Motivating Energy Efficiency Improvements through Home Energy Labeling

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Connecticut Department of Energy and Environmental Protection

2018 CT Comprehensive Energy Strategy

Strategy #2: Advance market transformation of the energy efficiency industry

A. Integrate energy efficiency with real estate market forces

B. Develop a sustainable workforce to meet industry demand

C. Standardize efficiency with energy performance codes, standards, and certifications

D. Transition to cleaner thermal fuels and technologies

COMPREHENSIVE ENERGY STRATEGY

February 8, 2018

CT GENERAL STATUTES SECTION 16a-3d

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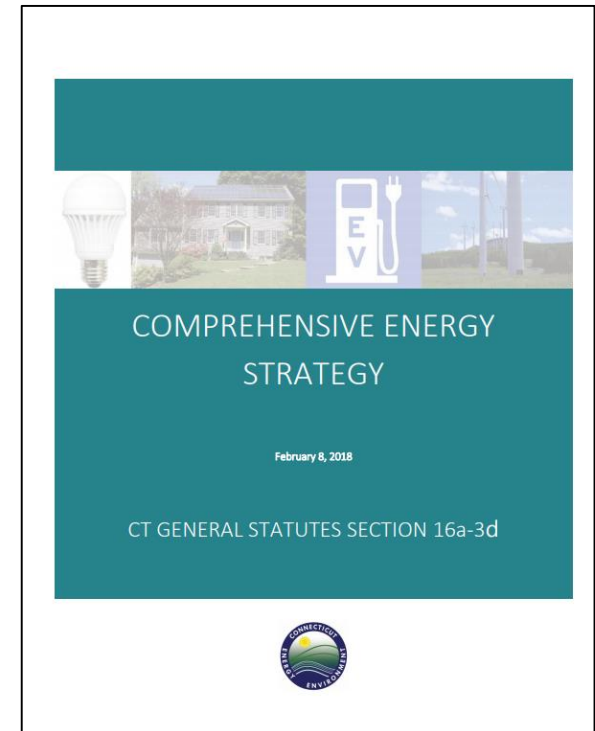
Home Energy Labeling in Connecticut

- Statutory goal of achieving market transformation through C&LM programs

- Connecticut was first statewide Home Energy Score implementer in April 2015

- Home Energy Score is a feature of all energy assessments in qualifying homes that opt-in

