



Energy-Saving

HOMES, BUILDINGS,
& MANUFACTURING

U.S. DEPARTMENT OF
ENERGY | Energy Efficiency &
Renewable Energy

Using Certificates to Document the Value of Home Performance

ACI National Conference

May 1, 2014

Presenters

- **Caroline Hazard**, SRA International
- **Cortney Krauss**, SRA International
- **Will Baker**, Midwest Energy Efficiency Alliance
- **Terry Freeman**, Columbia Water & Light

Session Objectives

By attending this session, participants will:

1. Learn about the HPwES research findings on recognition and labeling approaches.
2. Identify lessons learned in designing effective implementation of certificates of completion to meet state goals, including valuation in the multiple listing services.
3. Discuss methods to document home performance investments to better engage market players and enhance the value of energy efficiency measures, particularly at point of sale.

Overview of the Research on Certificates by Home Performance with ENERGY STAR

Purpose

Understand the value of using the Home Performance with ENERGY STAR mark in documenting a project

- Lead generation
- Recognition
- Valuation in real estate transactions

What

- December 2013 – reached out to Sponsors to gather information on how they use Certificates of Completion; 21 responded
- Conducted follow on webinars to clarify and discuss responses
 - Contractor driven
 - Used to generate leads
 - Use of a score or rating
 - Invoicing or documentation for rebate and incentive processing

Home Performance with ENERGY STAR Research Objectives

- **What value do certificates bring to the home performance transaction process?**
- **Is there a need and/or place in the industry for a Home Performance with ENERGY STAR label?**
- Identify recognition with greatest potential to support scalability
- What types of certificates are being used by HPwES Sponsors?
- How are certificates being used?
- What are homeowner and contractor reactions to certificates?
- Are certificates solely being used to document energy improvements?
- How does a certificate marry with existing ratings or scores?

You say tomato, I say tomahto

Variety of terms used in industry

- **Certificate:** Documents improvements, as well as the organizations and companies involved in the home performance project offered by Home Performance with ENERGY STAR Sponsor; can offer homeowner proof that energy improvements have been made to their home, which may contribute to improving house's future re-sale value¹
- **Label (binary):** Documents home meets a minimum threshold (i.e. measures completed and/or energy savings)
- **Energy score/energy rating:** Specific value for the energy metric(s) of choice²
- **Residential energy labeling/residential energy rating/residential energy scoring:** Process of gathering information on a home's energy features, analyzing a home's level of energy efficiency, and providing specific, quantifiable energy metrics from that analysis to a person, usually a homeowner or potential homebuyer²

¹Home Performance with ENERGY STAR Sponsor Guide and Reference Manual v1.5

²Residential Energy Labeling: Strategies for Scalability, NASEO

Who are we talking about? 21 total Sponsors



BPI-2101-S-2013: Standard Requirements for a Certificate of Completion for Residential Energy Efficiency Upgrades

Certificate of Efficiency Improvements

Set of improvements installed designed to improve the energy efficiency of the home, whether as a home energy upgrade or as single measures

Certificate of Performance

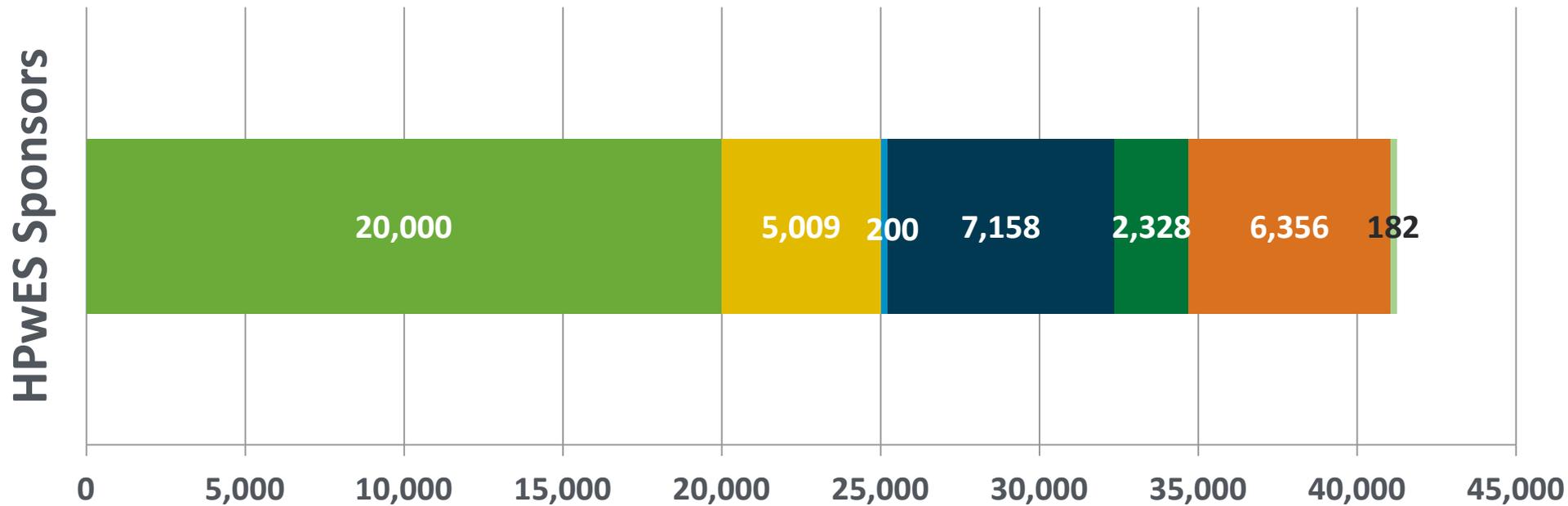
Quantitative information about home's energy performance and details on **set of improvements**

- Energy performance
- Specific third-party score, rating or label
- Annual energy consumption

Certificate must be issued by a qualified Sponsor:

- Residential energy efficiency program sponsored by government agency, weatherization agency, utility, or non-profit organization
- Organization designated by previously-listed entities to administer residential energy efficiency program on their behalf
- Organization implementing nationally recognized third-party QA program

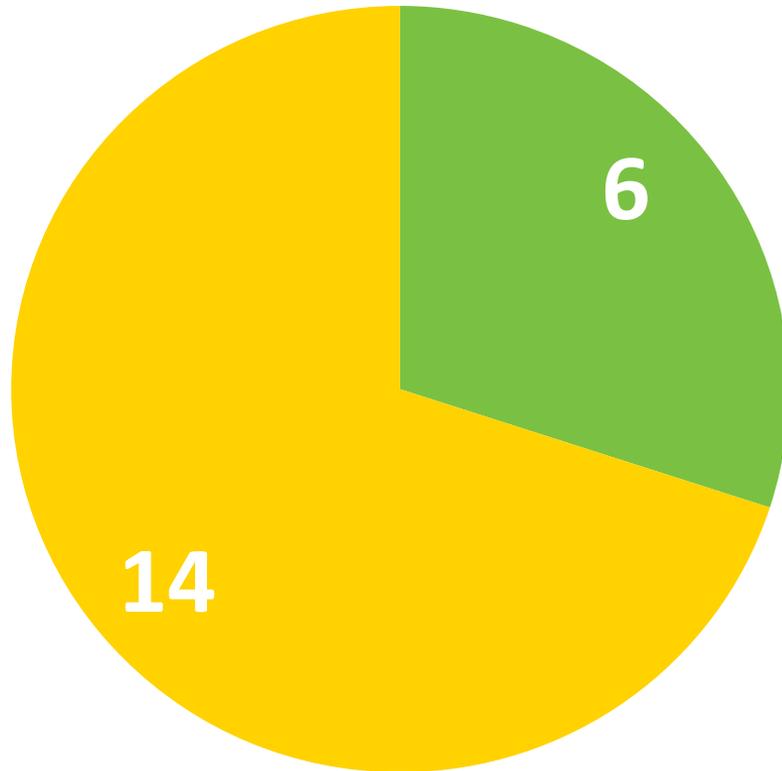
More than 40,500 Certificates Issued by Sponsors



■ 2006 (N= 2)
 ■ 2007 (N= 1)
 ■ 2008 (N= 1)
 ■ 2010 (N= 3)
 ■ 2011 (N= 3)
 ■ 2012 (N= 6)
 ■ 2013 (N= 5)

N = 21

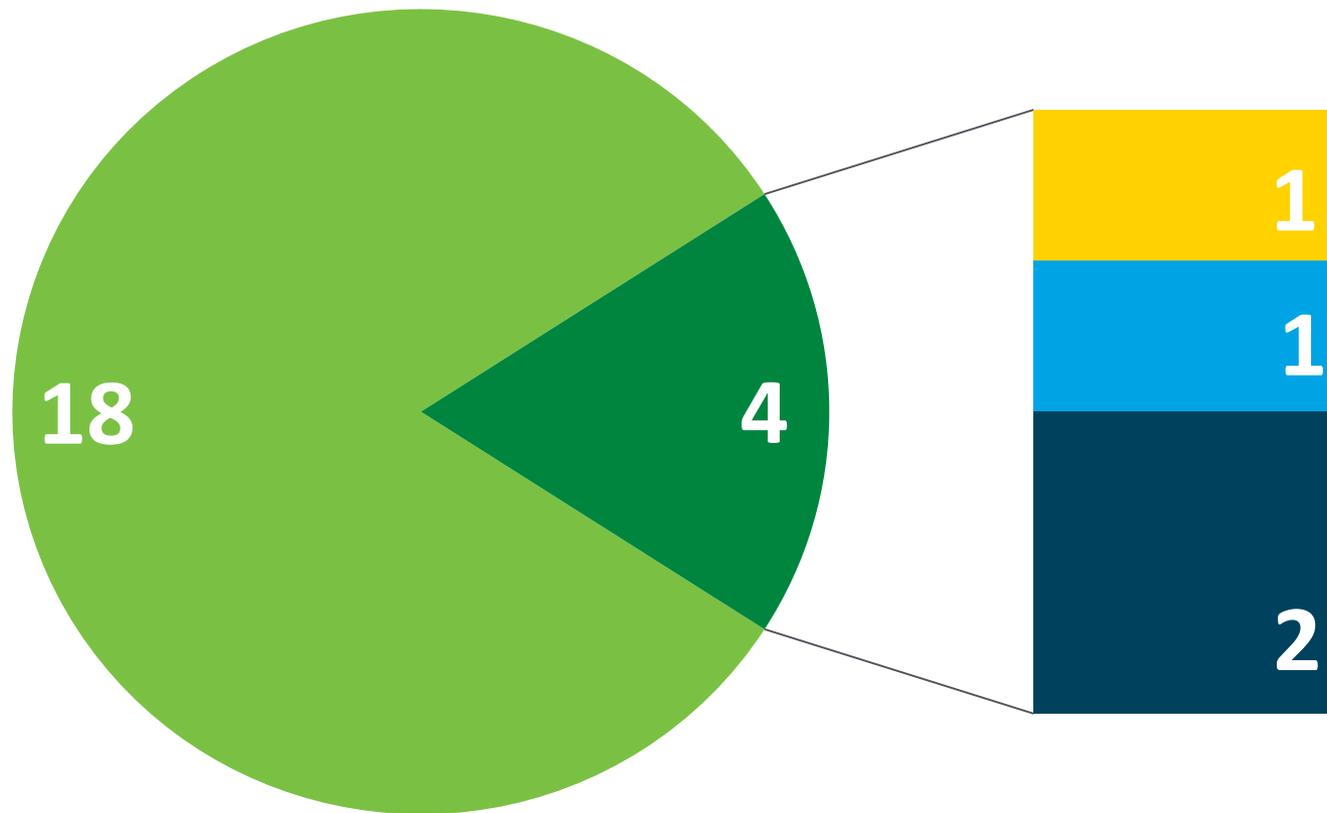
Certificates of Efficiency Improvements vs. Certificates of Performance



- Efficiency Improvements
- Performance

N = 20

Are Homeowners Charged for Certificates?



