

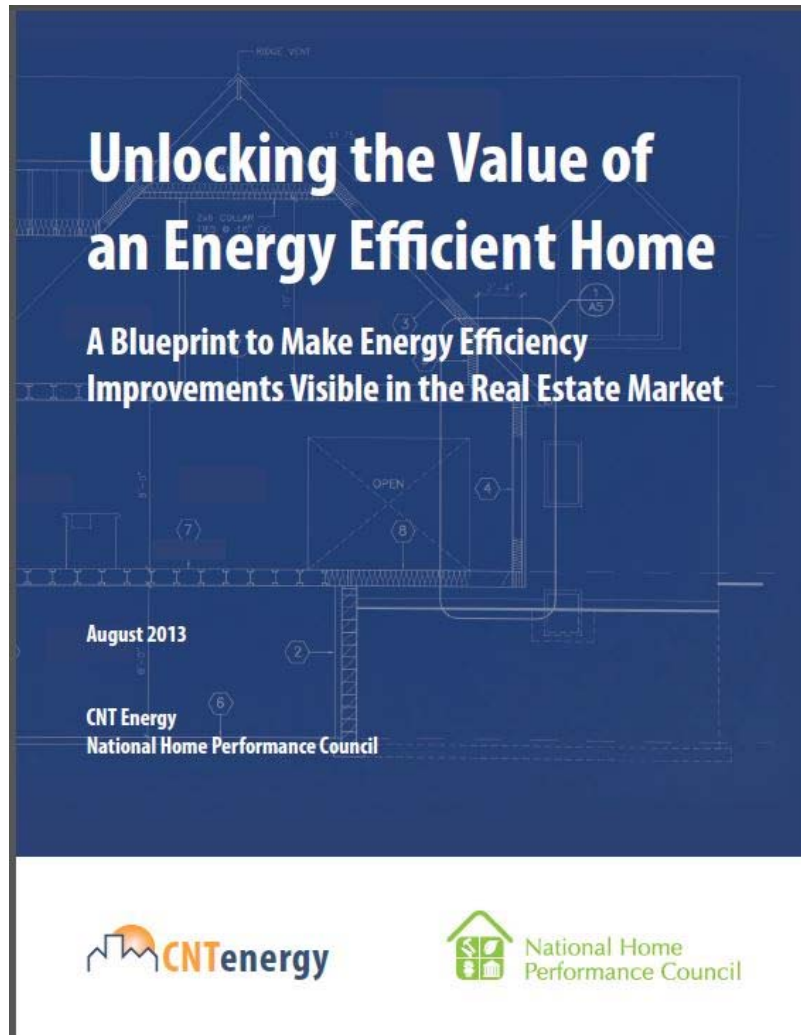
Valuing and Marketing High- Performance Homes in DC & Beyond



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Institute for Market Transformation



The Visible Value Blueprint



1. Document Upgrades
2. Disclose Inventories
3. Continuing Education
4. Green MLS Usage
5. Appraiser Designed Valuation Studies
6. IT Solutions: HPXML
7. Work with Lending Institutions