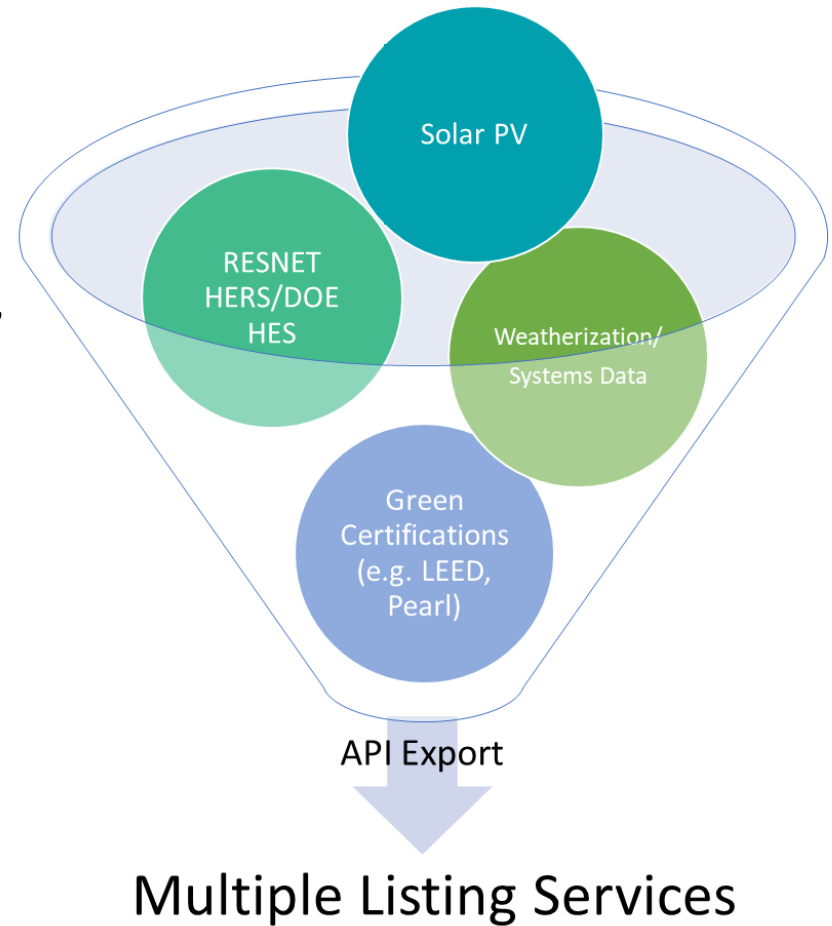- All lead technicians are required to be Assessors
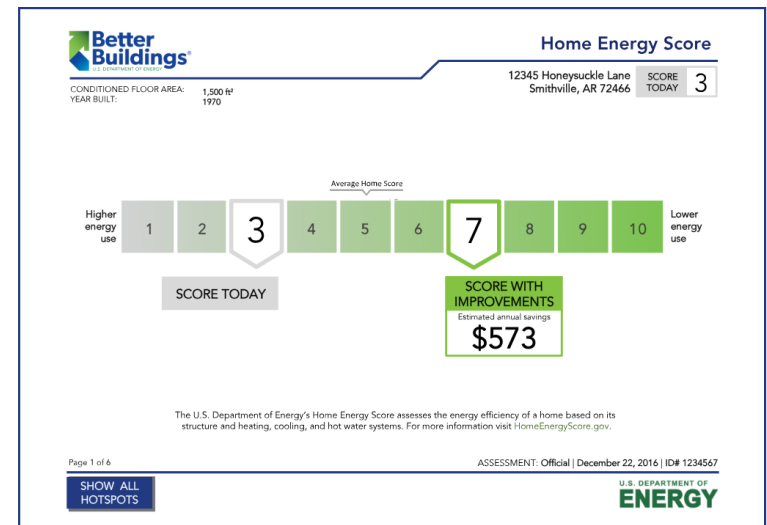
Creating a Database

- *Home Energy Labeling Information eXchange (HELIX)*
  - o Three-year project to develop the universal database capable of auto-populating real estate listings with home energy information in a standardized format
  - o Partnership of seven states (New England + New York) using U.S. DOE SEP Competitive Grant received by Vermont

HELIX Structure

- Expands on the Standard Energy Efficiency Database (SEED) Framework
  - Allows for residential certifications, solar energy consumption data, code compliance, and efficiency measures
- Flexible Policy Management Tool
  - Track/manage compliance
  - Export to local MLS
  - Create custom labels
  - Access for local real estate professionals
  - Trainings and technical assistance

Solar PV

RESNET HERS/DOE HES

Weatherization/ Systems Data

Green Certifications (e.g. LEED, Pearl)

API Export

Multiple Listing Services

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Labeling Benefits Owners, Buyers & Sellers

Home Owners

- Energy efficiency means lower, more stable energy bills
- Improved comfort & health
- Information can unlock access to financing and incentives

