



AUGUST 21-23, 2018 • CLEVELAND, OHIO

All Roads Point to Home: Where Residential Energy and Real Estate Meet

Thursday, August 23rd
10:30 AM – 12:00 PM



Panelists:

- Pamela Brookstein, Elevate Energy
- Wendy Koelfgen, City of Portland, OR
- Meg Garabrant, New England Real Estate Network

All Roads Point to Home

August 2018
Better Buildings Summit



Energy Information in the Real Estate Transaction



Why Engage Real Estate: Center of the Transaction

- Buyers



- Sellers



- From NAR's 2017 Profile of Home Buyers and Sellers



Buyer Side: Informed Decisions



Seller Side: Fair and Consistent Value



US Department of Energy Better Buildings Accelerator

- Goals
- Partners
- Outcomes



How? Cross Industry Collaboration



Home Energy Information Accelerator Tool Kit

- Define and Consolidate Data
- Integrate Real Estate
- Grow the Inventory



<https://betterbuildingsolutioncenter.energy.gov/accelerators/home-energy-information>



One Stop Shop



Home Energy Efficiency for
Real Estate Professionals



April 2017



Home Energy Information Guide
Taking Verified Data Through The MLS To The Consumer



Appraised Value and Energy Efficiency: Getting it Right

While location, design and price are a home buyer's main considerations, surveys show that buyers rank energy saving features and equipment (e.g., air and duct sealing, insulation, and high-efficiency heating, ventilation, and air conditioning equipment) as desirable features for which buyers are willing to pay more. The home may also have an addition built to the 2012 or 2015 International Energy Conservation Code (2012 IECC or 2015 IECC), which would make the addition between 15 and 16 percent more efficient than if built to previous codes.

However, energy efficiency may be overlooked in the appraisal process for a variety of reasons, including a lack of access to quality data, underwriting impediments, and appraiser qualifications. **Many appraisers may not be aware of the unique features of an energy efficient home.**

To ensure that a home's green and/or energy efficient features and equipment are taken into account during an appraisal, it is important to document the home's energy efficiency features documentation may be completed through a program such as the Home Performance with ENERGY STAR® program or as part of the generation of a recognized



Created in Partnership
with the
U.S. Department of Energy's
Home Energy Information Accelerator
by
Council of Multiple Listing Services
and
National Association of REALTORS®
Real Estate Standards Organization



Tool Kit Audience

- Government (State & Local)
- Energy Efficiency Advocates
- Mortgage Institutions

Engage real estate professionals, MLSs, appraisers; home buyers, sellers, owners



The Chicago Accelerator: Energy eCompliance

- 1987 Chicago Ordinance
 - Disclose of gas bills when residential properties were sold or leased
 - Compliance through utility
 - Consumer protection
- 2013 Ordinance Update
 - Disclose gas **and** electric
 - Compliance through utility **or** MLS
- Energy eCompliance
 - Automatically populate MLS listing with utility costs



CHICAGO
ENERGY
eCOMPLIANCE





Search Results - Detached Single

List View Refine Criteria Full/Photo Only - Client Show Quick Advanced Email

showing 1 of 1 listings

1) SOURCE MLS



Detached Single
Status: **CLSD**

MLS #: **08557059**
List Date: **03/13/2014**
List Dt Rec: **03/13/2014**

Report Violation Anonymously Additional Information

List Price: **\$489,000**
Orig List Price: **\$489,000**
Sold Price: **\$490,000**

Closed: **04/25/2014**
Off Market: **03/14/2014**
Year Built: **1937**
Dimensions: **40 X 125**
Ownership: **Fee Simple**
Corp Limits: **Chicago**
Coordinates: **N:6100 W:5200**
Rooms: **7**

Contract: **03/14/2014**
Financing: **Conventional**
Blt Before 78: **Yes**

Lst. Mkt. Time: **2**
Points: **3500**
Contingency:
Curr. Leased: **No**

Subdivision: **Edgebrook**
Township: **Jefferson**

Model: **Georgian**
County: **Cook**
Fireplaces: **1**
Parking: **Garage**

Bathrooms **2 / 1**
(full/half):
Master Bath: **None**

Spaces: **Gar:1**
Parking Incl. **Yes**
In Price:

Utility Costs: Elec. - \$1162.18/yr,\$96.85/mo; Gas - \$1475.73/yr,\$122.98/mo

Remarks: **Edgebrook sparkling 3 bedroom Georgian. Completely updated with beautiful upscale finishes! Living room with wood burning fireplace. Kitchen has cherry cabinets, granite counters and stainless steel appliances. Hardwood floors throughout with new oak trim. Newly finished lower level family room, full bath. New windows, plumbing, electric. Great condition. Award-winning Edgebrook School district. Easy access to 94.**

Utility Costs: Elec. - \$1162.18/yr,\$96.85/mo; Gas - \$1475.73/yr,\$122.98/mo

Room Name	Size	Level	Flooring	Win Trmt	Room Name	Size	Level	Flooring	Win Trmt
Living Room	20X18	Main Level	Hardwood		Master Bedroom	14X12	2nd Level	Hardwood	
Dining Room	12X12	Main Level	Hardwood		2nd Bedroom	13X11	2nd Level	Hardwood	
Kitchen	13X10	Main Level	Ceramic Tile		3rd Bedroom	12X10	2nd Level	Hardwood	
Family Room	20X20	Basement	Ceramic Tile		4th Bedroom		Not Applicable		
Laundry Room									

Interior Property Features: **Hardwood Floors**
Exterior Property Features:

Age: **71-80 Years, Recent Rehab**
Type: **2 Stories**
Style: **Georgian**
Exterior: **Brick**
Air Cond: **Central Air**

Additional Rooms: **No additional rooms**
Garage Ownership: **Owned**
Garage On Site: **Yes**
Garage Type: **Attached**
Garage Details: **Garage Door Opener(s), Transmitter(s)**

Roof:
Sewer: **Sewer-Public**
Water: **Lake Michigan, Public**
Const Opts:
General Info: **Commuter Bus, Commuter Train, Interstate Access**



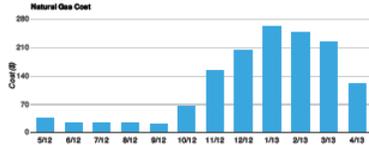
Energy Report



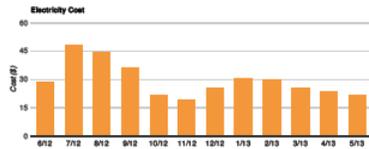
For: 3319 W Belden Ave, Chicago IL 60647

UNDERSTANDING YOUR HOME'S ENERGY USE

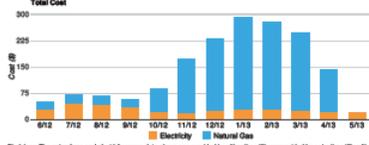
Natural Gas Use
Your Home = 1,309 therms
Cost
You spend \$1,309 per year on gas – primarily for heating your home. Gas = 79% of your energy budget



Electricity Use
Your Home = 3,574 kWh
Cost
You spend \$357 per year on electricity. Electricity = 21% of your energy budget



Total Energy Use
Your Home = \$1,666
Want to learn more about reducing energy at home? Visit MyHomeEQ.com for detailed recommendations and resources.



Disclaimer: The natural gas and electricity usage data shown was provided by either the utility account holder or by the utility with the account holder consent. This report should be used as a guide to understanding the probable and approximate energy usage for this home. In no way does this constitute a guarantee of future energy usage by the disclosing entity or MyHomeEQ.

I, _____ hereby acknowledge that I received a copy of this disclosure for the residential dwelling unit(s) described above. I acknowledge that the seller has stated that this property has been occupied for _____ months out of the most recent 12 months. Buyer Initial _____ Date Initialed _____

Date of Receipt: _____ Signature: _____

Seller, by providing utility account number(s), authorized MyHomeEQ to share the property's actual utility usage.

This form is designed for compliance with the Chapter 5-16 of the Municipal Code of Chicago pertaining to the disclosure of utility costs.