■ No ■ Yes, Market driven ■ Yes, \$150 ■ Yes, \$55

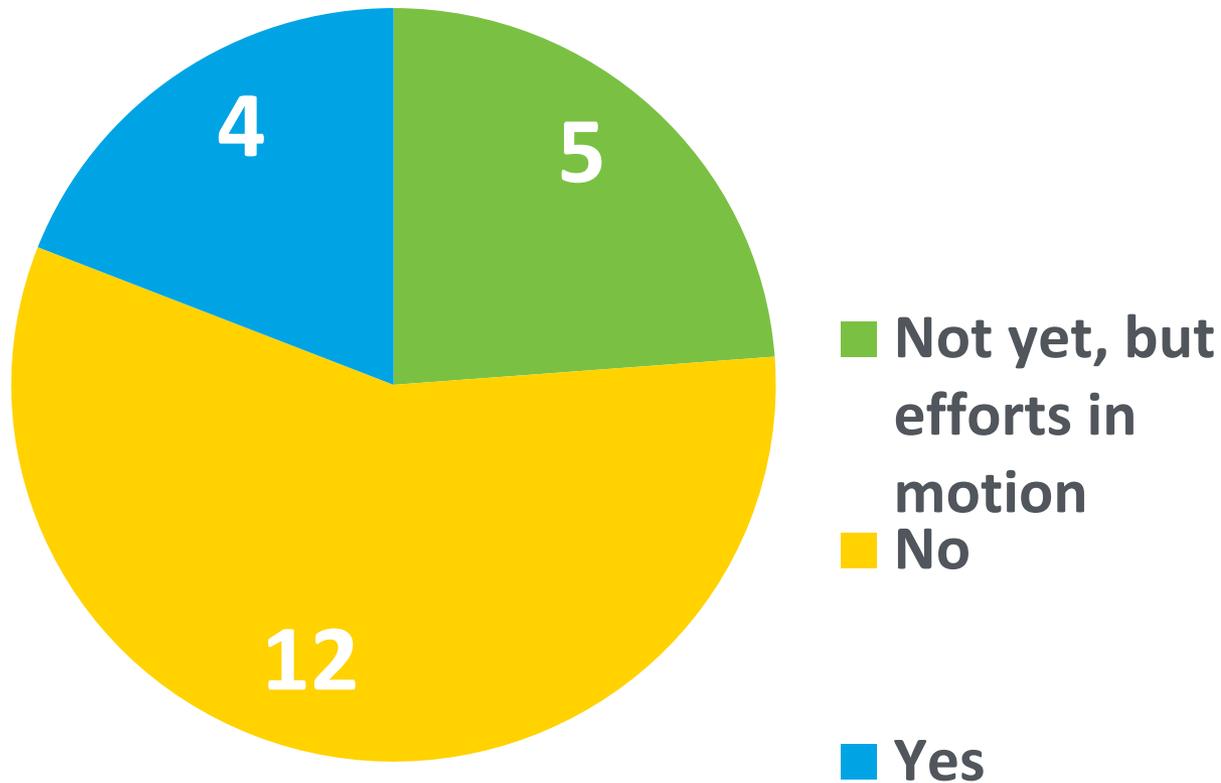
N = 21

What organizations find certificates valuable?



N = 18

Certificate Presence on Multiple Listing Services

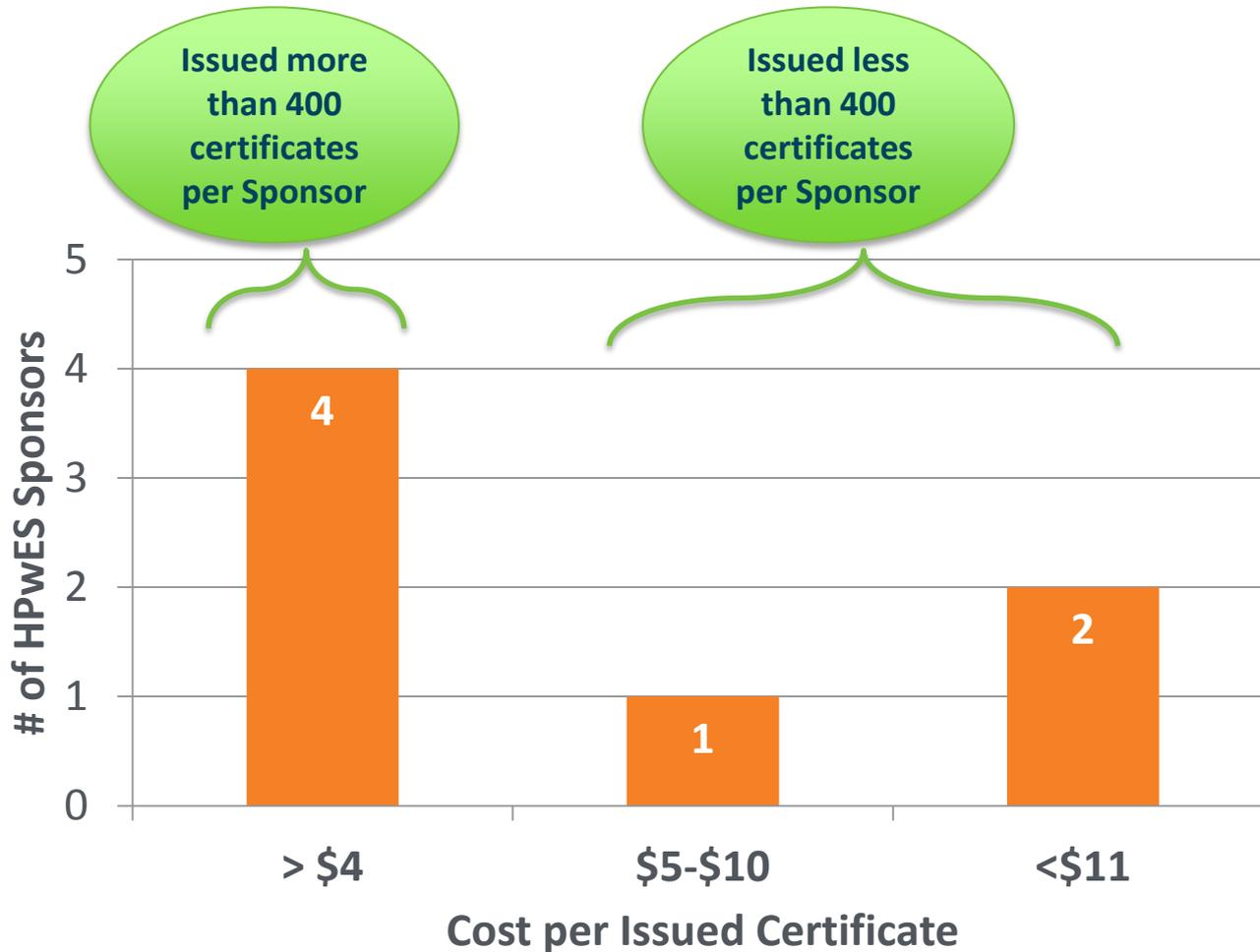


Fields included on

- **Regional Multiple Listing Service (NW)**
- **Midwest Real Estate Data**
- **Charlottesville Area Association of Realtors (VA)**
- **Richmond Virginia MLS**

N = 21

Costs Incurred Relative to Number of Certificates Issued



- Costs incurred reported as initial software development, printing, postage, and staff time
- 60% of Sponsors incur less than \$4 per issued certificate.
- Economy of scale seems to be a major factor. All Sponsors reporting more than \$5 per certificated had issued less than 400 certificates to date

N = 7

3rd Party Ratings or Labels Used by Sponsors

Home Energy Score

Score	Home Facts	Recommendations
Address: 12345 Honeyuckle Lane Smithville, AR 72466	Home size: 1,800 square feet Year built: 1970 Air conditioned: Yes	
Your home's current score 3	Score with improvements 7 Estimated annual savings \$411	

U.S. DEPARTMENT OF ENERGY | homeenergyscore.gov | Assessment type: Official | Assessment date: Feb 03, 2014 | Score ID: 42944 | Qualified assessor #: 101019 | Home Energy Score Version: v2014.4566

Gold Certificate of Completion

Home address:
1234 Sample Street
Sample, IL 60000

Contractor:
Name of Contractor

Program Provider:
Name of Program Provider

Work Completed On:
Date Completed

This home has achieved a superior level of energy reduction after the following home energy upgrades:

- Air sealing performed reducing total air leakage rate
- R-15 insulation installed in conditioned basement band joist wall cavity
- Existing bath fan vented to exterior

*Certificate issued 03/03/14 by the Midwest Energy Efficiency Alliance (MEEA) on behalf of the Illinois Energy Office based solely on the reporting by an estimator of contractor. A minimum of 10% is required to receive a Certificate of Completion. See review.

Agnes Mrozowski
Assistant Deputy Director, Illinois Energy Office

Silver Certificate of Completion

This home has achieved an estimated total reduction of at least 15%* after wing home energy upgrades:

ing performed reducing total air leakage rate
insulation improved to R-49

Columbia Water & Light's EFFICIENCY RATING

83%

Percentage of your home's energy efficiency potential with 100% being the most efficient.

ESTIMATED ANNUAL ENERGY COSTS \$700 - \$900

ADDRESS _____

HOME SIZE (square foot) _____ **YEAR BUILT** _____

ASSESSMENT DATE _____

Columbia Water & Light's Efficiency Rating indicates the percentage of home's maximum energy efficiency potential as modeled by the U.S. Department of Energy's Home Energy Score. The maximum energy efficiency is based on recommendations that provide a 10-year payback or less. Annual energy cost is based on equipment efficiency, size of home and number of bedrooms. The actual costs may vary due to weather shading, occupant behavior, number of occupants and home maintenance.

