WHAT'S IT WORTH: CHALLENGES WITH ACCESSING AND VALUING ENERGY EFFICIENCY IN THE REAL ESTATE TRANSACTION

Craig Foley, moderator
John Breault, State-Wide MLS, Rhode Island
Laurie Fielder, VSECU
Joe Buonannata, Connecticut Green Bank
Rob Lynch, Maine Appraisal Institute Chapter
Gayle Oberg, Little River Realty

HELIX

Home Energy Labeling Information eXchange

A3P STRATEGIES

CLEARLYENERGY

DOER
Massachusetts Department of Energy Resources

EFG
ENERGY FUTURES GROUP

NASEO
National Association of State Energy Officials

neep

SUSTAINABLE REAL ESTATE CONSULTING SERVICES

Vermont Energy Investment Corporation

VERMONT

VL
VERMONT LAW SCHOOL

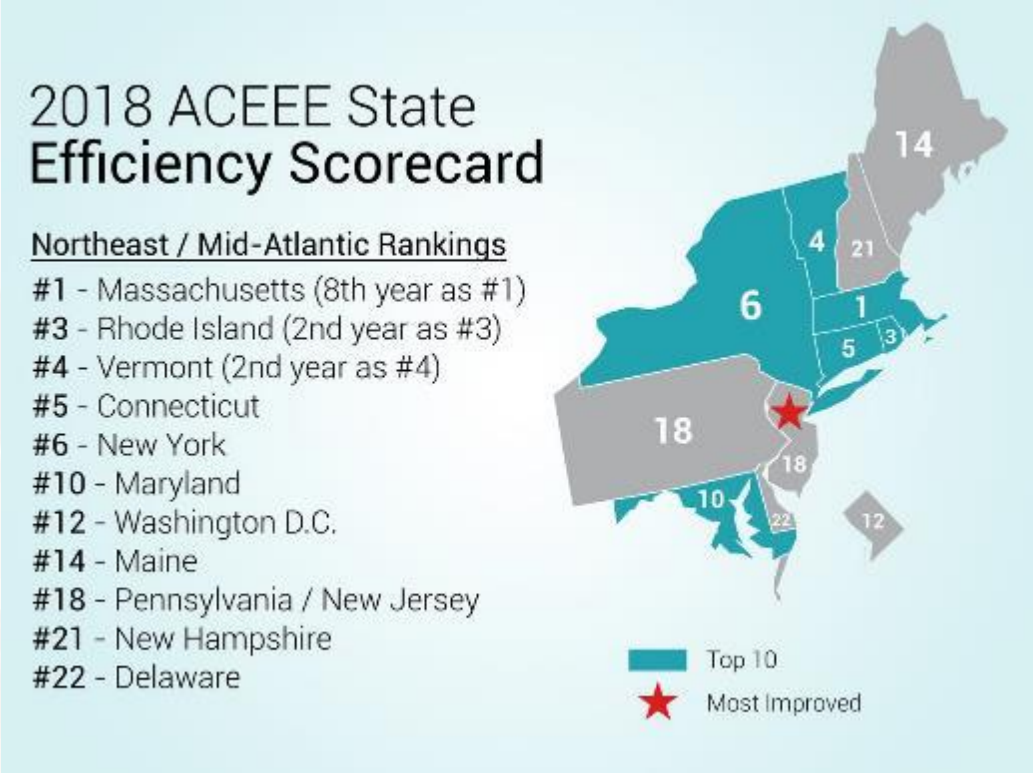
What's It Worth? Challenges with Accessing and Valuing EE in the RE Transaction