MyHomeEQ 212 W North Avenue Chicago IL 60647 (773) 249-2228 MyHomeEQ.com

UNDERSTANDING YOUR HOME'S ENERGY USE

Natural Gas Use

Your Home = 1,309 therms

Cost

You spend \$1,309 per year on gas – primarily for heating your home. Gas = 79% of your energy budget

Electricity Use

Your Home = 3,574 kWh

Cost

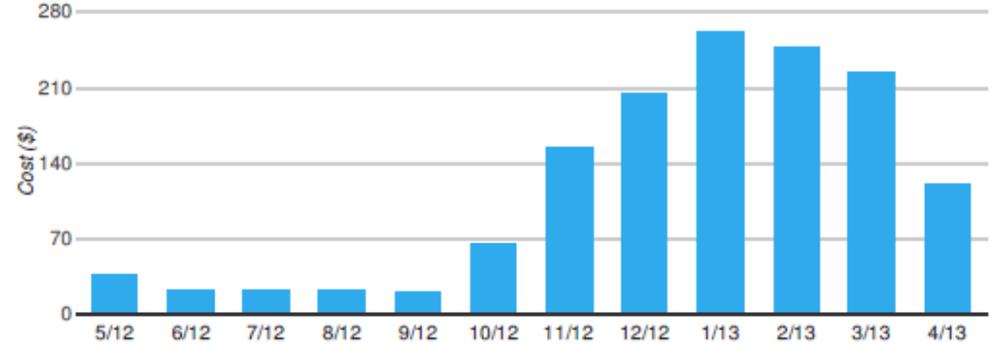
You spend \$357 per year on electricity. Electricity = 21% of your energy budget

Total Energy Use

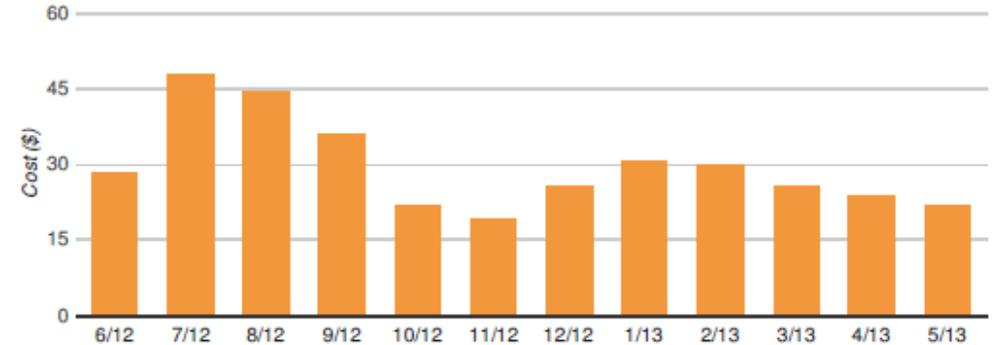
Your Home = \$1,666

Want to learn more about reducing energy at home? Visit MyHomeEQ.com for detailed recommendations and resources.

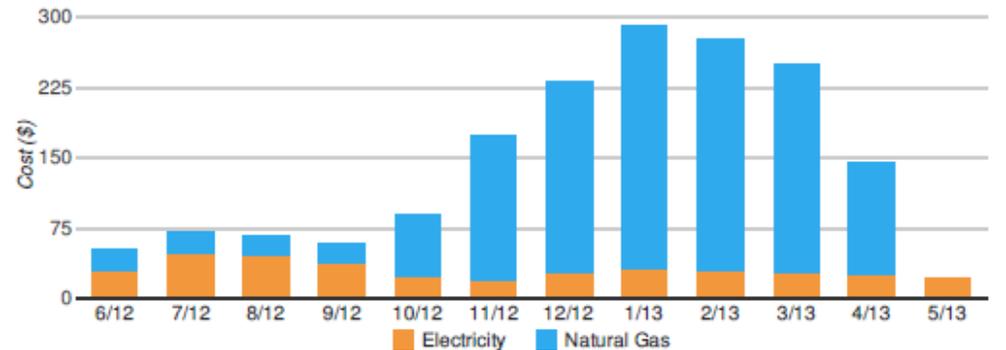
Natural Gas Cost



Electricity Cost



Total Cost



Survey to connectMLS Members

What do connectMLS users
think of Energy eCompliance?