Home Energy Score

U.S. DEPARTMENT OF ENERGY | homeenergyscore.gov

Address: 1234 Honeyuckle Lane, Smithville, AR 72466

Assessment date: 04/10/2014

Score ID: 181029

Qualified assessor #: 101019

Uses More Energy | 5 | 7 | Uses Less Energy

ColumbiaPowerPartners.com
 (573) 874-7325

Gold Certificate of Completion

Home address:
1234 Sample Street
Sample, IL 60000

Contractor:
Name of Contractor

Program Provider:
Name of Program Provider

Work Completed On:
Date Completed

This home has achieved a superior level of energy reduction after the following home energy upgrades:

- Air sealing performed reducing total air leakage rate
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Agnes Mrozowski
Assistant Deputy Director, Illinois Energy Office

SAMPLE NOT AN ACTUAL HOME

Energy Performance Score (EPS)

Energy Performance Score is a tool to assess a home's energy consumption, cost and carbon footprint.

Estimated Monthly Energy Costs

\$120*

Estimated average annual energy costs: **\$1,440***

Location
12345 Southeast Very Long Example Street
Portland, OR 97215

YEAR BUILT: 1994
SQ. FOOTAGE: 2,112
EPS ISSUE DATE: 0-17-11

Utilities:
Gas: NW Natural
Electric: Portland General Electric

Estimated average energy costs per month: Electric \$95, Natural gas \$30

ENERGY CONSUMPTION: Measured in millions of Btu per year (MMBtu). One million Btu = 293 cubic ft of natural gas.

Energy Score

92

Estimated average energy usage: Electric (90kWh); Natural gas (900kWh)

CARBON FOOTPRINT: Measured in tons of carbon dioxide per year (tons/yr). One ton is 2,000 lbs. electricity use on typical 2100-watt oven.

Estimated average carbon footprint: Electric (tons/yr): 3.1, Natural gas (tons/yr): 1.8

OFFICIAL

EnergyTrust of Oregon

Does one size fit all?



Dominion East Ohio

Home Performance with ENERGY STAR® Summary of Energy Improvements Performed

Locally sponsored by



Home Address:

Home Performance Improvements:

-
-
-
-

Work Performed by:

Work Verified by:

GoodCents

Work Completed on:



HOME PERFORMANCE WITH
ENERGY STAR

Home Performance with ENERGY STAR® offers a comprehensive, whole-house approach to home improvement that results in better energy efficiency, greater comfort, and lower energy bills.

ENERGY STAR is a voluntary partnership sponsored by the U.S. EPA and U.S. DOE to protect the environment through superior energy efficiency.

This home is certified by
EnergyFit Nevada



The home at **7508 Vander St. Reno, NV 89509** has met the standards for an
EnergyFit Home by achieving modeled energy savings of **24.6 %**

Key energy saving upgrades performed on this home include:

Attic Insulation

Floor Insulation

Air Sealing

EFN Certificate of Completion Template.jpg.jpg

This home was approved on: **3/31/2013**

EnergyFit Homes are designed to use at least **20%** less energy,
creating greater comfort, health and value.

Deneé M. Evans

Deneé Evans Executive Director, EnergyFit Nevada

Pro Energy Consultants

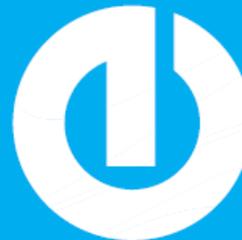
EnergyFit Nevada Approved Partner Contractor



Developed in accordance with Home Performance with ENERGY STAR whole home standards which offers a comprehensive approach to improving energy efficiency, comfort, health, safety and durability of homes. This approach helps homeowners optimize energy efficiency by looking at the house as an energy system and takes into account homeowner behavior, local climate and more.

Greater Cincinnati Energy Alliance

CERTIFICATE OF COMPLETION



Greater Cincinnati
Energy Alliance

**1716 Monticello Drive
Fort Wright, KY 41011**

COMPLETED ON: APRIL 6, 2012
COMPLETED BY: ARLINGHAUS HEATING AND AIR CONDITIONING

This home has successfully completed the following energy efficiency conservation measures that have been approved and verified by the Greater Cincinnati Energy Alliance:

Air Sealing: CFM In 2450; CFM Out 1920
Cooling System Equipment Improvement
Duct Sealing
Other Improvements

Heating System Equipment Improvement
Attic Insulation
Rim Joist Insulation




Andy Holzhauser, CEO
Greater Cincinnati Energy Alliance

PSEG Long Island

New York Home Performance with ENERGY STAR Post-Installation Health and Safety Test Results

Prepared for: (Customer name and address)

By: (Contractor Name and Address)

Post-Installation Test Date Outside Temperature F

MVG: CFM₅₀ Building Leakage: CFM₅₀ Fan Ring: Open A B C

Inside Temp. F House Pressure: Pascals Fan Pressure: Pascals

CO Ambient (max.) In Living Space: PPM // CO Ambient (max.) In CAZ (during test): PPM

CAZ Test Venting Condition. Select the row that best describes the venting condition in the home and fill in the CAZ Worst Case Depressurization test result in that row..	BPI Limit (Pa)	CAZ Worst Case (Pa)
Orphan Natural Draft Water Heater (including outside chimneys)	-2	
Natural Draft Boiler or Furnace Commonly Vented with Water Heater	-3	
Natural Draft Boiler or Furnace w/ Vent Damper Commonly Vented with Water Heater; Induced Draft Boiler or Furnace Commonly Vented with Water Heater; Individual Natural Draft Boiler or Furnace	-5	
Power Vented or Induced Draft Boiler or Furnace Alone	-15	
Exhaust to Chimney-Top Draft Inducer; High Static Pressure Flame Retention Head Oil Burner; Direct Vented Appliances; or Sealed Combustion Appliances	-50	

Appliance Type	Draft (Pascals)	Spillage (Worst Case)	Spillage (Natural)	CO (Worst Case)	CO (Natural)
Heating System 1	<input type="checkbox"/> Pa.			PPM	PPM
Heating System 2	<input type="checkbox"/> Pa.			PPM	PPM
Water Heater 1	<input type="checkbox"/> Pa.			PPM	PPM
Water Heater 2	<input type="checkbox"/> Pa.			PPM	PPM
Oven	<input type="checkbox"/> Electric	<input type="checkbox"/> Gas w/ no vent	<input type="checkbox"/> Gas w/vent	If Gas: <input type="text"/> PPM	
Clothes dryer vented:	<input type="checkbox"/> properly <input type="checkbox"/> improperly			CO Detector: <input type="checkbox"/> No <input type="checkbox"/> Yes	
Bath and/or Kitchen Fan vented:	<input type="checkbox"/> properly <input type="checkbox"/> improperly			Gas Leaks: <input type="checkbox"/> No <input type="checkbox"/> Yes	

Home Performance with ENERGY STAR Certificate of Completion Signature Page – Contractor Copy

mer: Please read the following statements before signing. By signing this document, you hat all work has been completed pursuant to your contract, and (if applicable) you are a d on the promissory note. If any part of the work was not completed, please indicate below ry questions or concerns about any aspect of the work performed, you should resolve them tractor BEFORE signing this form.

n completed, with the exception of the following:

 is to complete these items and will notify CSG upon their completion. Job will not be complete until Contractor n a new Certificate of Completion that has no pending items.
 Contractor Initials: _____

s that the work and the equipment furnished in this installation job comply with the requirements as outlined in the Contractor sment with NYSERDA and PSEGLI. In the event that any defect in workmanship or equipment is discovered within one (1) year orization, the Contractor will remedy, repair, correct, or cause to be remedied, repaired, corrected, or replaced at Contractor's t: in equipment or workmanship. The foregoing warranty survives any inspection NYSERDA or PSEGLI may elect to make.

UIPMENT COVERED BY HOME PERFORMANCE WITH ENERGY STAR PROGRAM FINANCING OR E PERFORMANCE SUBSIDY: Contractor hereby waives and releases any and all lien or claim of, or right, to lien, under hchanics liens with respect to and on the property referenced above.

UIPMENT NOT COVERED BY HPwES FINANCING: Said waiver does not apply to any work and equipment furnished job that is not financed by HPwES Financing or an Assisted Home Performance Subsidy. Any costs incurred by Customer of the HPwES Financing Loan and the Assisted Home Performance Subsidy, or financed by any means other than HPwES sisted Home Performance Subsidy, are subject to a mechanics lien or claim under applicable laws relating to mechanics liens o on the property referenced above.

ent hereby certifies personal ownership of the home specified above, that all materials and equipment included in the construction er, job order, bid summary, proposal, invoice, etc.) have been furnished and installed by the Contractor, and that the work has usuant to the contract. In addition, we have not obtained the benefit of and will not receive any cash payment, rebate, cash ission, or anything from the contractor as inducement to enter into the HPwES Loan Agreement or to proceed with work. We rms specified in the Loan Agreement and authorize payment to the above Contractor.

ment options for projects that qualify for incentives through NYSERDA and/or PSEGLI initial to select applicable options (Option #3 is only available for projects with HPwES Financing):

Incentive Assignment Options
<input type="checkbox"/> request the incentive(s) to be sent directly to me (Cash Jobs Only)
<input type="checkbox"/> assign the incentive(s) to go directly to the Home Performance Contractor listed below
<input type="checkbox"/> assign the PSEGLI incentive to NYSERDA for payment to the Contractor listed below
<input type="checkbox"/> assign the incentive(s) to go directly to the Town of Babylon and applied towards my LIGH financing

sived a copy of the Comprehensive Home Assessment report.

NJ Board of Public Utilities/Clean Energy Program



Building Performance Institute Accredited
Contractors prove the highest level of competency for home energy performance



CERTIFICATE OF COMPLETION

Prepared for:

By:

Regarding Contract #:

Project #:

PXXX

Description	Location	Quantity	Customer Price
Shell Test & Seal			
Hatch: Polyisocyanurate 2 inch			
15.5 SEER Central Air Conditioning			
Gas Furnace 97% AFUE			
Gas Hot Water Tank EF 0.63			
3" of cellulose			

SAMPLE MEASURES

Implementing the package of measures as listed above results in an estimated Total Energy Savings of _____%

The homeowner is applying for the following incentive: CASH BACK, LOAN

Homeowner Signature (same as loan recipient)

Date

CERTIFICATE OF COMPLETION

Prepared for:

By:

Regarding Contract #:

Project #:

PXXX

Description	Location	Quantity	Customer Price
carrier cool choice incentive			
bath vents to ext & ins			

Totals:

Implementing the package of measures as listed above results in an estimated Total Energy Savings of _____%

The homeowner is applying for the following incentive: CASH BACK, LOAN

Homeowner Signature (same as loan recipient)

Date

Contractor Signature

Date

Printed 3/28/2013

Page 2 of 3

Industry is talking and walking!

State
Energy
Offices

Realtors

Appraisers

Labeling
Standards

HPwES

Lenders

Lessons Learned

- **Implementation of certificates is key**, both for HP programs and real estate
 - Design can be flawless but if it can't be moved to market, the certificate is useless
- **Appraisers and lenders** need information on **reliability and replicability** of impact of energy efficiency measures on homes
 - Information provided on certificates need to correspond with Green Addendum
- Need research and ongoing monitoring to make sure **completed measures are accurately captured**
 - How often should certificates or labels be updated?
- Most EE programs use a “label”, particularly in the new homes space

Why use a certificate?

Are certificates the face of energy efficiency improvements?