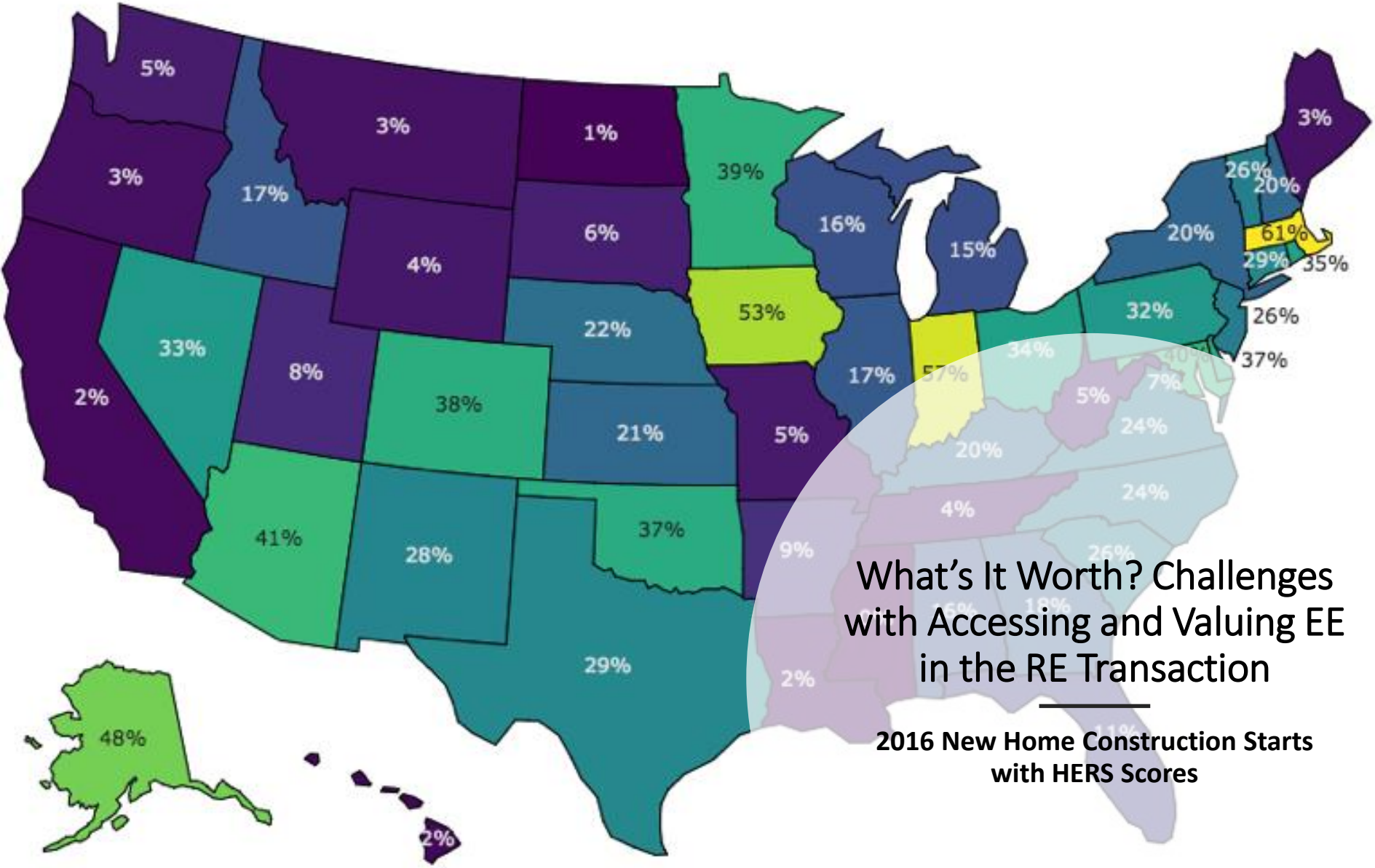
Introduction: Baseline Challenges

Work our way from the **end of the real estate transaction to the beginning**

- Laurie Fielder, VGREEN Program Director, VSECU
- Rob Lynch, SVP, United Valuation Group, Scarborough, ME
- Gayle Oberg, Owner/Broker, Little River Realty, Stowe, VT
- John Breault, VP, MLS & Member Services, RIAR and Statewide MLS
- Joe Buonannata, Associate Manager, Residential Financing Programs, Connecticut Green Bank