Step One: Document Upgrades

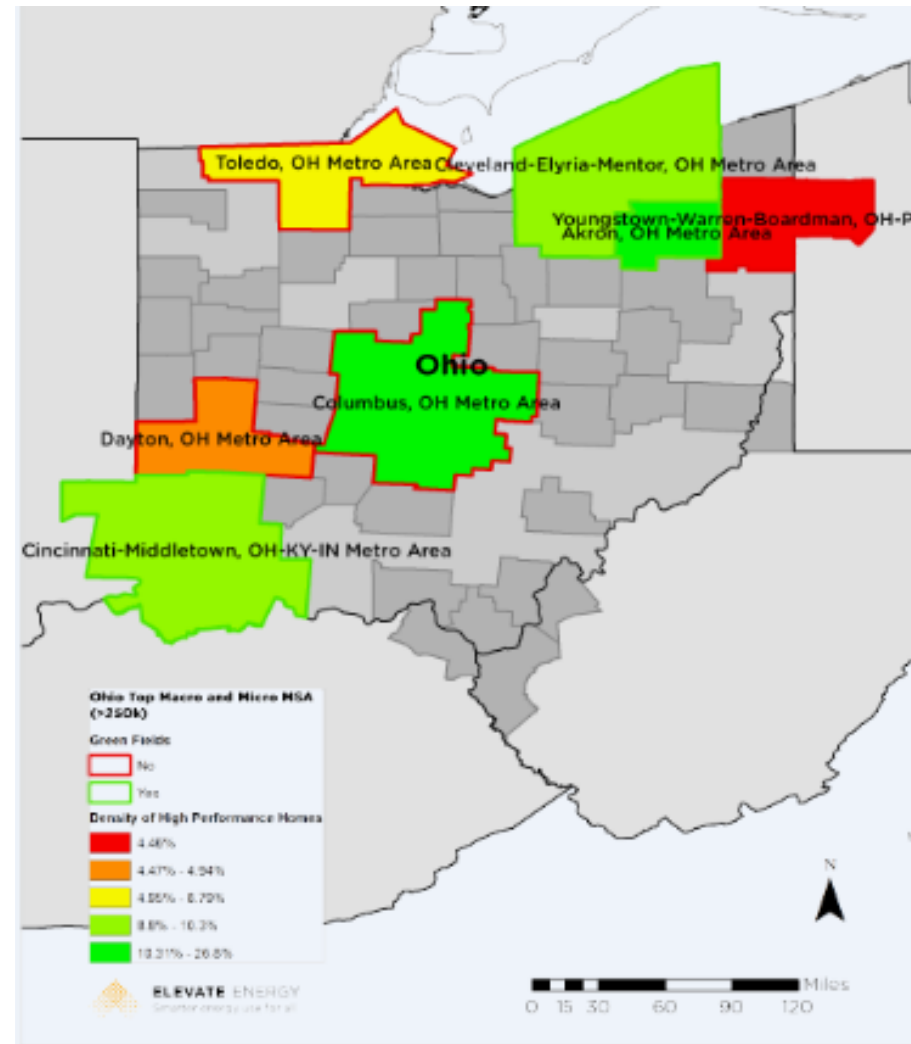
- Third-party verified information critical to the real estate process
- New home programs have led the way
- National programs/guidelines for existing homes are growing fast:
 - Home Performance with ENERGY STAR
 - Home Energy Score
 - BPI-2101: Standard Requirements for a Certificate of Completion for Residential Energy Upgrades





Step Two: Disclose the Inventory

- Maps to show density of high performance homes
- How many homes are eligible for Green MLS fields?
- Use geographical units that are meaningful to real estate
 - Metro areas (for MLS)
 - Counties (for Boards of Realtors)





Step Three: Appraiser Designed Valuation Studies

- Small sample size
- Hyper-local
- Data appraisers can use in their assessments
- Listing Agent engagement

AI Reports
Form 820,047

Client File #: _____ Appraiser File #: _____
Residential Green and Energy Efficient Addendum

Client: _____
Subject Property: _____
For: _____ State: _____ Zip: _____

Additional resources for all in the valuation of green properties and the completion of this form can be found at <http://www.aireports.com/valuation/green-energy-addendum.htm>

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 use(s) identified in the appraisal report and only for the intended use stated in this 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 prudent inspection of and inquiries about the subject property's green and energy efficient features. **Exclusionary exception:** Data provided herein is assumed to be accurate and should be in error should alter the appraiser's opinion or conclusions.
- is not made as a representation or as a warranty as to the efficiency, quality, function, operability, reliability or use 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 classical building design concerns of economy, utility, durability, and comfort. 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 air quality, and (6) maintenance and operation. A Green Building will be energy efficient but an energy efficient building is not synonymous with Green Building.

