacement Cost Used: | 55 ¢/W | | | | |
| | | O & M Exp (future): | \$6,236.00 | | | | |
| | | O & M Exp (discounted): | \$4,250.47 | | | | |
| Cost of Capital | | | | | | | |
| Fannie Mae Date: | | APR 9, 2021 | | 125 Basis Points | | | |
| Fannie Mae Rate: 30 Tr 30 day | | 2.57% | | 8.00% | | | |
| User Provided Interest Rate: | | 6.00% | | 87.5 Basis Points | | | |
| | | | | 8.88% | | | |
| | | | | 50 Basis Points | | | |
| | | | | 8.50% | | | |
| Estimated Energy Value / Income Approach | | WACC Used + Risk Premium = Discount Rate | | Estimated Energy Value / Income Approach | | | |
| | | | | \$17,159.72 | | | |
| | | | | \$1.40 /watt | | | |
| | | | | \$17,782.78 | | | |
| | | | | \$1.54 /watt | | | |
| | | | | \$18,411.86 | | | |
| | | | | \$1.60 /watt | | | |
| Estimate of Accumulated Energy Production / Income Approach | | | | | | | |
| Year | Annual kWh | Low Estimated Value | | Avg Estimated Value | | High Estimated Value | |
| | | Annual Value | Accumulated Value | Annual Value | Accumulated Value | Annual Value | Accumulated Value |
| 1 | 15,297 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2 | 15,219 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 | 15,242 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4 | 15,195 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5 | 15,087 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6 | 15,010 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7 | 14,932 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8 | 14,855 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9 | 14,778 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10 | 14,700 | 1,690.53 | 1,690.53 | 1,690.53 | 1,690.53 | 1,690.53 | 1,690.53 |
| 11 | 14,623 | 1,598.22 | 3,288.75 | 1,603.75 | 3,294.29 | 1,609.48 | 3,300.01 |
| 12 | 14,546 | 1,510.91 | 4,799.66 | 1,521.36 | 4,815.67 | 1,532.26 | 4,832.27 |
| 13 | 14,468 | 1,428.32 | 6,227.99 | 1,443.21 | 6,258.88 | 1,458.71 | 6,290.98 |
| 14 | 14,391 | 1,350.21 | 7,578.20 | 1,369.01 | 7,607.89 | 1,388.65 | 7,679.64 |
| 15 | 14,313 | 1,276.34 | 8,854.54 | 1,298.58 | 8,926.47 | 1,321.02 | 9,001.55 |
| 16 | 14,236 | 1,206.47 | 10,061.01 | 1,231.75 | 10,077.76 | 1,258.35 | 10,099.44 |
| 17 | 14,159 | 1,140.36 | 11,191.37 | 1,168.32 | 11,191.37 | 1,197.81 | 11,207.25 |
| 18 | 14,081 | 1,077.90 | 12,239.27 | 1,108.12 | 12,239.27 | 1,140.15 | 12,247.40 |
| 19 | 14,004 | 1,019.81 | 13,209.08 | 1,050.99 | 13,209.08 | 1,085.23 | 13,217.63 |
| 20 | 13,927 | 965.92 | 14,103.16 | 996.78 | 14,103.16 | 1,032.92 | 14,117.85 |
| 21 | 13,849 | 916.07 | 15,003.63 | 945.33 | 15,003.63 | 983.11 | 15,018.07 |
| 22 | 13,772 | 869.10 | 15,880.73 | 896.51 | 15,880.73 | 935.06 | 15,828.32 |
| 23 | 13,694 | 824.84 | 16,735.57 | 850.19 | 16,735.57 | 890.48 | 16,738.80 |
| 24 | 13,617 | 783.15 | 17,568.42 | 806.23 | 17,568.42 | 847.46 | 17,549.32 |
| 25 | 13,540 | 743.90 | 18,379.32 | 764.53 | 18,379.32 | 806.48 | 18,360.00 |
| 26 | 13,462 | 706.05 | 19,168.27 | 725.05 | 19,168.27 | 767.48 | 19,170.80 |
| 27 | 13,385 | 669.58 | 19,935.69 | 687.40 | 19,935.69 | 730.31 | 19,981.81 |
| 28 | 13,308 | 634.47 | 20,681.16 | 651.78 | 20,681.16 | 694.93 | 20,693.04 |
| 29 | 13,230 | 578.70 | 21,402.86 | 617.96 | 21,402.86 | 661.25 | 21,404.49 |
| 30 | 13,153 | 548.78 | 22,101.64 | 585.91 | 22,101.64 | 629.17 | 22,106.00 |