What's It Worth? Challenges with Accessing and Valuing EE in the RE Transaction



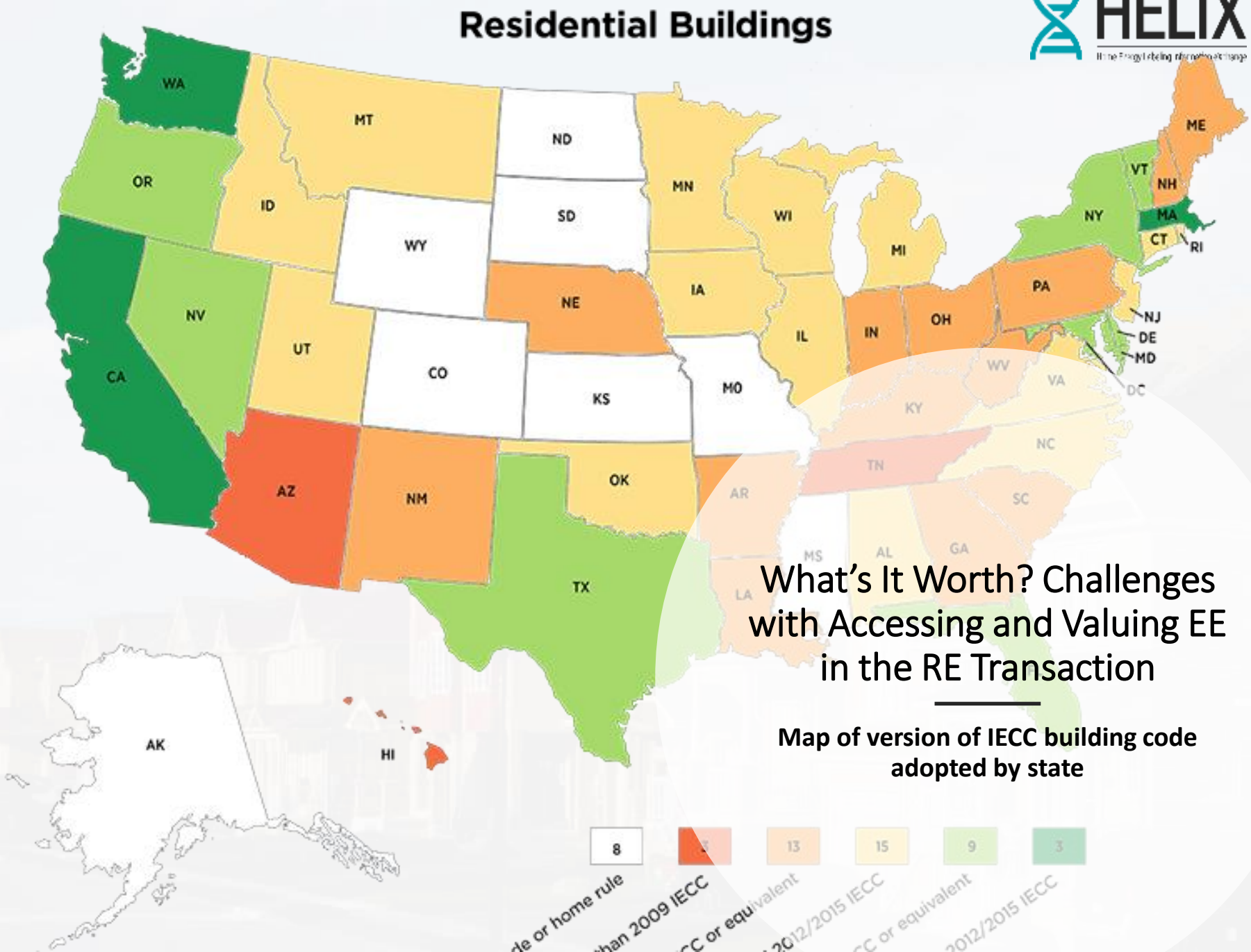


What's It Worth? Challenges with Accessing and Valuing EE in the RE Transaction

2016 New Home Construction Starts with HERS Scores

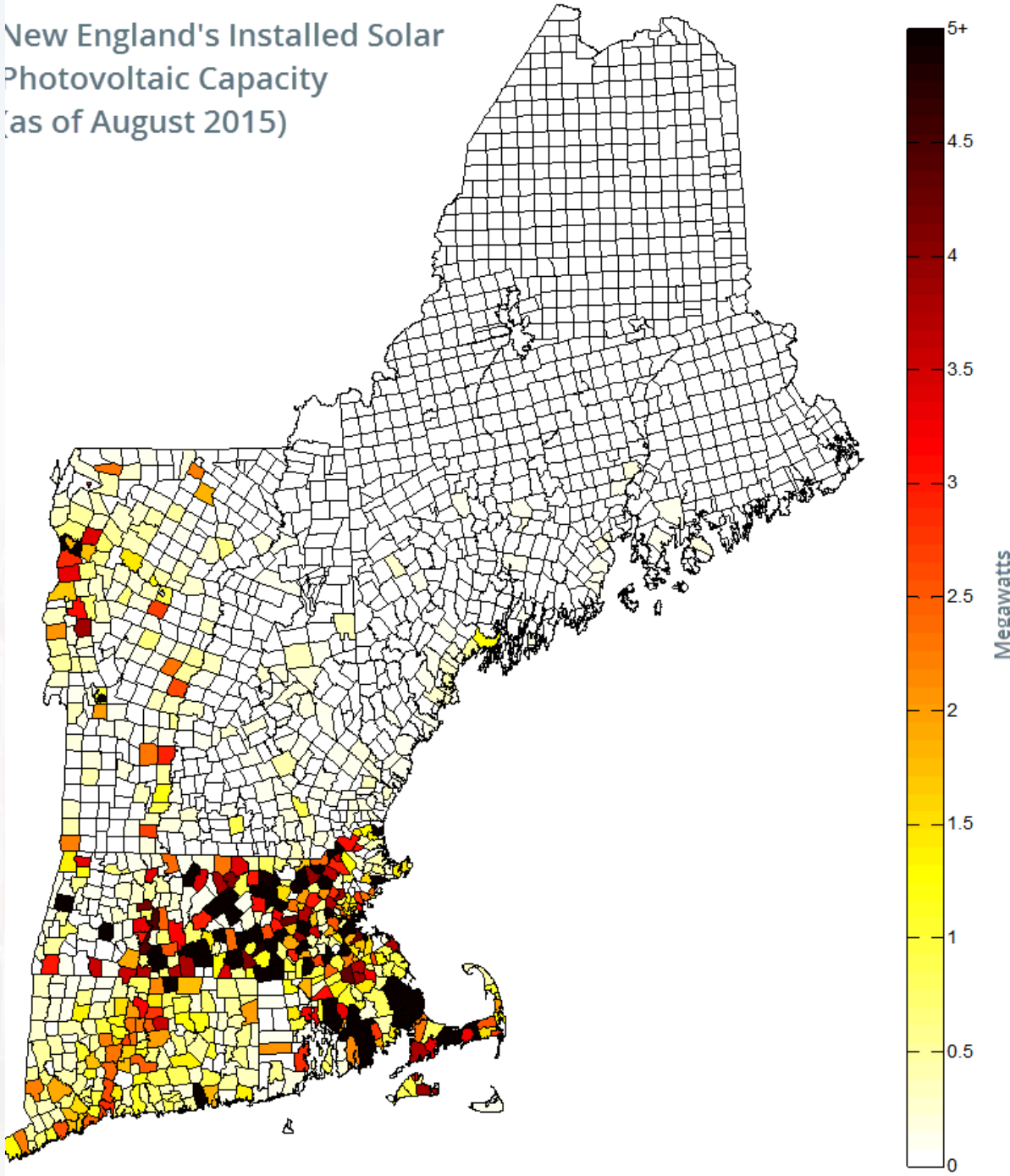
What's It Worth? Challenges with Accessing and Valuing EE in the RE Transaction

Map of version of IECC building code adopted by state

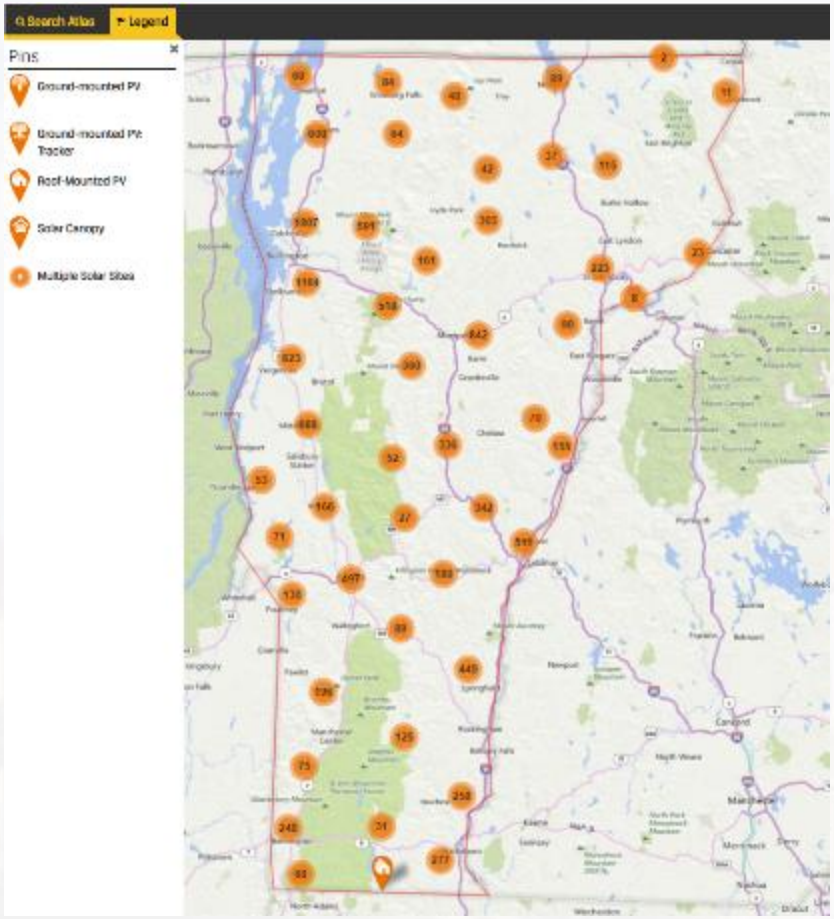


What's It Worth? Challenges with Accessing and Valuing EE in the RE Transaction

2015 Map of installed solar PV capacity in New England



What's It Worth? Challenges with Accessing and Valuing EE in the RE Transaction



VSECU

A credit union for everybody in Vermont

MEMBER-OWNED • NOT-FOR-PROFIT • 65,000+ MEMBERS
9 BRANCH LOCATIONS • MISSION DRIVEN • SOLAR POWERED
TRADITIONAL BANKING PRODUCTS & SERVICES, MOBILE & ONLINE

VSECU is committed to improving the lives of Vermonters by empowering the possibilities for greater social, environmental, and financial prosperity.