Homebuyers

- More information = smarter purchase (reduced uncertainty)
- Energy efficiency means lower, more stable energy bills
- Improved comfort & health
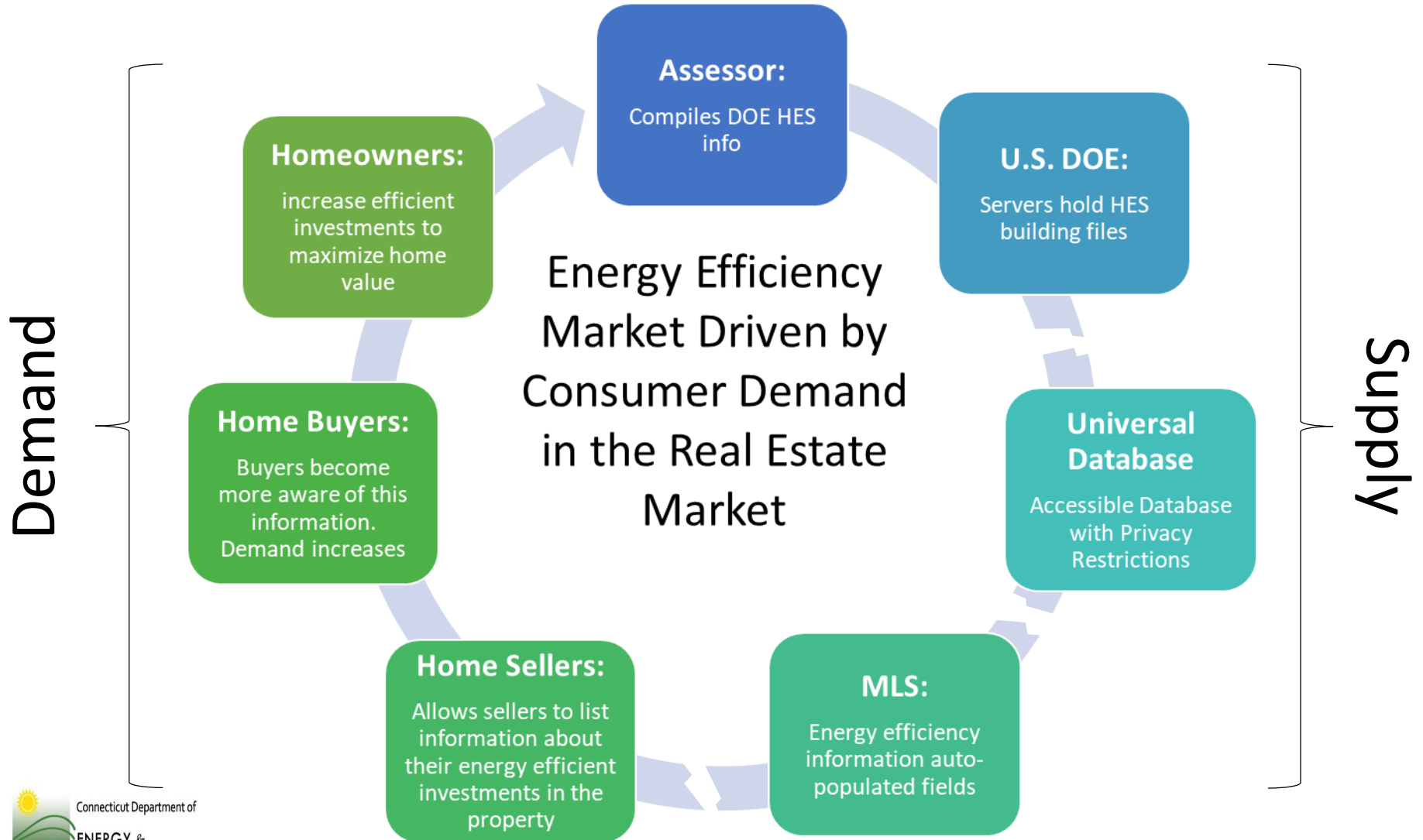- Information can unlock access to financing and incentives
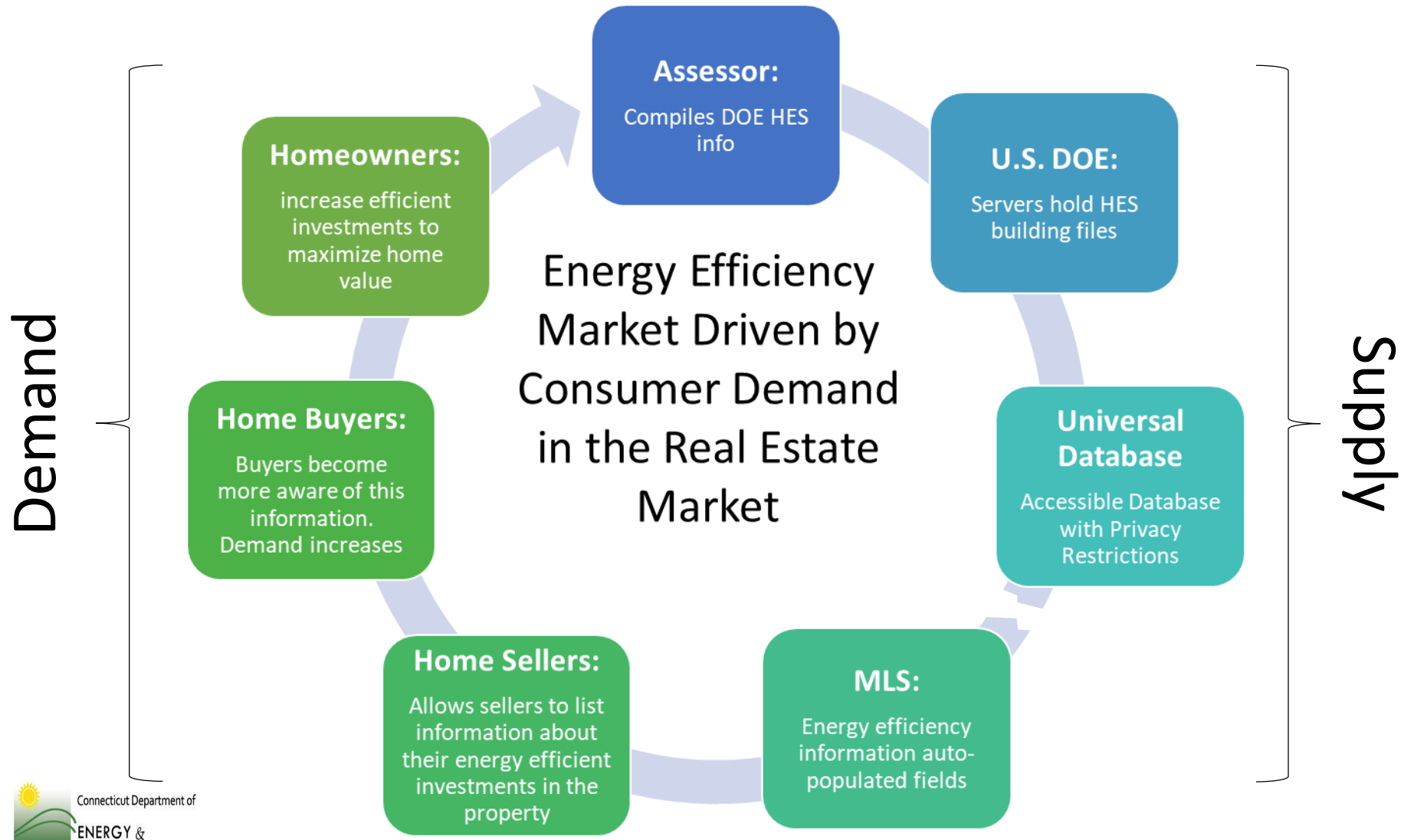
Home Sellers