Green Features

The following items are considered within the appraised value of the subject property:

Certification	Year Certified	Certifying Organization	Verification Reviewed on site	Certification attached to this report
		<input type="checkbox"/> NYS Innovation Research Labs (NY-700)	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> USGBC (USGBC) <input type="checkbox"/> Other	<input type="checkbox"/>	<input type="checkbox"/>
Rating	Score:	<input type="checkbox"/> LEED Certified <input type="checkbox"/> LEED Silver <input type="checkbox"/> LEED Gold <input type="checkbox"/> LEED Platinum		
		<input type="checkbox"/> ICC-708 National Green Building Standard Certified <input type="checkbox"/> Bronze <input type="checkbox"/> Silver <input type="checkbox"/> Gold <input type="checkbox"/> Emerald		
		Green Certifying Organization (URL, website)		
Additional	Detail any additions or changes made to the structure since it was certified.			



Step Four: Real Estate and Appraiser CE Classes

- CE credits are key to educating Realtors and appraisers
- Regulated by each state's licensing body
- Must have a focus on consumer protection
- Sample eligible content:
 - Building Science
 - Building codes
 - Inventories/Densities
 - Rebates
 - Green Fields



Agenda

- Framing the Issue
- Activities in the District of Columbia
- Opportunities for Other Cities

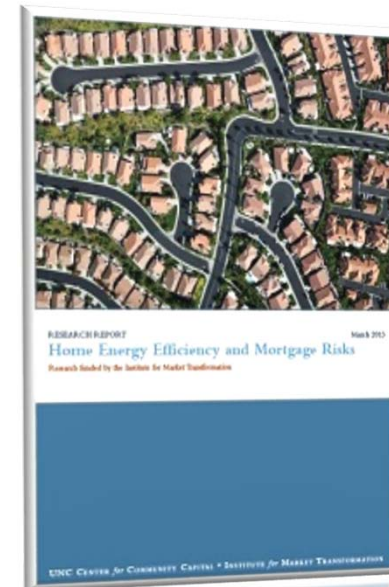
Home Energy Efficiency and Mortgage Risks

Question: Is residential energy efficiency associated with lower mortgage default & prepayment risk?

Sample: 71,000 loans in 38 states

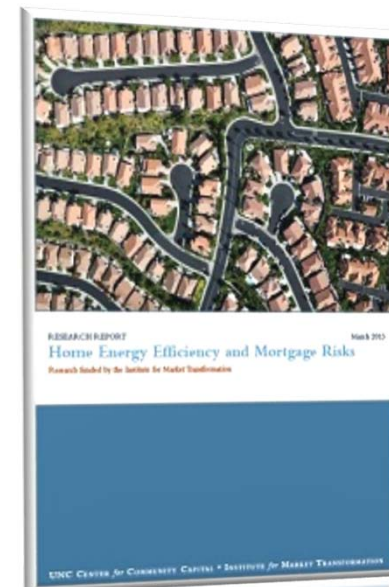
- 29,994 ENERGY STAR homes
- 46,118 Control Group homes

Controls for: home age & size, borrower credit score, LTV ratio, loan type, median neighborhood income, etc.