WHO CAN JOIN?
Anyone who lives or works in Vermont • NESEA members

VGREEN

CLEAN ENERGY FINANCE PROGRAM

Flexible, affordable financing options designed to maximize the benefits of the energy savings achieved through upgrades

- ENERGY IMPROVEMENT LOANS

  Flexible terms up to 20 years, maximum loan amount of $60,000

- VGREEN ITC LOAN

  12-year term and lower payments for first 15 months, maximum loan amount of $60,000

- DISCOUNTED ENERGY IMPROVEMENT HOME EQUITY LOAN

  Discounted rates, terms up to 15 years, no closing costs, no pre-payment penalties

- ENERGY IMPROVEMENT MORTGAGE

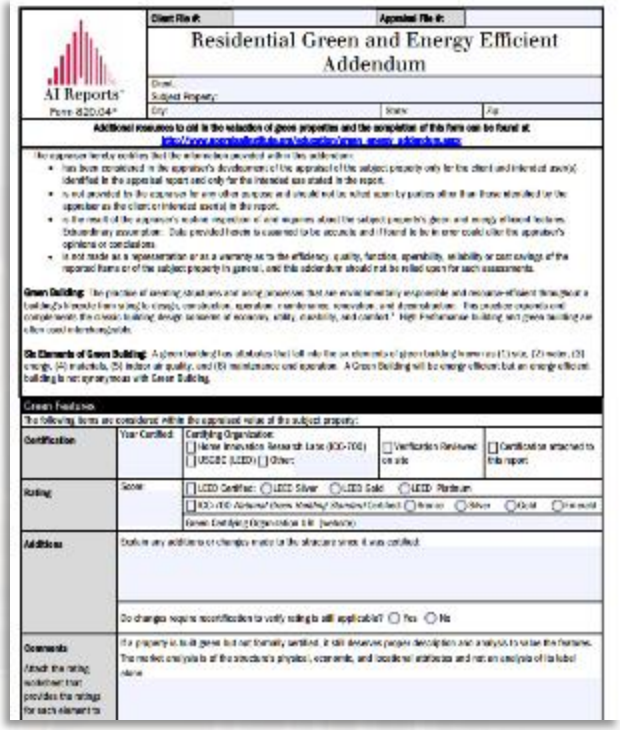
  Fixed rate, terms up to 40 years, energy audit required

- OFF-GRID MORTGAGE

  Fixed rate, 30-year term, maximum loan-to-value = 70%, estimate of cost to connect to the grid required

THE GREEN APPRAISAL

- Appraisal ordered by lender
- Tell lender about special 'green' certifications, labels, or features, for example:
  - ✓ HERS (Home Energy Rating Score)
  - ✓ Home Performance with ENERGY STAR® certified
  - ✓ Certifications from Efficiency Vermont
  - ✓ LEED certified
  - ✓ Solar PV
- Lender requests a 'Residential Green and Energy Efficient Addendum' for appraisal

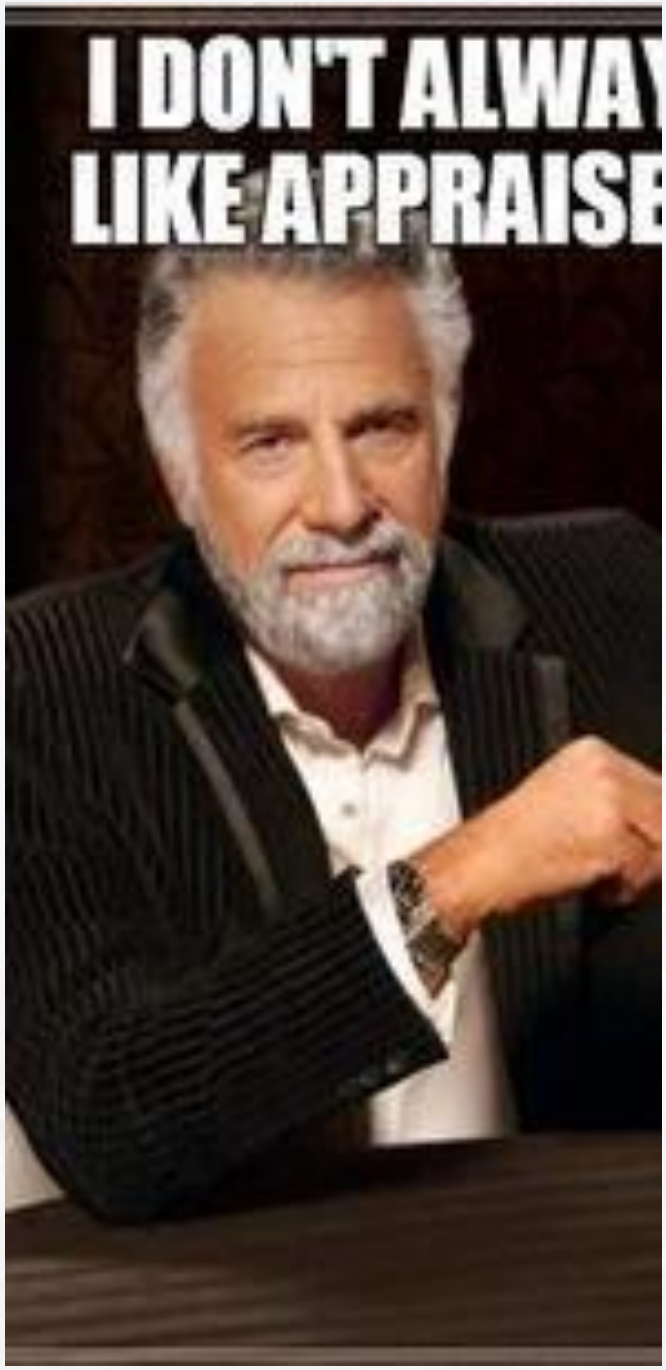


AI Reports

Form 820.04

Residential Green and Energy Efficient Addendum

http://www.appraisalinstitute.org/education/green_energy_addendum.aspx



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): _____	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*