AIRGEEA Solar Page Gives Inputs for PV Value – Discounted Cash Flow of Energy Produced

| | | |
|---|---|--|
| Solar Panels | | |
| The following items are considered within the appraisal analysis of the subject property: | | |
| Solar Photovoltaic (Electric) System | | |
| Type of Ownership | Array # | Array # (if applicable) |
| | <input type="checkbox"/> Leased <input type="checkbox"/> Owned <input type="checkbox"/> * Solar Loan with UCC Filing <input type="checkbox"/> Power Purchase Agreement (PPA) If solar loan has UCC Filing, it is considered personal property and should not be included in market value. | |
| Panel Specifications | System Size: _____ kW (1kW = 1000 Watts) | System Size: _____ kW (1kW = 1000 Watts) |
| | Year Installed: _____ | Year Installed: _____ |
| Array Placement | <input type="checkbox"/> Fixed Mount <input type="checkbox"/> Tracking Mount Tilt / Slope: _____ *Azimuth: _____ | Tilt / Slope: _____ Azimuth: _____ |
| | Manufacturer: _____ Warranty on Panels: _____ years | Manufacturer: _____ Warranty on Panels: _____ years |
| Inverter Specifications | Number of Inverters per Array: _____ | Number of Inverters per Array: _____ |
| | Year Installed: _____ | Year Installed: _____ |
| Energy Storing Batteries | Battery Type: <input type="checkbox"/> Lithium-ion <input type="checkbox"/> Lithium-ion Polymer <input type="checkbox"/> Lead Acid <input type="checkbox"/> Lead Calcium <input type="checkbox"/> AGM <input type="checkbox"/> GEL Manufacturer: _____ Storage Capacity: _____ kWh Warranty Term: _____ years Year Installed: _____ | |
| | Charge / kWh from Utility \$ _____ / kWh | |