- Sell for higher price and faster
- Get a return on investment
- Positive differentiation (advantage over homes that do not disclose)
- Lower ratings do not discourage purchase, but rather inform upgrades

Visit DOE's Website for reference to many of these studies.

Real Estate-Driven Market Transformation

Demand

Supply

Assessor:
Compiles DOE HES info

U.S. DOE:
Servers hold HES building files

Homeowners:
increase efficient investments to maximize home value

Energy Efficiency Market Driven by Consumer Demand in the Real Estate Market

Universal Database
Accessible Database with Privacy Restrictions

Home Buyers:
Buyers become more aware of this information. Demand increases

Home Sellers:
Allows sellers to list information about their energy efficient investments in the property

MLS:
Energy efficiency information auto-populated fields

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Who Needs to be at the Table?

Appraisers

Inspectors

Lenders

MLS's

Realtors

Utilities
UI   SCG   CNG
EVERSOURCE

Contractors
(HVAC, Energy
Auditors, Builders)

PROTECTION

Engaging Contractors

Leverage existing communication pathways.

- CT focused on utility Home Energy Solutions contractors to start

Conduct outreach to ensure their questions and concerns are addressed.

- Held roundtables and circulated surveys to understand contractor concerns.

Employ consistent messaging.

- Took the top FAQs and created messaging materials to share and train on.

Build and maintain technical knowledge.

- Engage with DOE, they are a resource to help build technical knowledge.

How can you express the benefit to contractors?

- DOE Home Energy Score creates a roadmap of deeper energy efficiency measures for customers which contractors can leverage as a sales tool.

Engaging Contractors- examples of concerns

"A lower score may end up being detrimental to a home,"

FALSE: a more informed consumer makes a better decision.

a) Studies have shown that homebuyers like having energy information, and high bills or a low score do not necessarily "kill" a sale

b) A low score does not necessarily mean that a home is poorly built.

– The score estimates a home's total energy use, not energy per sq. ft.

– A 4,000sq. Foot, beautiful home will likely be expected to use more energy each year than the average U.S. home

Engaging Contractors- examples of concerns

"It is difficulty to predict a score and explain to a customer why they got what they did,"

a. A home's unique feature are modeled to determine annual energy use

One-Story House

Two-Story House

- 2000 sq/ft floor plan
- 5440 sq/ft exposed surface (walls, ceiling, floor)

- 2000 sq/ft floor plan
- 4080 sq/ft exposed surface (walls, ceiling, floor)

Engaging Realtors

## Customize training to meet them where they are.

- Working with local realtor associations to engage on familiar platforms and provide CEU's

Use data and evidence.

- Demonstrate that the stock of data is growing, available, and be prepared to address concerns about labeling.

Engage them in the process.

- Most realtor associations and MLSs are member-based organizations. Education helps empower them to demand change.

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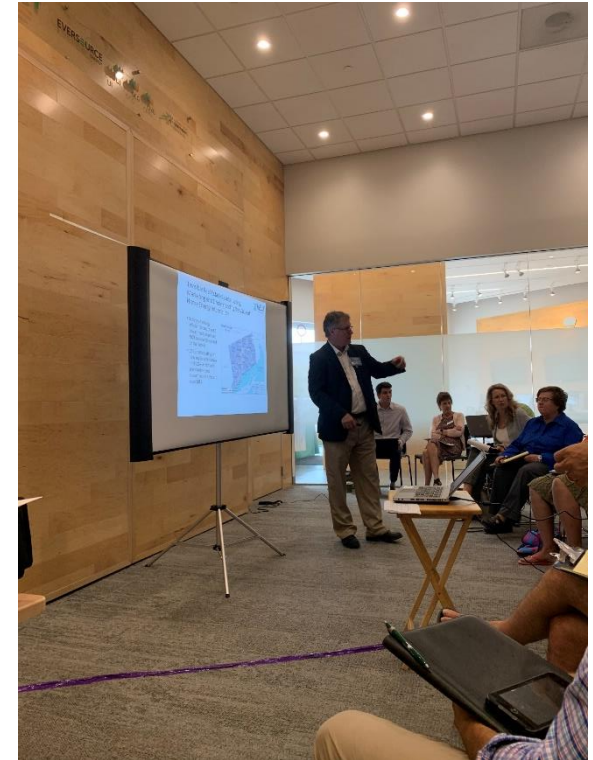
Craig Foley, CSO and REALTOR®, conducting a training on energy efficiency and solar PV for Connecticut realtors in September, 2019.

Engaging the Multiple Listing Services

Establish the necessary technology.

- HELIX allowed us to establish credibility and open discussions.

Recognize and adjust to different industry timelines.

- MLS board engagement can change.