Findings

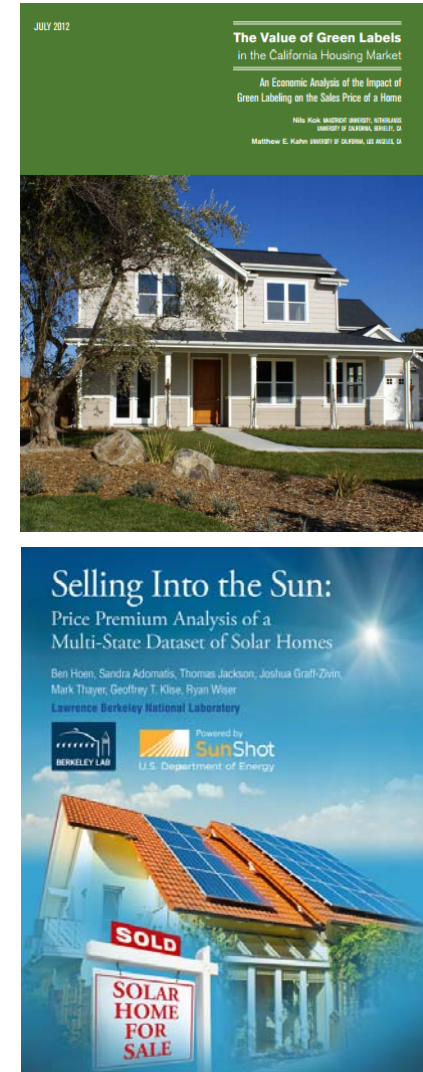
- **Default risks on average 32% lower for ENERGY STAR homes**, controlling for other loan determinants
- More efficient home → lower default risk
- Mortgage on ENERGY STAR residence **27% less likely** to be prepaid
- Results statistically significant with 99.9% confidence level



Value Premiums for Green Homes

Several recent studies:

- 1) The Value of Green Labels in the California Housing Market (2012)
- 2) Selling into the Sun: Price Premium Analysis of a Multi-State Dataset of Solar Homes (2015)
- 3) An Early Look at Energy Efficiency and Contributory Value (2015)



The SAVE Act

Why We Need It

- Spark job creation, innovation in housing & manufacturing
- Enable better mortgage underwriting
- Reduce utility bills for American homeowners
- Provide affordable financing for home energy improvements

Average U.S. Homeowner Costs:
2012



Sources: EIA Annual Energy Outlook 2014; 2012 American Community Survey; National Association of Insurance Commissioners, 2012 Annual Homeowners Insurance Report

The SAVE Act: How It Works

Would provide guidance to HUD to issue updated underwriting and appraisal guidelines for borrowers who submit a qualified home energy report.