<https://www.pvvalue.com/>

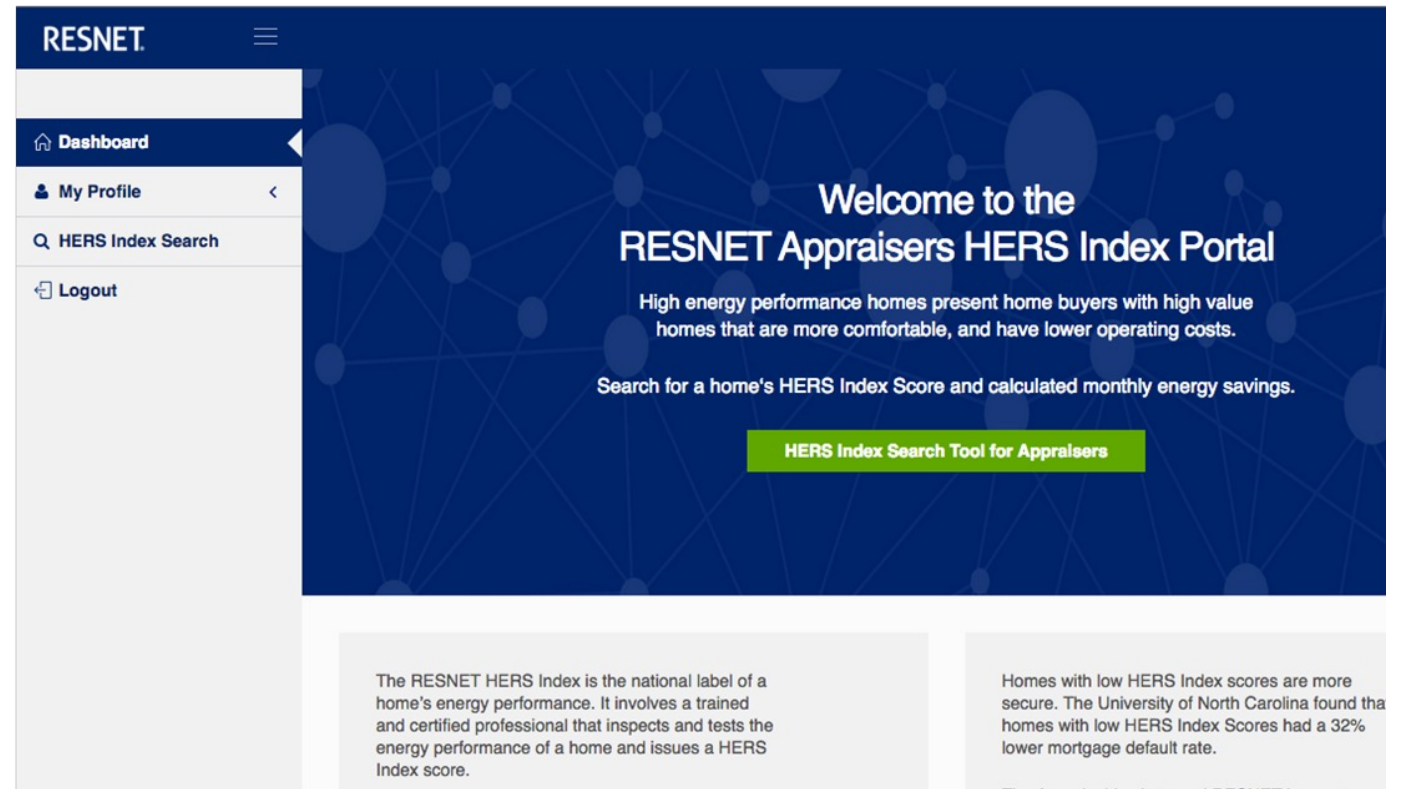
Copyright - Sandra K Adomatis, SRA

The image features four stylized, 3D-rendered houses of increasing size, arranged in a line from left to right on a wooden surface. Each house has a white body and a red roof. The text is overlaid on the houses, and a solid orange bar is at the bottom.

Databases and resources that provide appraisers and/or real estate agents with the basis for supported opinions.

The Appraiser Portal

- Available to all licensed appraisers and free
- Launched in March of 2018
- More than 3,600 appraisers with access
- To register send an email to info@resnet.us



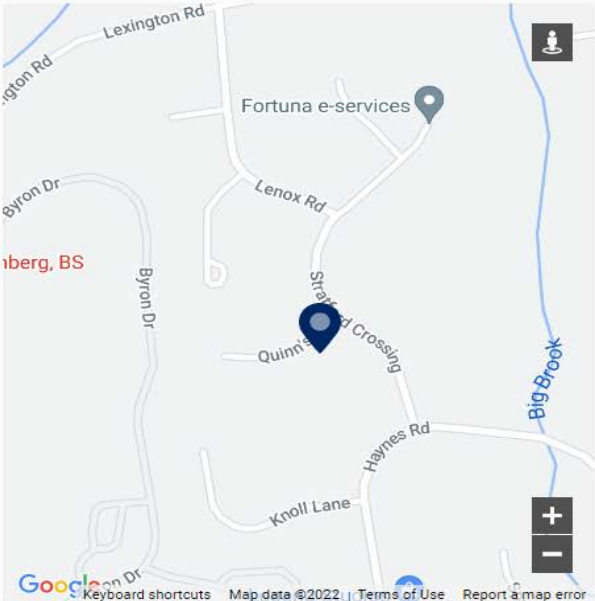
<https://portal.resnet.us/>

MLS Listing and Verification of the Energy Features through RESNET

RESNET

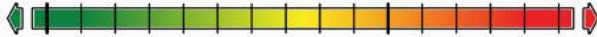
Home > RESNET HERS Index Search Tool > 19 Stratford Xing

19 Stratford Xing, Avon, CT 06001



HERS Index Score

53



| | |
|-----------------------------|-------------------------------|
| Builder's Name: | Sunlight Construction |
| HERS Rating Company: | Home Energy Technologies, LLC |
| Year of Construction: | 2015 |
| Date submitted to Registry: | 2016 |
| Annual Energy Costs: | \$3923 |
| Annual Energy Savings: | \$2001 |
| Energy Star Certified: | Yes |

< Back to search results

<https://www.hersindex.com/hers-rated-home-search/>

To find out if a home has been HERS®-rated, enter its full address in fields below.