What's It Worth? Challenges with Accessing and Valuing EE in the RE Transaction

HELIX

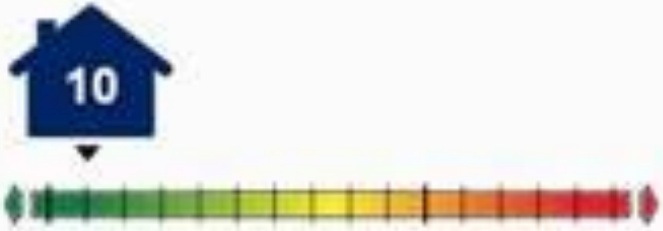
RESNET

Home > RESNET HERS Index Search Tool > 46 Intervale Rd

- Dashboard
- HERS Index Search
- My Profile
- Logout

46 Intervale Rd, Freeport, ME 04032

HERS Index Score



Builder's Name:	BrightBuilt
HERS Rating Company:	-
Year of Construction:	2016
Date submitted to Registry:	2017
Annual Energy Costs:	$460
Annual Energy Savings:	$3193
Energy Star Certified:	Yes

‹ Back to search results

Green Customer Display
Page 1 of 2

Energy Star Certified Home

NEREN
VT

Residential	Single Family	**Lot 13 Carrie Lane/Waterbury Commons Lane**		Listed: 1/29/2016 $380,000
4469057	Active	**Waterbury**	**VT 05676** Unit/Lot	Closed:

Property Panorama VT URL

County VT-Washington
Village/Dist/Locale
Construction Status Pre-Construction
Year Built 0
Style Cape
Color
Total Stories 2
Zoning res
Taxes TBD Yes
Tax - Gross Amount $0.00
Tax Year 2016
Tax Year Notes
Owned Land
Lot Size Acres 0.320000
Lot - Sqft 13,939
Common Land Acres
Basement Yes
Basement Access Type Interior

Rooms - Total 6
Bedrooms - Total 3
Baths - Total 3
Baths - Full 2
Baths - 3/4 0
Baths - 1/2 1
Baths - 1/4 0
SqFt-Apx Fin Above Grade 1,616
$/SqFt Fin. Above Grade
SqFt-Apx Fin AG Source Builder
SqFt-Apx Unfn Above Grade 0
SqFt-Apx Unfn AG Source
SqFt-Apx Fin Below Grade 0
SqFt-Apx Fin BG Source
SqFt-Apx Unfn Below Grade 900
SqFt-Apx Unfn BG Source Builder
SqFt-Apx Total Finished 1,616
Days On Market 1034
Delayed Showing No
Date - Showings Begin

Remarks - Public Waterbury Commons is another great Waterbury neighborhood! These custom homes incorporate contemporary design elements with wonderful Vermont farmhouse architecture. You are going to love central living in the heart of Waterbury. Close to an incredible array of amenities. Amazing home designs with impressive features in a wonderful neighborhood setting. Built by award winning Arnot Development Group where attention to detail is their trademark. Employing contemporary building theory each home is constructed to incredible standards. Every Waterbury Commons Home is certified as 5 Star Energy Rated by Efficiency Vermont. Other home designs available! Choose your favorite finishes and make this house your own! Municipal sewer & water. Attached specs may not represent main photo. Final sale price subject to buyer customizations. Priced with the Chelsea design at 290k. Buyers can choose any ADG package or create a custom design.
Directions Stowe St, in Waterbury, to Lincoln St. Take right up Perry Hill and development is on your right. Bear left for Carrie Lane and phase 2.

"certified as 5 Star Energy Rated by Efficiency VT"

Water Body Access
Water Body Type
Water Body Name
Water Frontage Length
Water Restrictions

ROW - Parcel Access
ROW - Length
ROW - Width
ROW to other Parcel

Current Use No
Flood Zone No
Seasonal No
Land Gains To Be Determined
Resort

Timeshare/Fract. Ownrshp No
T/F Ownership Amount
T/F Ownership Type
Foreclosed/Bank-Owned/REO No

Kitchen 1
Dining Room 1
Mudroom 2
Family Room 1
Master Bedroom 2
Bedroom 1
Bedroom 2
Bath - Full 2
Bath - Full 2
Bath - 1/2 1

Map
Block
Lot
SPAN Number 696-221-11770
Property ID
Deed - Recorded Type Warranty
Deed - Book 341
Deed - Page 250-254
Deeds – Total

School - District Washington West
School - Elementary Thatcher Brook Primary Sch
School - Middle/Jr Crossett Brook Middle School
School - High Harwood Union High School

Green Verification Progrm ENERGY STAR Certified Homes
Green Verificatn Progrm 2
Green Verificatn Progrm 3

Power Production Type
Power Production Type 2

Features - Exterior Porch - Covered, Window Screens
Features - Interior Dining Area, Fireplace - Gas, Laundry Hook-ups, Master BR w/ BA, Walk-in Closet

Printed: 11/28/2018 03:49 PM Page 1 of 2

Green Customer Display Sold MLS Data Sheet: Power Production: Photovoltaics

Residential	Single Family	483 Twin Peaks Road			Listed: 8/2/2018	$399,500
4710685	Closed	Waterbury	VT 05677	Unit/Lot	Closed: 10/12/2018	$375,000

Property Panorama VT URL

County VT-Washington
Village/Dist/Locale
Construction Status Existing
Year Built 1980
Style Cape, Contemporary
Color Cedar
Total Stories 1.75
Zoning Res
Taxes TBD No
Tax - Gross Amount $5,862.24
Tax Year 2018
Tax Year Notes
Owned Land Yes
Lot Size Acres 2.800000
Lot - Sqft 121,968
Common Land Acres
Basement No
Basement Access Type