Debt-to-
Income

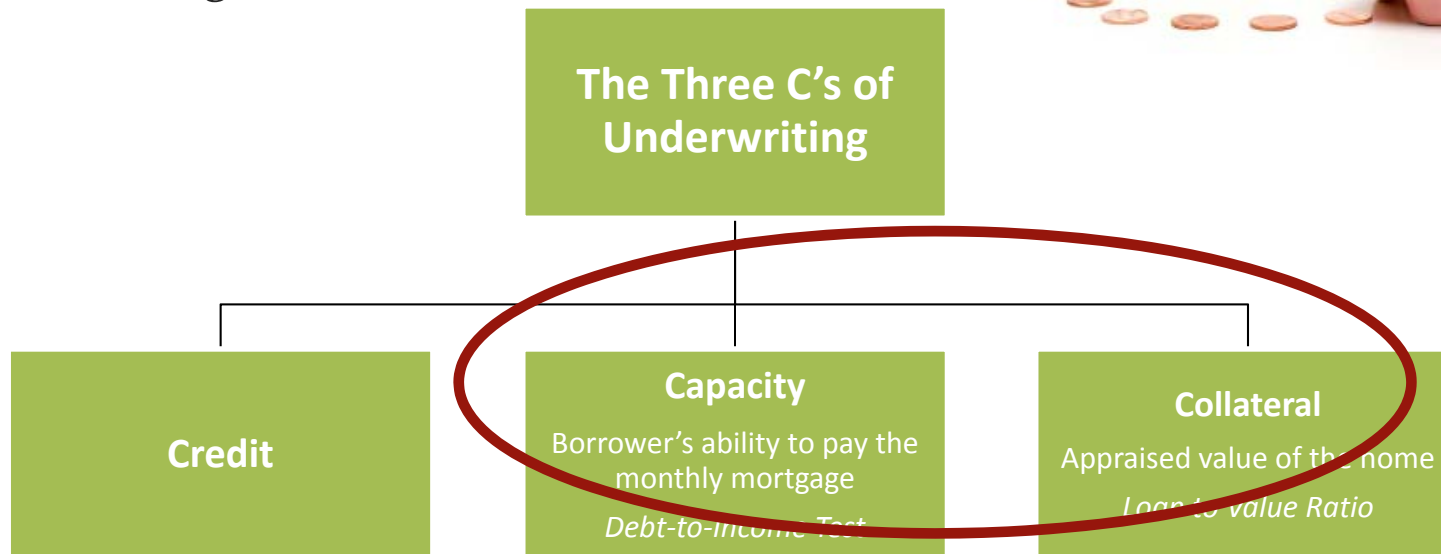
Loan-to-Value
Adjustment

Consumer
Information

Incorporating Energy Efficiency into Mortgage Underwriting

Mortgage Underwriting:

- Borrower capacity is adjusted for energy costs.
- Value of the home reflects the energy cost savings.



Energy “blind spot”

Incorporating Energy Efficiency into Mortgage Underwriting

Collateral:

- Residential appraisers rarely account for energy efficiency:
 - Lack of awareness, expertise, incentives
 - Appraisers rely on “comps”
 - Little agreement on how to value energy efficiency.