[Find a HERS® Rated Home](#)

Public access to HERS Rated homes

Merging the MLS Sales with RESNET Rated Homes gives data to support value opinion using pairings.

HERS Rated Sales

| Identifier | Sale Price | GLA/SF | HERS Rating |
|-----------------------|------------------|-------------|-------------|
| 1. | \$575,000 | 1,895 | 56 |
| 2. | \$635,000 | 2,100 | 54 |
| 3. | \$595,000 | 1,995 | 45 |
| 4. | \$560,000 | 1,795 | 52 |
| 5. | \$625,000 | 2,225 | 55 |
| Avg Sale Price | \$598,000 | 2002 | 52 |

No HERS Rating

| Identifier | Sale Price | GLA/SF |
|-----------------------|------------------|-------------|
| 1. | \$570,000 | 1,825 |
| 2. | \$585,000 | 1,900 |
| 3. | \$625,000 | 2,100 |
| 4. | \$555,000 | 1,765 |
| 5. | \$615,000 | 2,250 |
| Avg Sale Price | \$590,000 | 1968 |

\$8,000 attributed to Energy Efficiency or 1.36%

Fall of 2019 Release

New White Paper by Freddie Mac

Summary of Findings

Using a national random sample, we conducted an analysis of energy-efficient homes rated between 2013 and 2017 and found:

- From the property value analysis, rated homes are sold for, on average, 2.7% more than comparable unrated homes
- Better-rated homes are sold for 3-5% more than lesser-rated homes.
- From the loan performance analysis, the default risk of rated homes is not, on average, different from unrated homes, once borrower and underwriting characteristics are considered.
- Loans in the high debt-to-income (DTI) bucket (45% and above) that have ratings, however, appear to have a lower delinquency rate than unrated homes.

- Source: ***Energy Efficiency: Valued Added to Properties and Loan Performance***, Freddie Mac, Dated October 2019
<https://sf.freddie.mac.com/articles/insights/energy-efficient-home-improvements-can-increase-home-value>



Learn
More

Single-Source Building Performance Data

address, neighborhood, city, or zip code



Can the buyer finance the additional costs for energy/green features?

Fannie Mae and Freddie Mac Selling Guidelines require the appraiser to describe the energy/green features and analyze the market's reaction in the sales transaction.

VA Pamphlet addresses energy efficiency features and allows buyer to finance \$6,000 over the mortgage amount without an appraisal to make energy upgrades.

FHA has an Energy Efficient Mortgage and the Handbook addresses identifying these features and analyzing them in the appraisal.



File Pay Refunds Credits & Deductions Forms & Instructions

[Home](#) / [News](#) / Inflation Reduction Act of 2022

Inflation Reduction Act of 2022

Form **5695**
Department of the Treasury
Internal Revenue Service

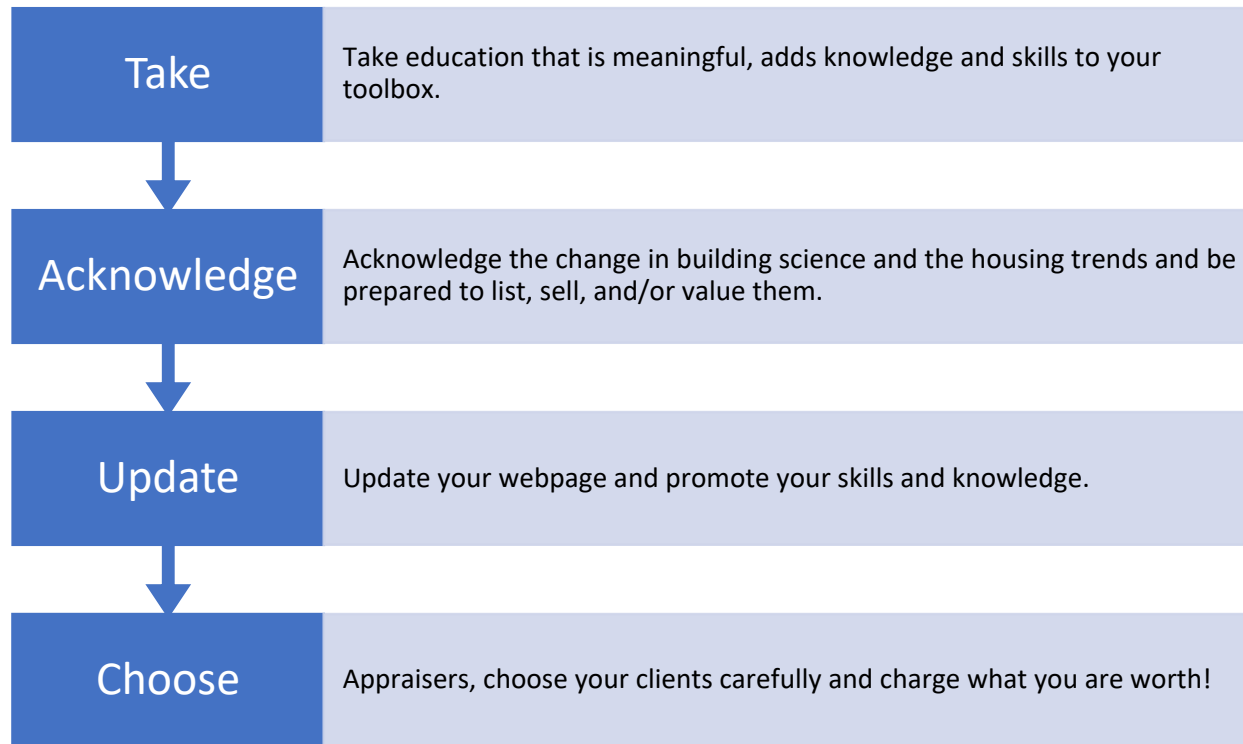
Residential Energy Credits
Go to www.irs.gov/Form5695 for instructions and the latest information.
Attach to Form 1040, 1040-SR, or 1040-NR.