Rooms - Total 7
Bedrooms - Total 3
Baths - Total 2
Baths - Full 0
Baths - 3/4 2
Baths - 1/2 0
Baths - 1/4 0
SqFt-Apx Fin Above Grade 2,163
$/SqFt Fin. Above Grade
SqFt-Apx Fin AG Source Municipal
SqFt-Apx Unfn Above Grade 0
SqFt-Apx Unfn AG Source Measured
SqFt-Apx Fin Below Grade 0
SqFt-Apx Fin BG Source Measured
SqFt-Apx Unfn Below Grade 0
SqFt-Apx Unfn BG Source Measured
SqFt-Apx Total Finished 2,163
Days On Market 23
Delayed Showing No
Date - Showings Begin

Remarks - Public Welcome to this country home, just minutes from the Village. Nestled on the Stowe side of Waterbury, this Cedar sided contemporary c has combined design elements that harmonize with its natural surroundings. River-run stone landscaping walls curve around area planting beds for vegetables blooming flowers. Relax on the deck, in the hot tub or in front of the firepit and absorb the peace and tranquility of the mature trees and wildlife. Inside you'll find Kitchen-Living room with large center island, perfect for entertaining. The dining room has direct access to the outside deck for grilling. Rich Mahogany hardwood flo accent the first floor. Pleasant Master bedroom features a nook area with curved wall ideal for additional storage and bookshelves. The huge bonus room over the garag has access from both the master bedroom and first floor providing more living area, hobby room or home office space. Most time will be spent relaxing in the nicely appointed 3 season enclosed front porch with ceiling fans and wall lights. Owned solar panels take a big bite out of the monthly electrical costs. Most of the home has been updated with spray foam insulation that ease heating costs. Heated 2 car garage will keep the snow off your cars in the winter. Take a walk (or bike) in the wooded path out back that neighbors lands of the private Country Club of Vermont.
Directions From Route 100 north just past Ben & Jerry's turn onto Guptil Road, 0.9 miles to Kneeland Flats Road, 0.4 miles to right on Twin Peaks Road, home #483 on Left.

"Solar panels take a big bite out of monthly electrical costs"

Water Body Access
Water Body Type
Water Body Name
Water Frontage Length
Water Restrictions

ROW - Parcel Access
ROW - Length
ROW - Width
ROW to other Parcel

Current Use
Flood Zone No
Seasonal No
Land Gains
Resort

Timeshare/Fract. Ownrshp No
T/F Ownership Amount
T/F Ownership Type
Foreclosed/Bank-Owned/REO No

Kitchen	1	10 x 16
Living Room	1	11 x 13
Dining Room	1	12 x 17
Bedroom	1	10 x 12
Master Bedroom	2	15 x 17
Bedroom	2	13 x 15
Bonus Room	2	11 x 25
Laundry Room	1	9 x 11

Map 13
Block 214
Lot 0
SPAN Number 969-221-11050
Property ID 514-0483
Deed - Recorded Type Warranty
Deed - Book 179
Deed - Page 64
Deeds - Total

School - District Harwood UHSD 19
School - Elementary Thatcher Brook Primary Sch
School - Middle/Jr Harwood Union Middle/High
School - High Harwood Union High School

Green Verification Progrm
Green Verificatn Progrm 2
Green Verificatn Progrm 3

Power Production Type Photovoltaics
Power Production Type 2

Green Customer Display Sold MLS Data Sheet: Power Production: Photovoltaics

4710685

Development / Subdivision Twin Peak
Planned Urban Developmt
Covenants Yes
Easements Yes

Assessment Year
Assessment Amount
Tax Class Homestead
Tax Rate

Condo Name
Building Number
Floor Number
Units Per Building
Condo Limited Common Area
Assessments - Special

Deed 2 - Book
Deed 2 - Page
Deed 3 - Book
Deed 3 - Page
Deed 4 - Book
Deed 4 - Page
Deed 5 - Book
Deed 5 - Page
Surveyed Yes
Surveyed By Valley Surveyors Inc
Plan Survey Number
Footprint

Condo Fees
Fee
Fee Frequency
Cooling Other
Electric Circuit Breaker(s), Solar PV Seller Owned
Heating Stove - Wood, Wall Units
Heat Fuel Gas - LP/Bottle, Wood
Sewer 1000 Gallon, Leach Field, Leach Field - Conventional, Septic
Water Drilled Well
Water Heater Electric, Owned

Cable Company Suddenlink
Electric Company Green Mountain Power
Fuel Company Blumes Energy
Phone Company Consolidated

Mobile Park Name
Mobile Co-Op
Mobile Park Approval
Mobile Must Move
Mobile Make
Mobile Model Name
Mobile Serial Number
Mobile Anchor

Rented
Rental Amount
Residence

Area Description Acute Golf Course, Near Country Club, Near Golf Course, Near Paths, Near Skiing
Lot Description Country Setting, Walking Trails, Wooded
Construction Wood Frame
Foundation Slab - Concrete
Exterior Cedar, Shake, Wood
Roof Metal, Standing Seam
Appliances Dishwasher, Microwave, Range - Gas, Refrigerator
Equipment Air Conditioner, CO Detector, Smoke Detector, Stove Wood
Flooring Carpet, Concrete, Hardwood, Slate/Stone, Tile
Garage Yes
Garage Capacity 2
Garage Type Attached
Garage Description Auto Open, Direct Entry, Finished, Heated
Driveway Crushed Stone
Parking Garage, Off Street, Parking Spaces 5
Features - Accessibility 1st Floor 3/4 Bathroom, 1st Floor Bedroom, Bathroom w/Step-in Shower, 1st Floor Laundry

Roads Dirt-Air, Gravel, Public
Road Frontage Yes
Road Frontage Length 164
Possession At Closing
Items Excluded
Documents Available Covenants, Deed, Property Disclosure, Survey, Tax Map

Auction No
Date - Auction
Auction Time
Auction Price Determined By
Auctioneer - Responsible
Auctioneer License Number