- Quantify energy savings and give homeowners something tangible at project completion
- Influence market at time of sale
- Invoice work completed and necessary for incentive processing
 - Documenting investments can be used as tool for determining resale value

But...

Beware of sending signal to homeowners that they are done.

Is there a need in the market for an existing homes label?

Home Performance with ENERGY STAR knows...

- **Labels stay with the house**, not the homeowner
- Homeowners **value the Home Performance with ENERGY STAR mark**
- ENERGY STAR mark is a **status symbol**
- ENERGY STAR label on homes means houses are **efficient, healthy, safe and comfortable**
- Labels **deliver on promises** and should be able to market measures beyond energy efficiency (health, safety, comfortable, etc.)

Where do we go from here?



What is the value to and burden placed on contractors?

How can programs adapt certificates so they add value, and not confusion, to the market?

How do we align homeowner, appraisers, realtors, lenders and program Sponsor needs?

Why are Sponsors not issuing certificates?

Is there a need in the market for an existing homes label?

What role can Home Performance with ENERGY STAR play?





Illinois Home Performance Silver & Gold Certificates

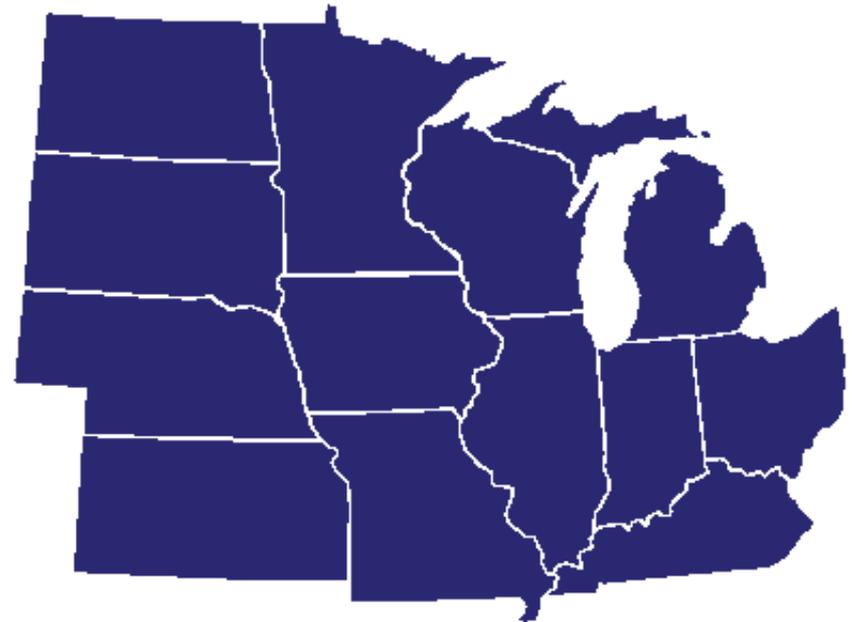
Improve the comfort, safety, and value of your home through an Illinois Home Performance with ENERGY STAR® upgrade



wbaker@mwalliance.org
1-866-395-1032



MEEA is a collaborative network whose purpose is to advance energy efficiency to support sustainable economic development and environmental preservation.



Basics

- Illinois' version of national Home Performance with ENERGY STAR® program
- Statewide platform for whole home retrofit programs
- Existing, 1-4 unit homes throughout Illinois with no income eligibility criteria
- Provide support for current whole home work
- Results in Illinois Home Performance with ENERGY STAR Silver and Gold certifications
- IL DCEO grant with ratepayer funding

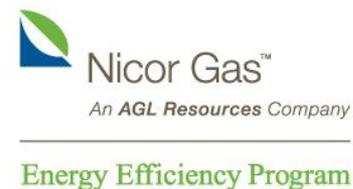
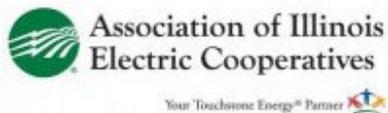




Illinois
Department of Commerce
 & Economic Opportunity
 Pat Quinn, Governor



Historic Chicago
Bungalow Association



ENERGY IMPACT ILLINOIS

A Touchstone Energy® Cooperative



What is an IHP job?

From a drafty, inefficient home to one that's safe, comfortable, & saves energy

Assess the home's current state through a diagnostic energy audit

Improve with air sealing, insulation, HVAC/duct repair

Verify work quality and energy savings with "test out" & QA

What is an IHP job?

From a drafty, inefficient home to one that's safe, comfortable, & saves energy

Assess the home's current state through a diagnostic energy audit

Improve with airsealing, insulation, HVAC/duct repair

Verify work quality and energy savings with "test out" & QA





**Illinois Home
Performance**

www.IllinoisHomePerformance.org

Silver Certificate of Completion

Home address:

123 Main St
Cary, IL 60013

Contractor:

Business Name

Program Provider:

Program Provider

Work Completed On*:

4/30/2014

*Certificate issued 4/30/2014 by the Midwest Energy Efficiency Alliance (MEEA) on behalf of the Illinois Energy Office based solely on the reporting by or estimates of contractor. A minimum of 15% is required to receive a Certificate of Completion. See reverse.

This home has achieved an estimated total energy reduction of at least 15%* after the following home energy upgrades:

- ✔ Air sealing performed reducing total air leakage rate by 30%
- ✔ Attic insulation improved to R-49

Melville Nickerson
Deputy Director, Illinois Energy & Recycling Office



Home Performance with ENERGY STAR offers a comprehensive, whole-house approach to home improvement that results in better energy efficiency, greater comfort, and lower energy bills.

ENERGY STAR is a voluntary partnership sponsored by the U.S. EPA and the U.S. DOE to protect the environment through superior energy efficiency.



**Illinois
Department of Commerce
& Economic Opportunity**
Pat Quinn, Governor

Proj #

Silver Certificate of Completion

- Retrofit achieves a minimum of **15% modeled total energy savings reduction** from baseline, as determined during home energy assessment.

-OR-

- Retrofit includes the following two components, at a minimum:
 - Building infiltration rate:** 4 ACH50 –OR –30% reduction below baseline. Must follow BPI Building Airflow Standard requirements and
 - Attic insulation:** R-value increased to the level specified in the current state or local code, whichever is higher.



**Illinois Home
Performance**

www.IllinoisHomePerformance.org

Gold Certificate of Completion

Home address:

1000 Main St
City, IL 60000

Contractor:

Green Home Improvement

Program Provider:

Ameren Illinois

Work Completed On*:

3/14/2014

*Certificate issued 4/14/2013 by the Midwest Energy Efficiency Alliance (MEEA) on behalf of the Illinois Energy Office based solely on the reporting by or estimates of contractor. A minimum of 15% is required to receive a Certificate of Completion. See reverse.

This home has achieved a superior level of energy reduction after the following home energy upgrades:

- ✔ Air sealing performed reducing total air leakage rate by 30%
- ✔ Attic insulation improved to R-49
- ✔ 96% AFUE furnace installed
- ✔ R14 insulation installed in floor

Melville Nickerson
Deputy Director, Illinois Energy & Recycling Office



Home Performance with ENERGY STAR offers a comprehensive, whole-house approach to home improvement that results in better energy efficiency, greater comfort, and lower energy bills.

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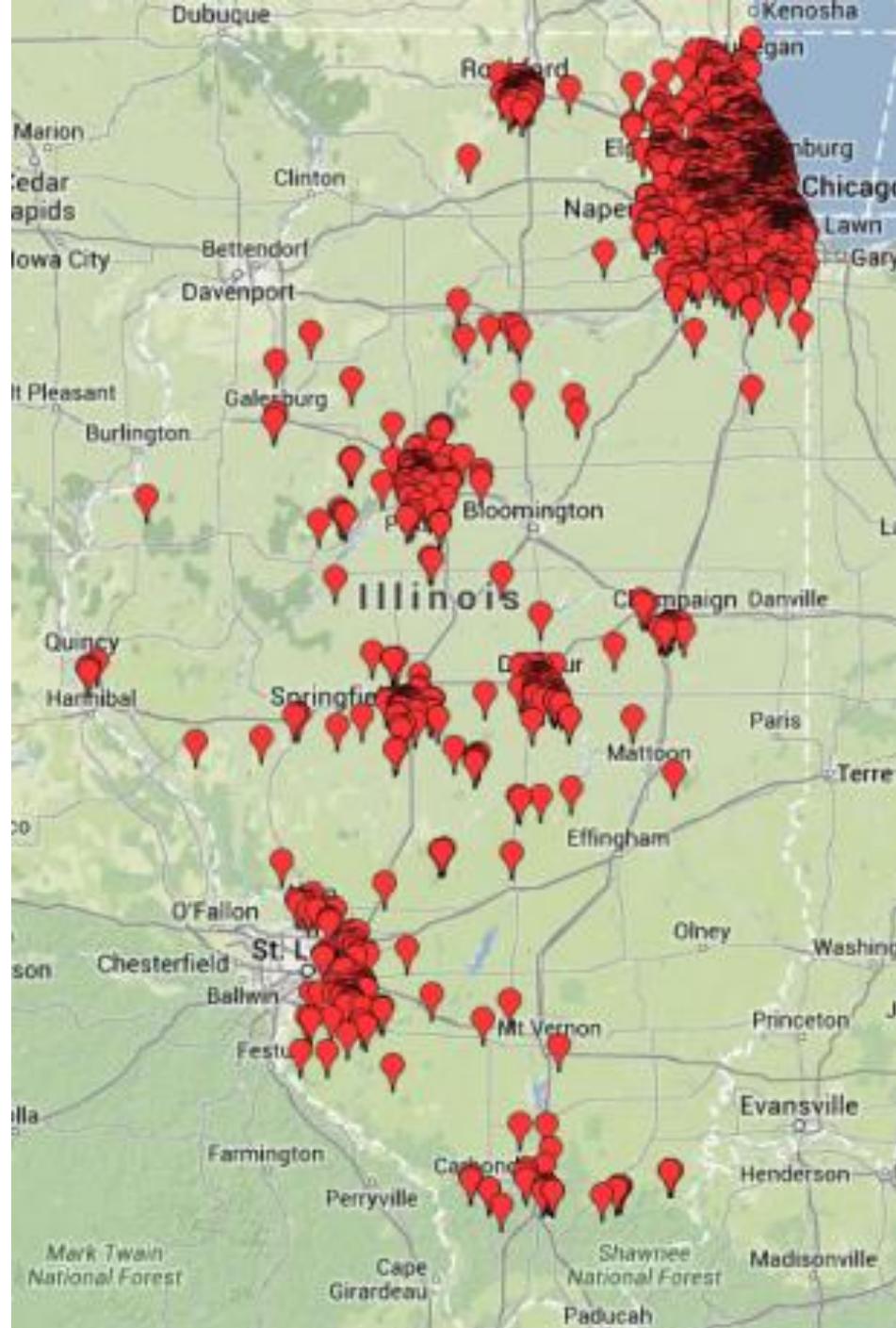
Gold Certificate of Completion