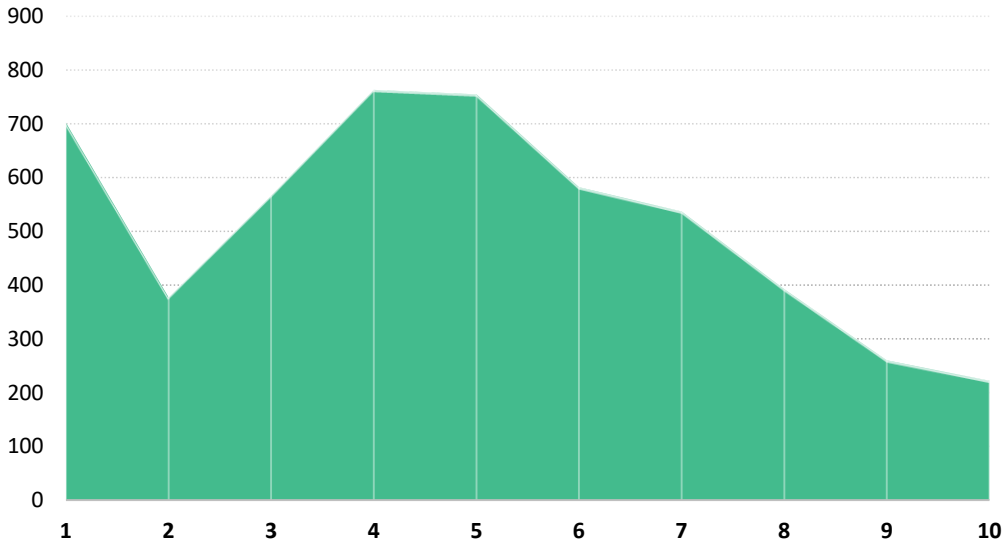**Leverage their membership base– the realtor community.**

- Educate the realtors to demand this information be available.
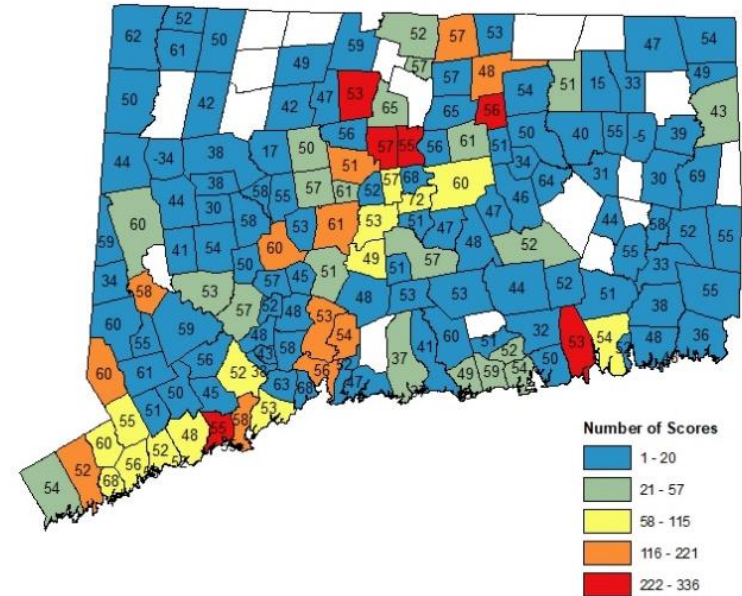
Build and maintain technical knowledge.

- Bring their IT staff to the table if possible.

Track Your Data

No. of Home Energy Scores since 2018

HERS Index Average Score by Town

- A useable scores since February, 2018 (40%)
- Average score ~5 (expected)

Score	Average Baseline Asset Energy (MBTU)	Average Year Built	Average Square Footage
1	181	1949	2,803
5	95	1965	2,011
10	39	1975	1,794

Additional Challenges

- Stream-lining re-scoring of updated homes
- Improving lender and appraiser education and exposure
- Increase contractor-motivated adoption by customers
- Sustainable funding for training