Gayle Oberg

Cell: 802-279-2316

gayle@theobergteam.com

Little River Realty

Off: 802-253-1553

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HELIX

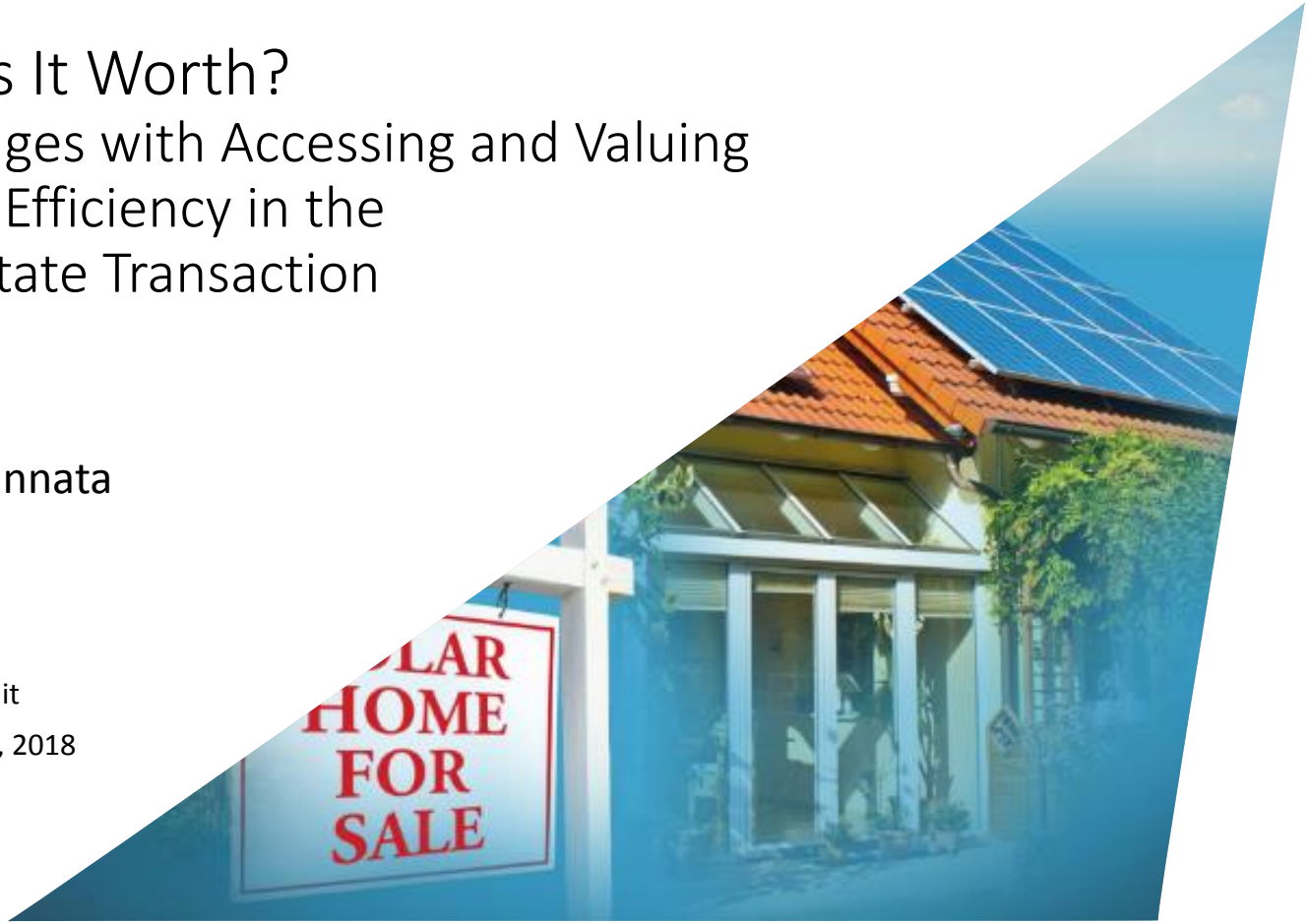
CONNECTICUT
GREEN BANK

What's It Worth?

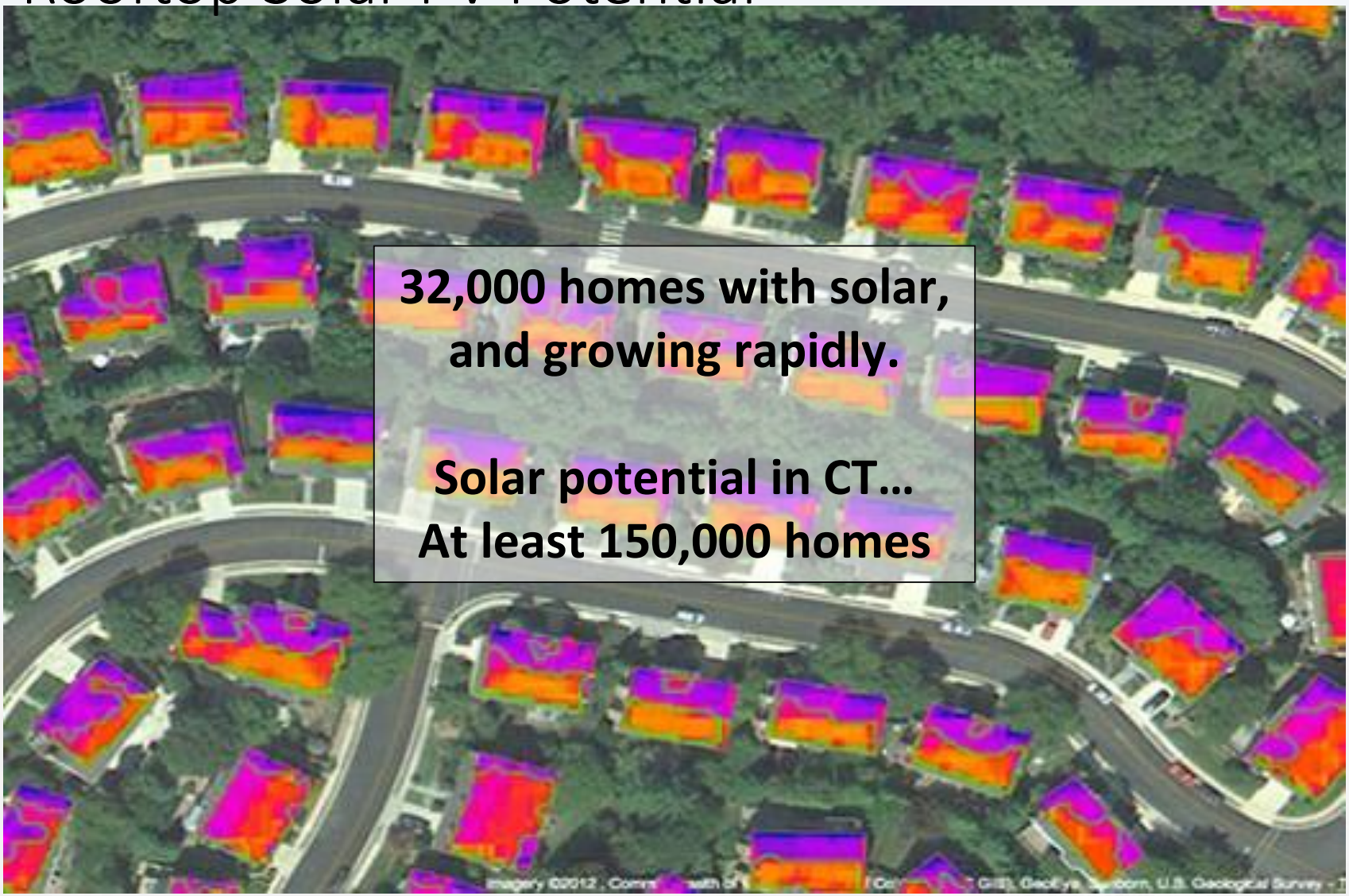
Challenges with Accessing and Valuing Energy Efficiency in the Real Estate Transaction