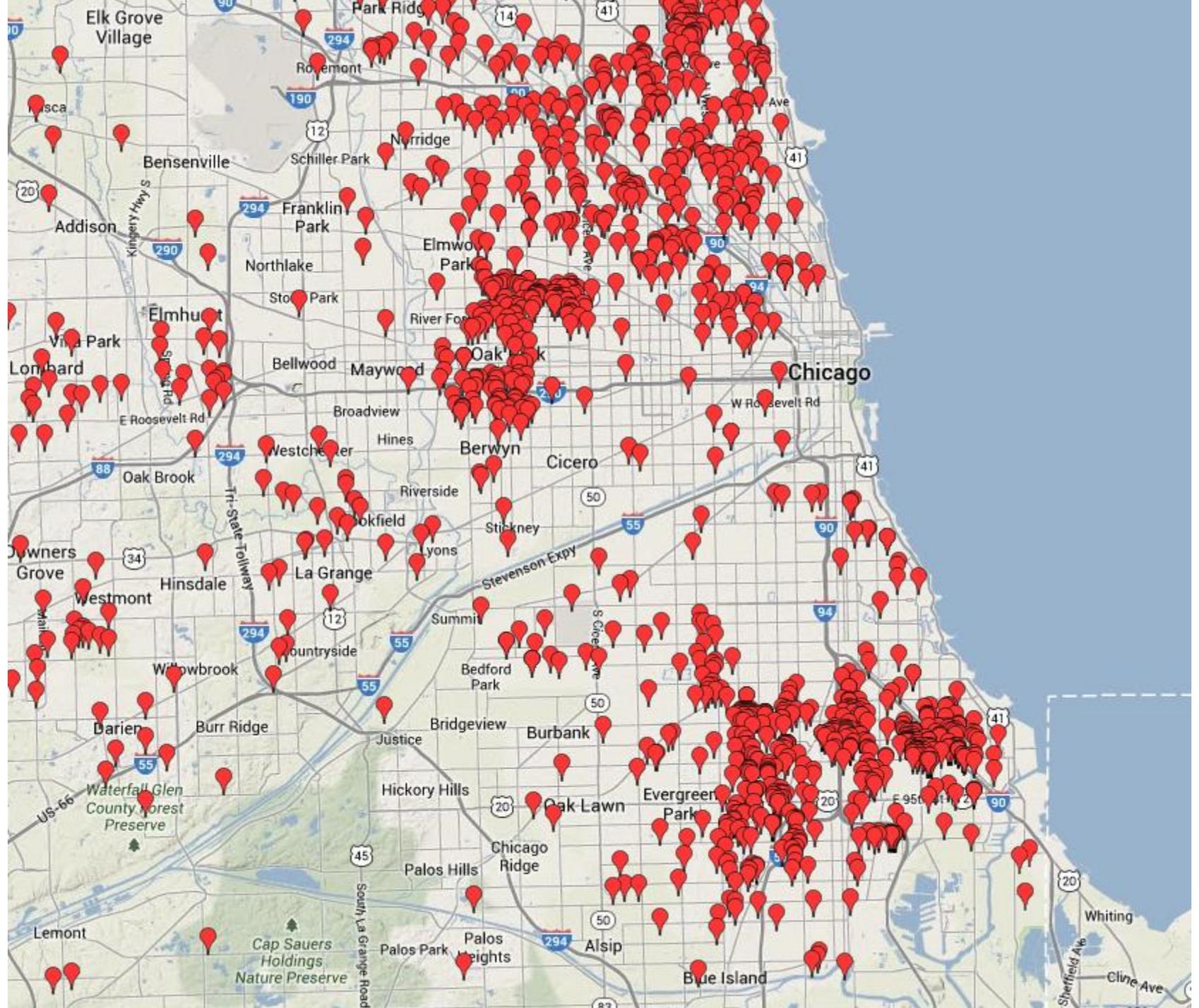
Both of the following:

- ✔ **Ventilation** - Meets requirements set forth in ASHRAE 62.2 2007
- ✔ **Building infiltration rate** - 4 ACH50 –OR– 30% reduction

And, four out of five of the following:

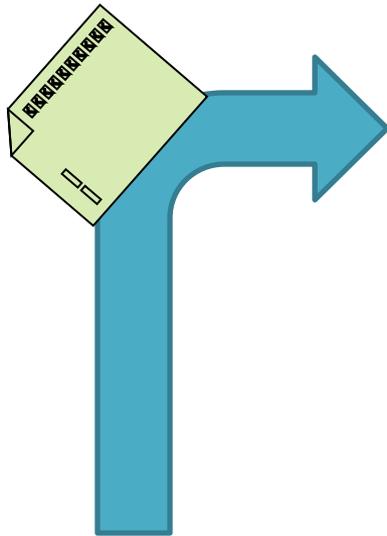
- ✔ **Duct leakage rate** - Supply + return leakage to outside/fan flow \leq 10% -OR- ducts are completely within conditioned space
- ✔ **Wall insulation** - $R \geq 13$
- ✔ **Attic insulation** - $R \geq 49$
- ✔ **Basement/crawlspace insulation:**
 - If unconditioned, floor insulation $R \geq 30$
 - If conditioned, wall insulation $R \geq 10$ continuous or $R \geq 13$ cavity
- ✔ **Heating and cooling equipment** - ENERGY STAR[®] qualified at time of install



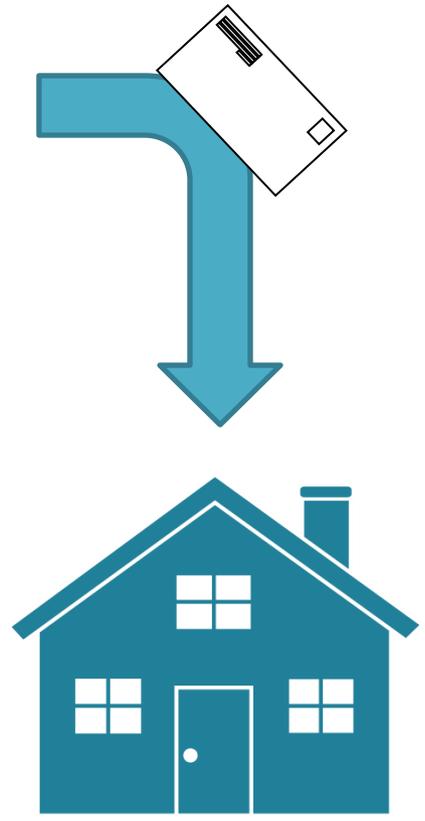




IHP Certificate Process



MEEA reviews application, determines eligibility, creates certificate, and sends to homeowner



ActOnEnergy

Program Provider collects certificate applications from Participating Contractors and sends to MEEA



Illinois Department of Commerce & Economic Opportunity
Pat Quinn, Governor

Capturing the Value

Value for Green Homes

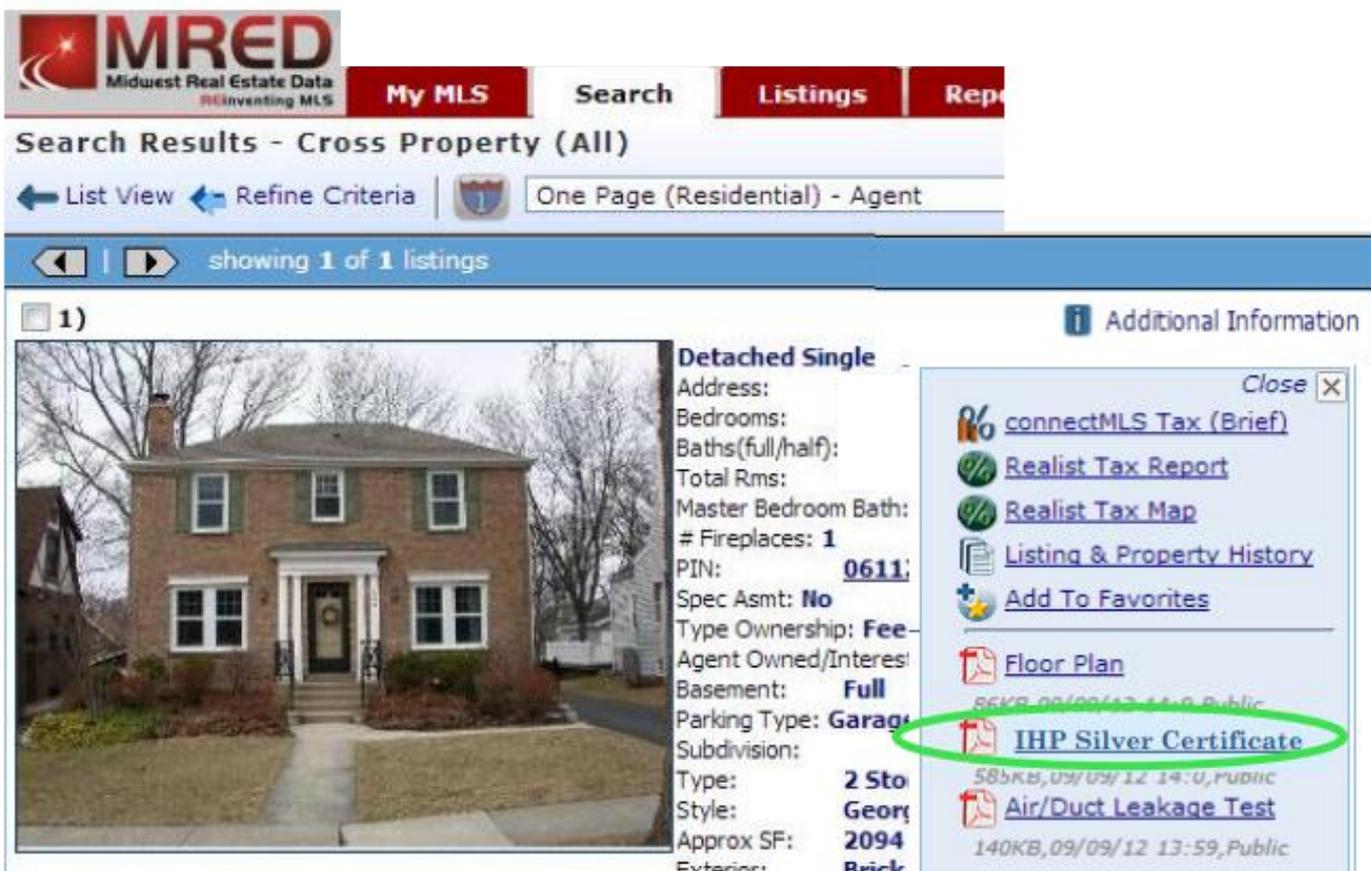


Graphic courtesy of NAR; www.greenthemls.org

Incorporating IHP into Real Estate Transactions



Capturing the Value



MRED
Midwest Real Estate Data
ReInventing MLS

My MLS **Search** **Listings** **Repe**

Search Results - Cross Property (All)

List View Refine Criteria One Page (Residential) - Agent

showing 1 of 1 listings

1) **Additional Information**

Detached Single

Address:
Bedrooms:
Baths (full/half):
Total Rms:
Master Bedroom Bath:
Fireplaces: **1**
PIN: **0611**
Spec Asmt: **No**
Type Ownership: **Fee**
Agent Owned/Interest:
Basement: **Full**
Parking Type: **Garage**
Subdivision:
Type: **2 Sto**
Style: **Geor**
Approx SF: **2094**
Exterior: **Brick**

IHP Silver Certificate

Screenshot courtesy of Midwest Real Estate Data Corp LLC and Laura Stukel at Elevate Energy; www.mredllc.com

EXISTING HOME/REMODELING OPTIONS:

- [Illinois Home Performance with Energy Star](#)
- [Energy Savers Program, Historic Chicago Bungalow Association](#)
- [National Association of Home Builders \(National Green Building Standard ICC 700\)](#)

Illinois Home Performance with Energy Star, IHP

Summary: Illinois Home Performance with ENERGY STAR (IHP) is the state's version of the national Home Performance with Energy Star program which promotes a comprehensive approach to home energy savings and is currently running in 33 states across the county. IHP connects homeowners with qualified contractors and energy auditors who assess existing home 'performance' and perform renovations that result in energy savings and improved comfort, durability, and safety.