- New approach would give underwriters the option of adding the **NPV of the energy savings** to the appraised value when calculating the Loan-to-Value ratio:

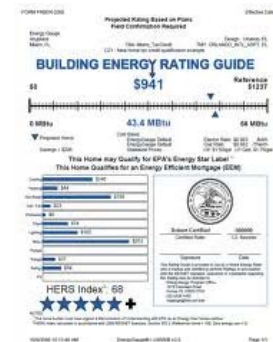
$$\text{e.g. } 80\% \geq \frac{\text{Loan Amount}}{\text{Appraised Value} + \text{NPV of energy savings}}$$



Appraisal Report:
Requires a *Certified Appraiser*
where homeowner submits
an energy report



HERS
or other qualified
energy report
(optional)



Green Home Sales Transactions: Best Practices



Graphic courtesy of NAR www.greenthemls.org

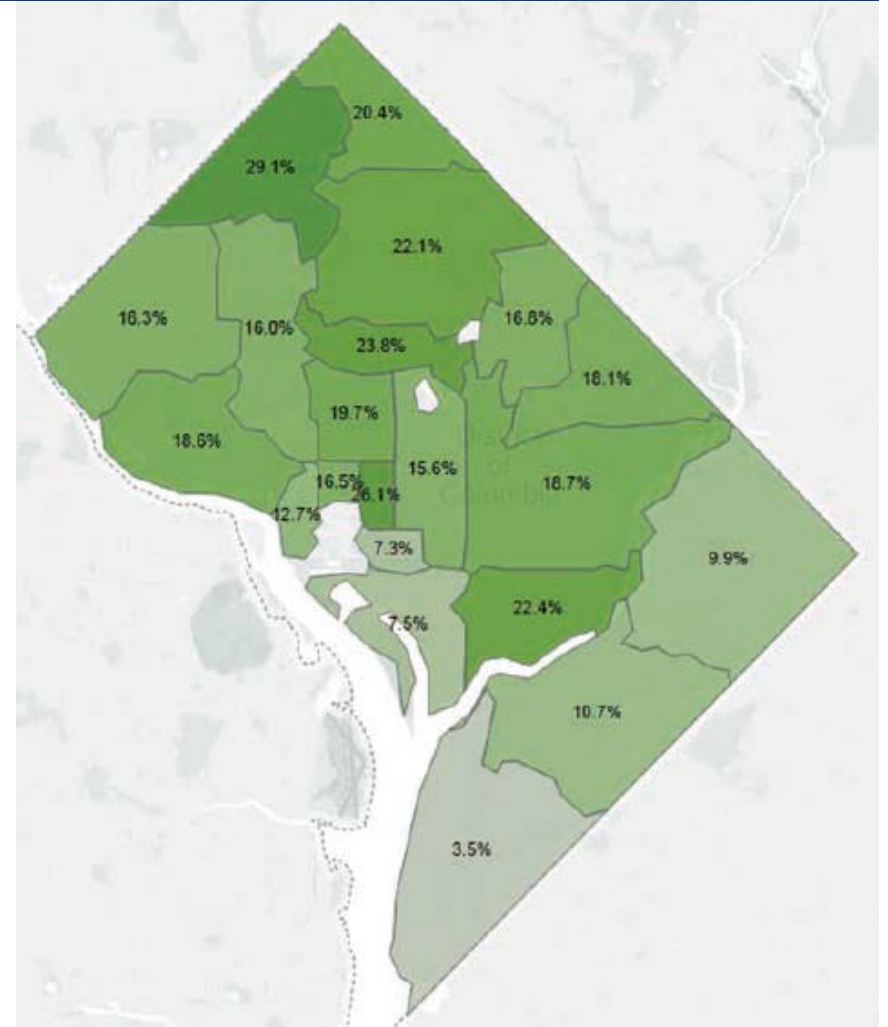
So What's Happening in the District?