OMB No. 1545-0074
2022
Attachment
Sequence No. **158**

**Might this be a driver
for energy efficient
upgrades?**

<https://www.irs.gov/inflation-reduction-act-of-2022>

Take steps to ensure your future as a real estate professional.



Energy Efficient, Green Homes, Homes with Accessory Dwelling Units, and Solar PV Homes need valuation professionals with knowledge & tools.

• AI Green Registry Course Requirements

Valuation of Sustainable Buildings Registry

Residential Series

Commercial Series

Introduction to Green Buildings:
Principles & Concepts
(classroom/online)

Introduction to Green Buildings:
Principles & Concepts
(classroom/online)

Case Studies in Appraising Green
Residential Buildings
(classroom/online)

Practical Applications in Appraising
Green Commercial Properties
OR
Case Studies in Appraising Green
Commercial Buildings *(online)*

Residential & Commercial Valuation
of Solar
(classroom/online)

Residential & Commercial Valuation
of Solar
(classroom/online)

https://www.appraisalinstitute.org/assets/1/7/Green_FAQs.pdf

Appraisal Institute Green Appraiser Registry

Take the class and pass the exam.

Your name goes onto the registry.

You do NOT have to be an Appraisal Institute member.

Become a GREEN Designated Agent

Member Benefit

The Center for REALTOR® Development, in partnership with NAR REALTOR Benefits®, offers you a 10% discount on the online course for NAR's GREEN designation course, People, Property, Planet, Prosperity. Discount/Offer Code: **GREENNOW**. Code must be applied at the time of purchase.



Get the offer 

<https://www.nar.realtor/realtor-benefits-program/education/nars-green-designation-course-discounts>

Understand **resource-efficient** homes and how to market them with **NAR's Green Designation.**



Accessible data sources

RESNET.US Appraisal Portal - <https://portal.resnet.us/>

Green Building Registry - <https://us.greenbuildingregistry.com/>

[AI Residential Green and Energy Efficient Addendum](#)

PV Value - <https://www.pvvalue.com/>

National Green Building Standard – NGBS Open Data -
<https://www.homeinnovation.com/ngbsgreenstats>

Florida Green Building Coalition -
<https://www.floridagreenbuilding.org/index.cfm/go/public.certifiedProjects>



SUSTAINABILITY SUMMIT 2023

**Sandra K. Adomatis, SRA, LEED Green Assoc., GREEN
2023 Appraisal Institute President Elect
E-mail: Sadomatis@appraisalinstitute.org**



NARdotRealtor



nar.realtor/sustainability-summit

[#narsustainabilitysummit](https://twitter.com/narsustainabilitysummit)

**NAR SUSTAINABILITY
PROGRAM**