IHP is a statewide program that is made possible by many groups across Illinois. In Northern Illinois, Energy Impact Illinois (EI2) runs the program and offers homeowners low-interest loans and a variety of online resources. Upon completion of a home energy upgrade, the Illinois Energy Office issues the homeowner an Illinois Home Performance with ENERGY STAR Certificate of Completion (also known as an IHP Certificate) which indicates that specific energy savings or performance metrics have been achieved. There are Gold and Silver Certificates; what it takes to earn each is spelled out on www.IllinoisHomePerformance.org/what-expect/certificate.

Sponsored By: Illinois Energy Office

Type: Certification

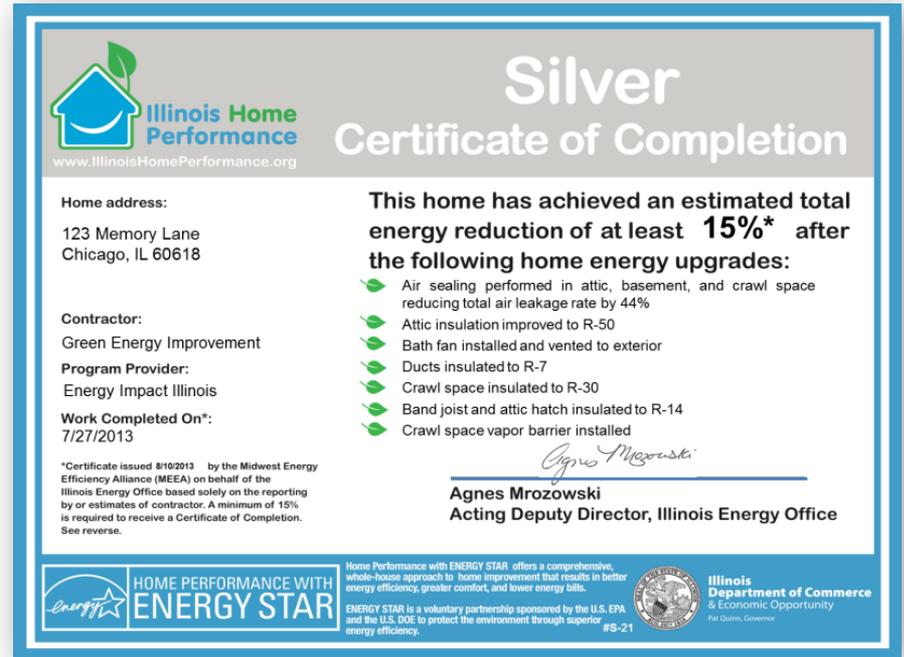
What it Tells You: What improvements were installed, estimated annual total energy savings, estimated annual dollar savings, which contractor and program provider were involved in the project.

Homeowners, contractors, and real estate professionals are encouraged to reference the IHP website for full details on how to earn a Certificate - www.IllinoisHomePerformance.org/what-expect/certificate. Any questions may be addressed to IHP staff at 866-395-1032.

Version History: IHP is in its first version and has been offered since November, 2011.

Real Estate Agent Education

- Basic building science, energy efficiency programs, IHP, and the value of the IHP certificate
- 42 Appraisers last year
- 400 real estate agents this year



Ready, Set, GROW!

Grow Your Green Building Knowledge with Green 200 Class from NAR

As the result of a Midwest Energy Efficiency Alliance (MEEA) grant, **Green 200: The Science of Green Building** is being offered on May 28 for \$29. If you register before midnight, April 30, you will save an additional \$10.



Green 200: The Science



Contractor Marketing

Illinois Home Performance

Improve the comfort, safety, and value of your home through an Illinois Home Performance with ENERGY STAR® upgrade.

Illinois Department of Commerce & Economic Opportunity
MEEA
Midwest Energy Efficiency Alliance

Capturing the Value

Illinois Home Performance is about more than saving on energy bills and improving comfort at home - it's also about getting back some of your investment when you sell your home. Because many home performance improvements are invisible and difficult to value, each Illinois Home Performance project receives an official Certificate of Completion from the State of Illinois that documents major improvements.

Recent national research suggests that because certificates like these help communicate improvements to the real estate market, they help homes sell faster and for a premium. Read more on the Illinois Home Performance website (see back page).

What is Illinois Home Performance?

Thousands of Illinois homeowners have increased the comfort, safety, durability, and value of their homes through Illinois Home Performance. Each project represents a trusted partnership between Illinois Home Performance, a Program Provider in your area, and one or more Participating Contractors. Projects follow a proven three-step process to help you recognize all of the health and financial benefits of a whole-home energy upgrade.

Assessment

Your contractor will use specialized equipment to identify performance issues and then present you with tailored recommendations based on your home's current conditions.

Upgrade

Your contractor will make sure the work gets done right according to the highest industry standards. Common improvements include sealing air leaks and adding insulation.

Verification and Quality Assurance

Before leaving your home, your contractor will repeat diagnostic tests to ensure the work was completed correctly. Also, third-party quality assurance inspections are conducted on work to maintain consistently successful results.

How to Get Started

To sell your home, follow these easy steps:

1. Upload your Certificate of Completion to the Service.
2. Add your Certificate to your listing to explain the benefits of a more efficient home.

How to Get Started

Visit www.illinoishomeperformance.org to learn more about how Illinois Home Performance can help you improve your home. When you're ready to get started, we'll connect you with a qualified contractor in your area and help you start a conversation with them about your home.

Still have questions? Give us a call at (866) 395-1032 ext. 1

Need an unbiased opinion or technical advice? Call our Building Science Hotline at (866) 395-1032 ext. 3

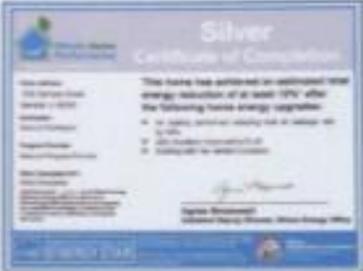
Illinois Home Performance is offered in partnership with the following partners. For rebate and financing information, please visit www.illinoishomeperformance.org/rebates.



- **Step 1:** Give a copy of your Certificate to your real estate broker
- **Step 2:** Make sure they upload your Certificate to your home's listing on your Multiple Listing Service
- **Step 3:** Promote your Certificate to potential buyers and explain the benefits of your safer, more comfortable and more efficient home

Capturing the Value

Illinois Home Performance is about more than saving on energy bills and improving comfort at home - it's also about getting back some of your investment when you sell your home. Because many home performance improvements are invisible and difficult to value, each Illinois Home Performance project receives an official Certificate of Completion from the State of Illinois that documents major improvements.



Recent national research suggests that because certificates like these help communicate improvements to the real estate market, they help homes sell faster and for a premium. Read more on the Illinois Home Performance website (see back page).

Once you're ready to sell your home, follow these easy steps:



- Step 1:** Give a copy of your Certificate to your real estate broker
- Step 2:** Make sure they upload your Certificate to your home's listing on your Multiple Listing Service
- Step 3:** Promote your Certificate to potential buyers and explain the benefits of your safer, more comfortable, and more efficient home

“With all the gloom about housing prices these days, it is great to do something inexpensive that will improve the value of my house. A buyer will pay more for a home that costs less to live in.”



“This was well worth the investment. And when I decide to sell my home, it will be listed as green on the MLS. And, from watching these home shows, more and more people are looking at buying and rehabbing green.” – Janet Jaback

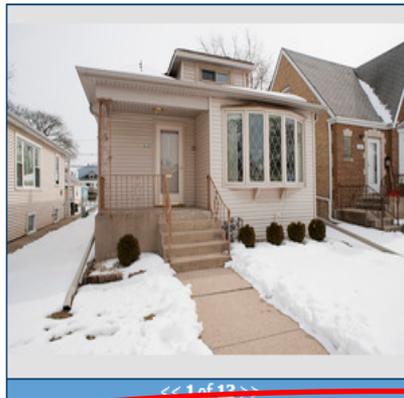
Chicago's First IHP Success

Search Results - Detached Single

List View Refine Criteria Full - Agent Show Quick Advanced Email

showing 1 of 2 listings

1)



Detached Single

Status: **CLSD**
 Area: **635**
 Address: **2127 N 76th Ave, Elmwood Park, Illinois 60707**
 Directions: **76th Ave. is a north bound street**
 Sold by: **Terry DeNardo (240220) / Hometown Real Estate Group LLC (24060)**
 Closed: **05/28/2013**
 Off Market: **04/08/2013**
 Year Built: **UNK**
 Dimensions: **30X125**
 Ownership: **Fee Simple**
 Corp Limits: **Elmwood Park**
 Coordinates: **N:2127 W:7600**
 Rooms: **6**
 Bedrooms: **2**
 Basement: **Full**

MLS #: **08286971**
 List Date: **03/08/2013**
 List Dt Rec: **03/08/2013**
 Contract: **04/08/2013**
 Financing: **Conventional**
 Blt Before 78: **Yes**
 Subdivision:
 Township: **Leyden**
 Bathrooms **2 / 0**
 (full/half):
 Master Bath: **None**
 Bsmnt. Bath: **Yes**

List Price: **\$165,000**
 Orig List Price: **\$165,000**
 Sold Price: **\$163,000**
 Lst. Mkt. Time: **32**
 Points:
 Contingency:
 Curr. Leased: **No**
 Model:
 County: **Cook**
 # Fireplaces:
 Parking: **Garage**
 # Spaces: **Gar:2**
 Parking Incl.
 In Price:

Remarks: **First Silver Certificate Energy Star home in Elmwood Park! This means comfort and energy/\$ savings for you! Large bright eat-in kitchen. Spacious living room & Dining room. Gorgeous hardwood floors. w/ Flood control system, full bath, tons of storage, could add 3rd bedroom. 2.5 car garage, patio, beautiful landscaped lawn w/ in ground sprinkler. New hot water heater. Great block near schools**

School Data

Elementary: **Elmwood (401)**
 Junior High: **Elm (401)**
 High School: **Elmwood Park (401)**
 Other:

Assessments

Amount: **\$0**
 Frequency: **Not Applicable**
 Special Assessments: **No**
 Special Service Area: **No**
 Master Association: **No**

Tax

Amount: **\$4,319**
 PIN: **12362160050000 (Map)**
 Mult PINs: **No**
 Tax Year: **2010**
 Tax Exmp: **Homeowner**

Miscellan

Waterfront: **No**
 Appx SF: **0**
 SF Source: **Not**
 Acreage:

Room Name	Size
Living Room	12X14
Dining Room	12X12
Kitchen	11X15
Family Room	

Level
Main Level
Main Level
Main Level
Not Applicable

Flooring
Hardwood
Hardwood
Ceramic Tile

Win Trmt

Room Name	Size
Master Bedroom	10X10
2nd Bedroom	10X10
3rd Bedroom	
4th Bedroom	

Level
Main Level
Main Level
Not Applicable
Not Applicable

Flooring
Hardwood
Hardwood

Chicago's First IHP Success

	IHP Home	Average of Competition
Final List Price	165,000	147,867
Closed Price	163,000	138,434
List Price compared to Closed Price	99%	94%
# of Listing Days	30	126
	Contract date - April 8, 2013	16 homes closed between Jan 1-June 30, 2013

Data courtesy of Midwest Real Estate Data Corp LLC and Laura Stukel at Elevate Energy; www.mredllc.com



Questions? Contact Us

Will Baker
Program Manager
Midwest Energy Efficiency Alliance
wbaker@mwalliance.org
312-673-2489

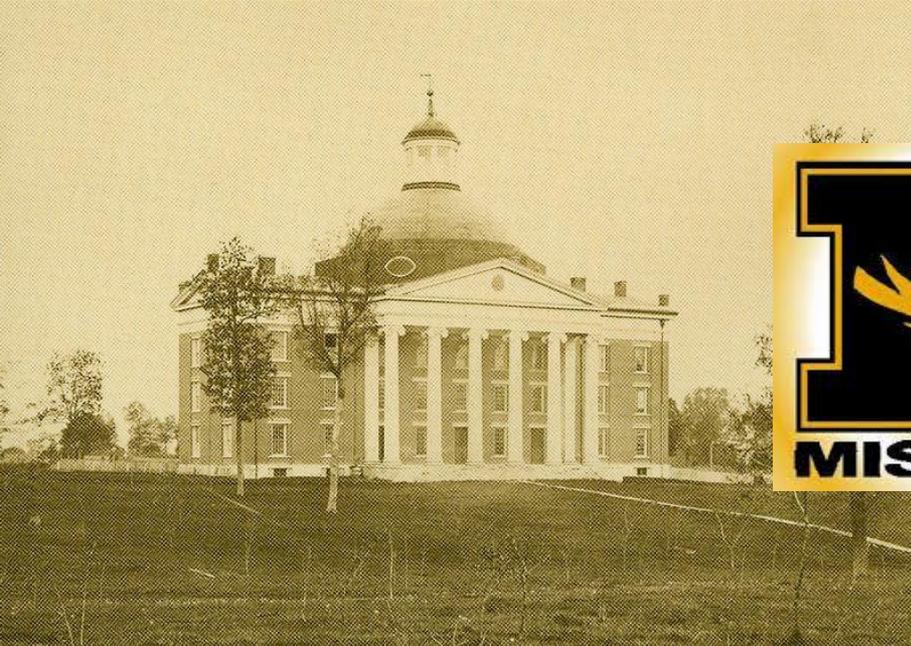


Illinois
Department of Commerce
& Economic Opportunity
Pat Quinn, Governor

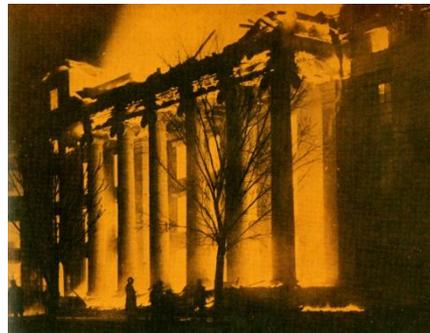


Home Energy Certificates

History – Began in 1904



Academic Hall fire - 1892



New Academic Hall with
historic columns

Energy Rating Origin



50% rental saturation

- Sparked original interest in efficiency of rental property
- Landlords don't like utility history as a rating

High Energy Costs

- More awareness and appreciation of energy efficiency

Road Blocks



1. Many modeling software vendors on the market
 - Which one is the best?
 - How long will the vendor be in business?
 - No quality assurance
2. REM/Rate is accepted by EPA, builders and lenders
 - \$400 to \$600 per rating

Calculate Energy Savings and Rebate



Type of Improvements	Minimum Requirement	Pre	Post	% of Total Improved	Savings	Ft ² Improved	Rebate \$	Rebate Max
Attic Slope	R-10	0	10	0%	0.00%	0	\$0.00	
Attic 1 Insulation	R-38	19	50	100%	11.78%	1500	\$465.00	\$500
Attic 2 Insulation	R-38	0	38	0%	0.00%	0	\$0.00	
Duct Insulation	R-13	0	13	0%	0.00%		\$0.00	\$300
Duct Leakage (in CFM)	50 CFM change min	0	0		0.00%		\$0.00	\$300
Rim joist	R-13	0	0	0%	0.00%		\$0.00	\$20
ACHn		0	0		0.00%		\$0.00	\$420
ACH50		0	0					
Wall 1		0	13	0%	0.00%	0	\$0.00	
Wall 2	R-13	0	13	0%	0.00%	0	\$0.00	\$500
Floor over unconditioned	R-19	0	19	0%	0.00%	0	\$0.00	\$500
Crawl space wall	R-10	0	10	0%	0.00%	0	\$0.00	\$500
Windows & Doors		Total # openings		# Replaced	Savings		Rebate	
Low E and ≤.30 U Value		0		0	0%		\$0.00	\$500
HVAC Fuel	Home Type	Old HVAC		New HVAC		Savings	Rebate	
Gas	Gas_basement	_10SEER_w_80percent		95%_15SEER		20.33%	\$0.00	\$200
								\$1200 Max
				Estimated Total Savings	29.72%		\$465	Rebate Total

Our Solution



Home Energy Score to the rescue!!

- National DOE program
 - Partnered with Lawrence Berkeley National Laboratory

HOW DOES YOUR HOME COMPARE?

U.S. DEPARTMENT OF ENERGY
Home Energy Score

FIND OUT WITH HOME ENERGY SCORE.

▶ Click to learn more

The advertisement banner features a photograph of a row of red brick houses on the left. The text is centered and right-aligned. The Home Energy Score logo consists of a row of seven green bars of varying lengths, representing a score. A small orange arrow points to the text "Click to learn more".

Benefits



Free access to partners

Quality assurance

Asset based energy profile

- Eliminates behavioral energy usage

Quantifiable energy savings for improvements

Free online training

Lower cost - \$150 rating



Implementation



- Add Home Energy Score to existing Home Performance with Energy Star program



Initial Assessment



1. Complete documentation of structure and equipment efficiency
2. Diagnostic test
3. Recommendations
 - Regulated by Water & Light HPwES program
4. Energy modeling with HEScore