Joe Buonannata

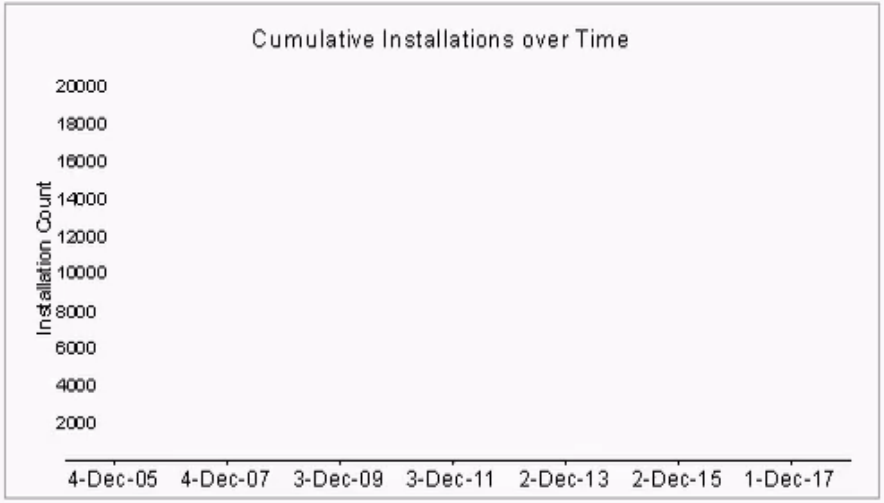
- HELIX Summit
- December 7, 2018

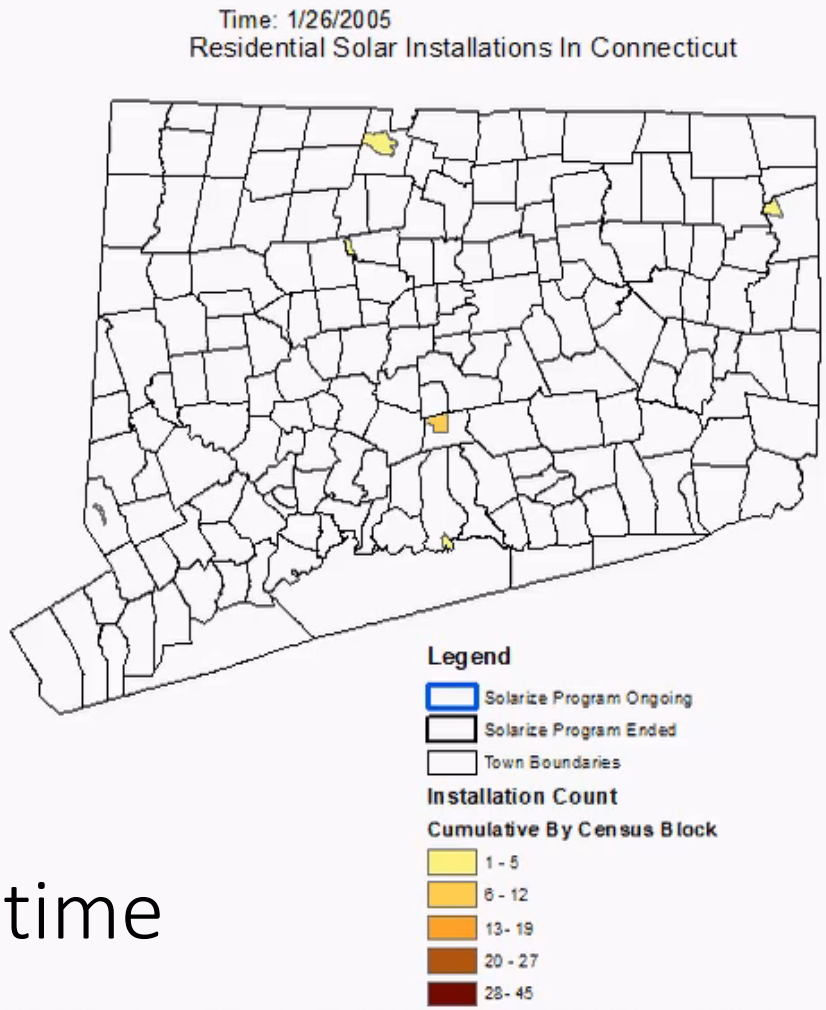


Rooftop Solar PV Potential



Source: Sydney Hanson
Yale Center for Business and the Environment





Solar installations over time

What has CT Green Bank done so far?

- **Presented to industry groups**
  - Greater Hartford Association of Realtors
  - Eastern CT Association of Realtors
  - New Haven Middlesex Association of Realtors
  - New Hampshire Association of Realtors Green Symposium
- **Partnered with Craig Foley to craft message**
- **Advised on creation of online solar course for realtors**
- **Created resources for realtors, lenders, and appraisers**
- **Supported CT and Regional efforts**

Thank You!

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