- Grant from District Department of the Environment to promote green homes and transparency in real estate transactions
- Partnership among IMT, Elevate Energy, and RealEstate Business Intelligence
- 1st public-private partnership of its kind



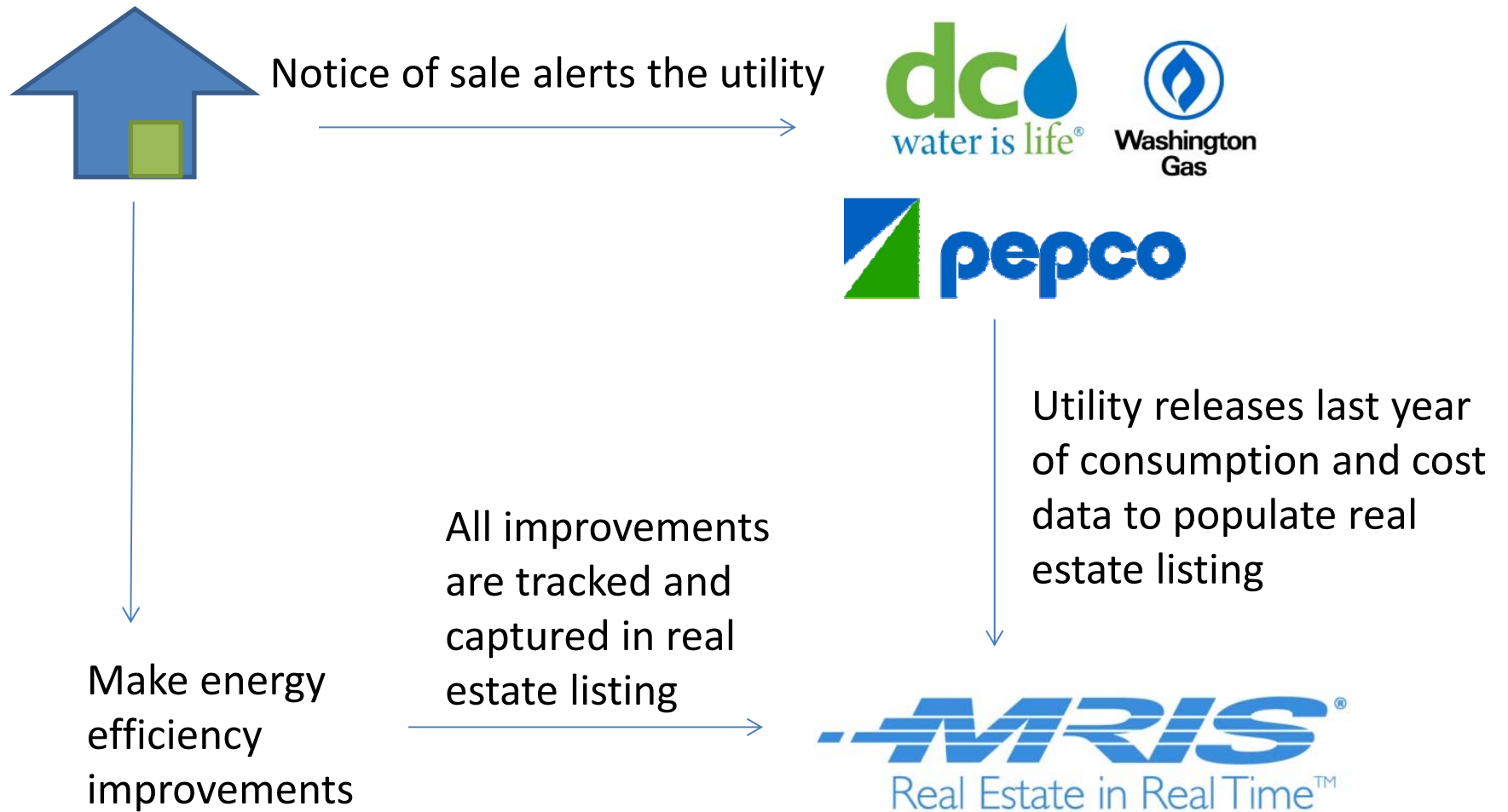
Key Findings

- High-performance homes exist in all District zip codes
- In 2013, HPHs accounted for 18% of total residential home sales in the District
- Homes that used “green” fields in MRIS performed better on key market indicators, such as sales price



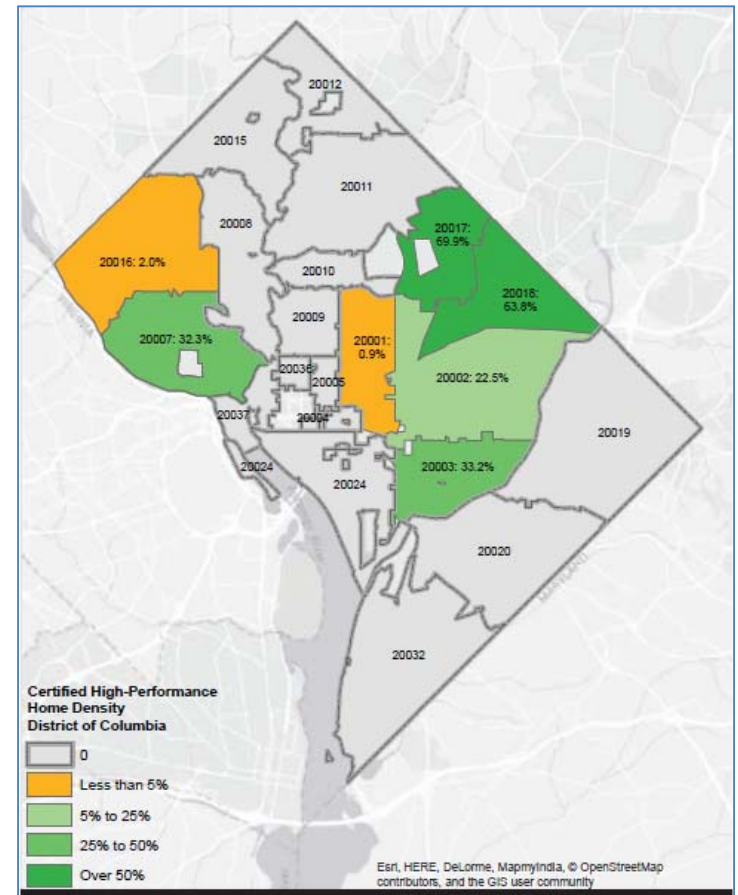
Graphic courtesy of RBI: www.rbintel.com/

Working with Local Utilities



What Your City Can Do

- Engage local MLS, utilities, appraisers, and Realtors
- Conduct HPH inventory
- Educate homeowners and professionals on benefits of green homes
- Great resource: Elevate Energy's Visible Value Blueprint
(<http://www.elevateenergy.org/value-high-performance-homes-campaign/blueprint/>)



Summary