Improvements



Home owner chooses which recommendations to install

Must make at least one improvement

- Loan program to promote more improvements

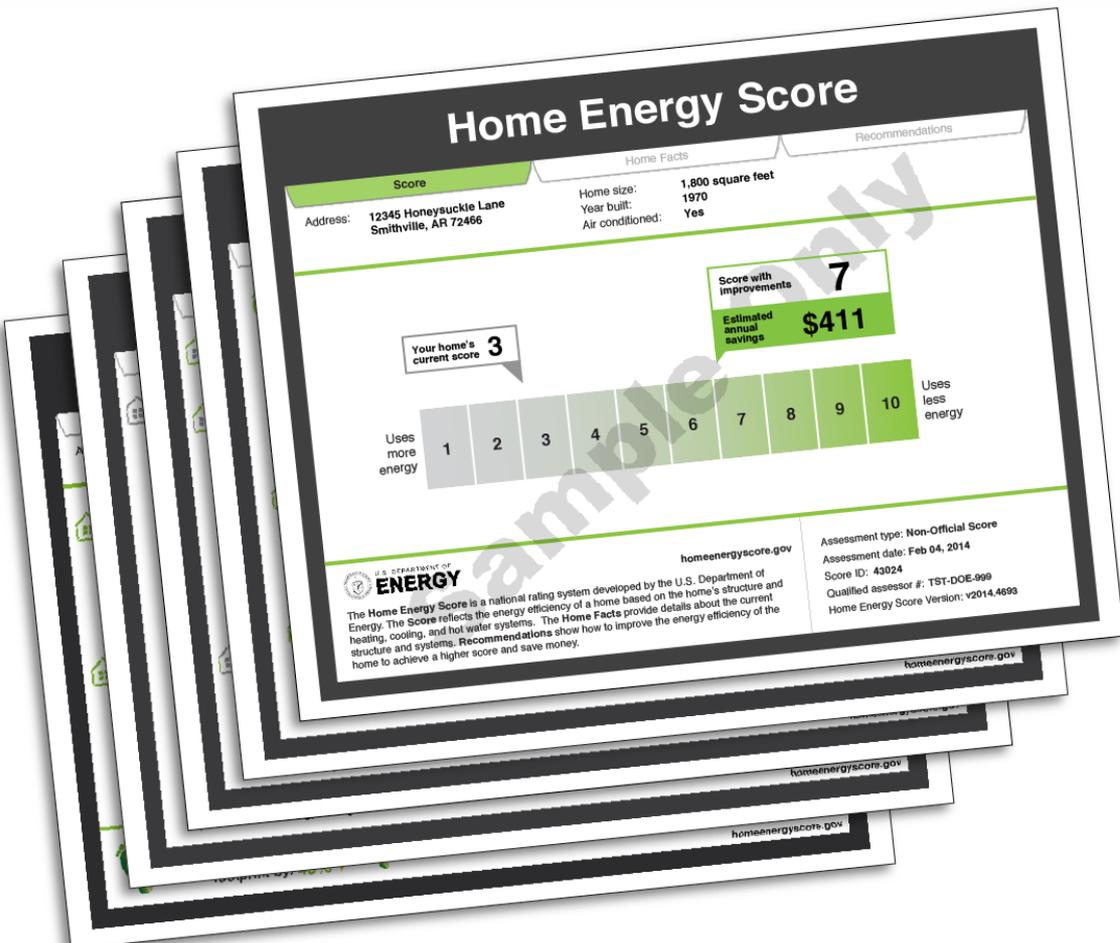
Schedule post assessment

Post Assessment



1. Perform QA of contractor and work
2. Process rebate
3. Energy modeling with HEScore

Certificates with IA

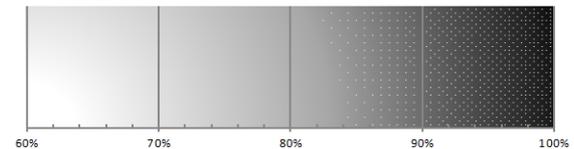


Columbia Water and Light's Estimated Efficiency Score

Pre Score MBTU	Improvement Score
350	7

0.47

47%



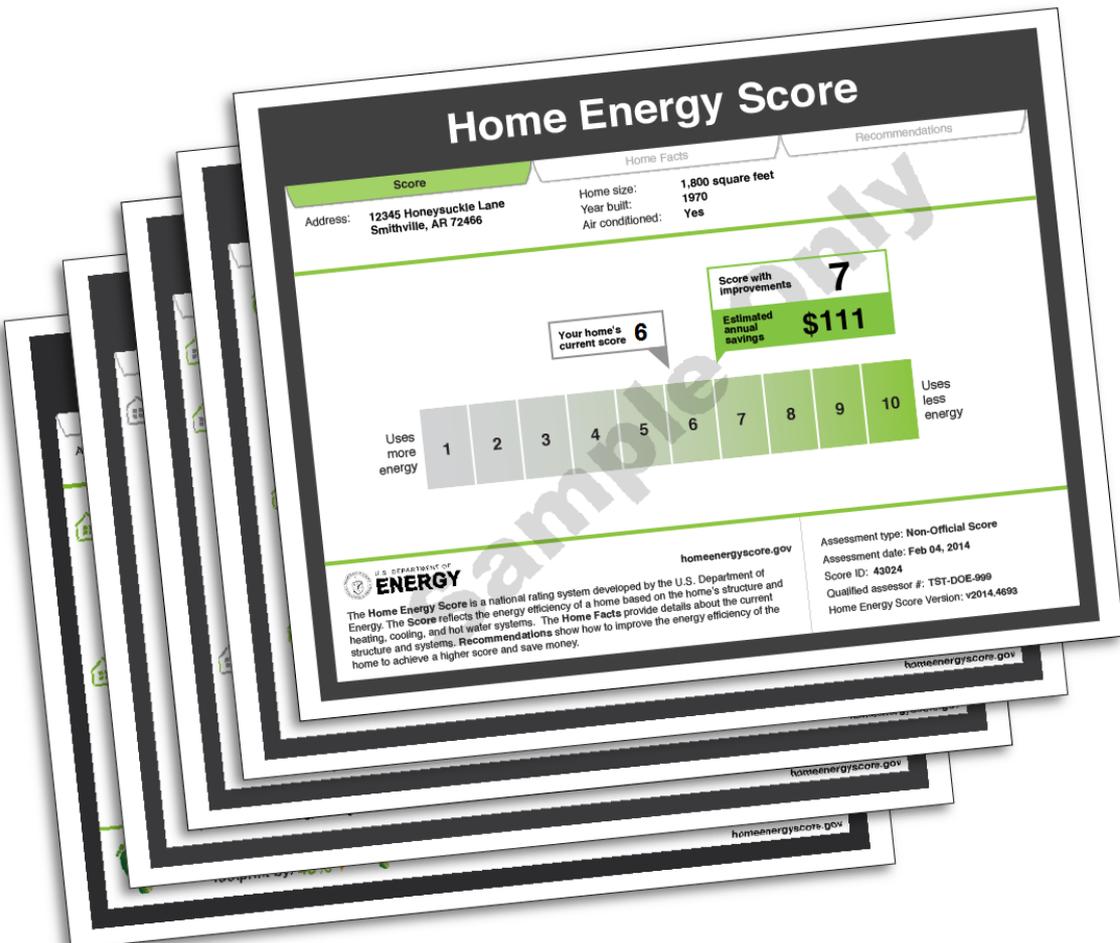
Percentage of your home's energy efficiency potential with 100% being the most efficient

Address: 123 Energy Way, Columbia, MO 65203

Columbia Water & Light's Estimated Efficiency Score indicates the percentage of a home's maximum energy efficiency potential as modeled by the U.S. Department of Energy's Home Energy Score. This form is not an official Efficiency Score. An official Columbia Water and Light Efficiency Score will be provided after the completion of a qualifying post assessment. The maximum energy efficiency for a home is based on recommendations that provide a 10-year payback or less.

(573) 874-7325
ColumbiaPowerPartners.com

Certificates with PA



Columbia Water & Light's **EFFICIENCY SCORE**

89%



ESTIMATED ANNUAL ENERGY COSTS

\$1000-\$1200

ADDRESS 123 Energy Way

HOME SIZE (square foot) 2731

YEAR BUILT 1962

ASSESSMENT DATE 2/15/2013

Columbia Water & Light's Efficiency Score indicates the percentage of a home's maximum energy efficiency potential as modeled by the U.S. Department of Energy's Home Energy Score. The maximum energy efficiency is based on recommendations that provide a 10-year payback or less. Annual energy cost is based on equipment efficiency, size of home and number of bedrooms. The actual costs may vary due to weather, shading, occupant behavior, number of occupants and home maintenance.

(573) 874-7325

ColumbiaPowerPartners.com



Marketing Handout



Home Energy Score

Know how your home compares

The Home Energy Score gives you a quick understanding of your home's energy performance, much like how your car's miles per gallon (MPG) rating lets you know how efficient your car is. The size of your home matters because larger homes tend to use more energy. If two houses have the same structure and equipment, but one is bigger, the smaller house will generally receive a higher (better) Score.

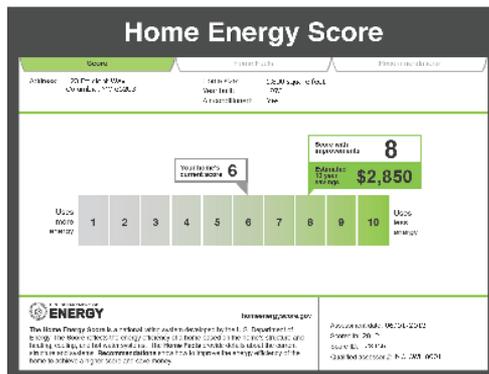
The Home Energy Score is a FREE service for participants of the Home Performance with Energy Star program. This program is a whole-house approach to energy efficiency. A Columbia Water & Light approved contractor will do a complete energy assessment of your home and provide suggested Improvements. The recommended measures are realistic and cost-effective.

You will be given an Initial Home Energy Score after the assessment and then a final Home Energy Score once you complete the upgrades. This U.S. Department of Energy certification program will show you the value of your energy efficiency upgrades. It can also be used for documentation of your efforts to a future buyer of your home.

What does your score mean?

A higher score means a more energy efficient home

Using the Home Energy Scoring Tool, your home will be scored on a scale of 1 to 10. The score with Improvements represents the most efficient your home can be with cost-effective measures. Keep in mind: Your home may not be able to score a 10 due to your home's size or other conditions. A score of 10 indicates that the home uses very little energy and is a smaller home. A score of 1 indicates the home is probably a larger home or needs extensive energy improvements.



To help finance energy efficiency upgrades, Columbia Water & Light offers electric customers up to \$1,200 in rebates and low-interest loans.

U.S. DEPARTMENT OF ENERGY
Home Energy Score

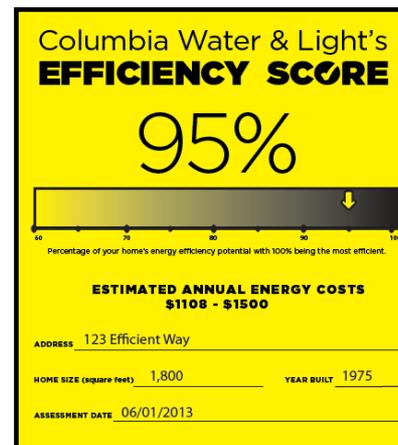
EFFICIENCY SCORE

When it is time to buy a household appliance, you can easily view how much it will cost to operate it with the bright yellow EnergyGuide label. Columbia Water & Light is using this same approach for homes. The **Efficiency Score** is an official certification program that will show you and potential buyers of your home the value of your energy efficiency upgrades.

The Efficiency Score is a FREE service for participants of the Home Performance with Energy Star program. This program is a whole-house approach to energy efficiency. The recommended measures are realistic and cost-effective. To help finance the energy efficiency upgrades, Columbia Water & Light offers up to \$1,200 in rebates and low-interest loans.

One of our approved Home Performance with Energy Star contractors will do a complete energy assessment of your home and provide suggested improvements along with an estimated Efficiency Score. Several factors go into scoring your home, including but not limited to:

- levels of insulation
- amount of air leakage
- equipment efficiency
- size of home and materials used
- number of rooms



Sample Efficiency Score Certificate

After upgrades are made, Columbia Water & Light will mail the official certificate. It shows your home's energy efficiency rating with 100% being the most efficient and your home's annual energy costs. Your home is compared to itself and the maximum cost-effective efficiency possible.

Actual costs may vary due to weather, shading, occupant behavior, number of occupants and home maintenance.

Contact Columbia Water & Light for participation information or visit our web site.



573-874-7325
ColumbiaPowerPartners.com
info@ColumbiaPowerPartners.com

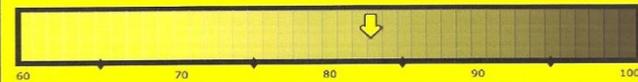
Future Look



Adhoc report from
data management
system

Columbia Water & Light's EFFICIENCY RATING

83%



Percentage of your home's energy efficiency potential with 100% being the most efficient.

ESTIMATED ANNUAL ENERGY COSTS

\$700 - \$900

ADDRESS _____

HOME SIZE (square foot) _____

YEAR BUILT _____

ASSESSMENT DATE _____

Columbia Water & Light's Efficiency Rating indicates the percentage of home's maximum energy efficiency potential as modeled by the U.S. Department of Energy's Home Energy Score. The maximum energy efficiency is based on recommendations that provide a 10-year payback or less. Annual energy cost is based on equipment efficiency, size of home and number of bedrooms. The actual costs may vary due to weather shading, occupant behavior, number of occupants and home maintenance.

The Home Energy Score graphic shows a scale from 1 to 10. The current score is 5, and the target score with improvements is 7. The U.S. Department of Energy logo is present. Text includes: "The Home Energy Score is a national rating system that reflects the energy efficiency of a home based on the home's structure and heating, cooling, and hot water systems." Address: 12345 Honeyuckle Lane, Seattle WA 98101. Assessment date: 01/13/2013. Scored in: 2012. Score ID: 1513375. Qualified assessor #: 101919. homeenergyscore.gov.

1	2	3	4	5	6	7	8	9	10
Uses More Energy					Uses Less Energy				



ColumbiaPowerPartners.com
(573) 874-7325

Customer Survey



71% say certificate has high value

29% say certificate has some value

0% said no value

(Exit poll)



Real Estate Value of Certificate



Local realtors have stated they would use it if it was on the MLS

Must have state certificate before this will happen



Missouri State Certificate?



Missouri is perusing a statewide energy certificate

Two level certificate very similar to Illinois

Questions



Terry Freeman

Energy Services Supervisor

Columbia Water & Light

(573) 874-7631

twfreema@gocolumbiamo.com

ColumbiaPowerPartners.com

Questions? Comments?