The Disconnect

- 76% - Fields available that display residential energy costs
- 60% - The fields, when used correctly, *automatically populate* with energy cost data



Why Use Energy eCompliance

- Compliance
- Buyers ask for the information



The Agent Perspective

“The Energy Disclosure Fields are very helpful. This was a VERY GOOD innovation.”

“It is here to stay. We need to be ahead of it to help our clients.”

Increasing Usage

- Education Materials
- Outreach *with* MRED
- Point of use changes

The screenshot shows the Elevate Energy website. The header includes the Elevate Energy logo with the tagline 'Smarter energy use for all' and social media icons for Facebook, Twitter, and LinkedIn. The navigation menu contains 'Programs', 'Who We Serve', 'Research', 'About', and 'Blog'. The main content area is titled 'Value for High Performance Homes' and features a search bar with the text 'Discover More...'. Below this, there is a section for 'Energy eCompliance' with the sub-heading 'What is Energy eCompliance?'. The text explains that Energy eCompliance is a tool within connectMLS (the Midwest real estate multiple listing service) that allows:

- Real estate agents to easily comply with the City of Chicago Energy Cost Disclosure Ordinance by automatically populating residential listings with utility data.
- Owners of energy efficient homes to highlight the monetary benefits of the upgrades they made.
- Potential buyers to have an integral piece of information regarding the total cost of home ownership early on in the buying process.

connectMLS is the only MLS in the country that has this tool.

Below the text is a 'Frequently Asked Questions' section with five expandable questions:

- ▲ What is Energy eCompliance?
- ▲ What are the benefits of using Energy eCompliance?
- ▲ How does a real estate agent use Energy eCompliance?
- ▲ How does Energy eCompliance work?
- ▲ What led to the creation of Energy eCompliance?
- ▲ Can I have someone come to my real estate office to talk about Energy eCompliance?

To the right of the text is a video player titled 'How to Use Energy eCompliance' showing a woman pointing at a screen. Below the video is a quote from Rebecca Jensen, President/CEO of Midwest Real Estate Data:

“Elevate Energy has been a valuable partner because they understand the needs of the real estate community. They excel at communicating these needs to the energy efficiency community so that both groups can work together most effectively. Thank you Elevate Energy!”

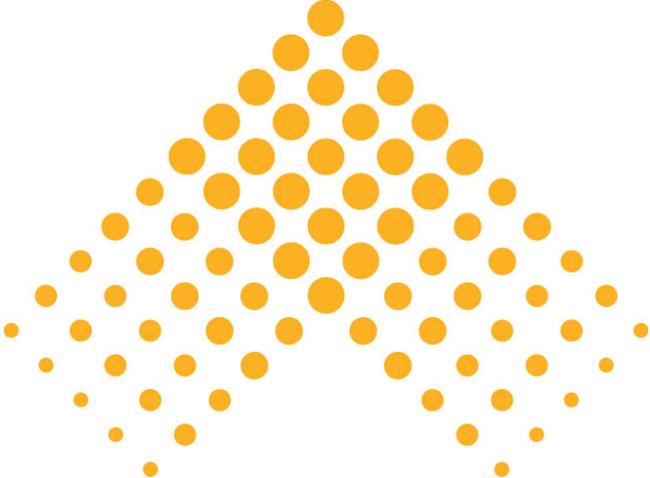
Rebecca Jensen, President/CEO, Midwest Real Estate Data

<https://www.elevateenergy.org/value-high-performance-homes-campaign/energy-ecompliance/>



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Elevate Energy
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ElevateEnergy.org





City of Portland Home Energy Score

Better Buildings Summit 2018

All Roads Point to Home

Wendy Koelfgen

Portland Bureau of Planning and Sustainability



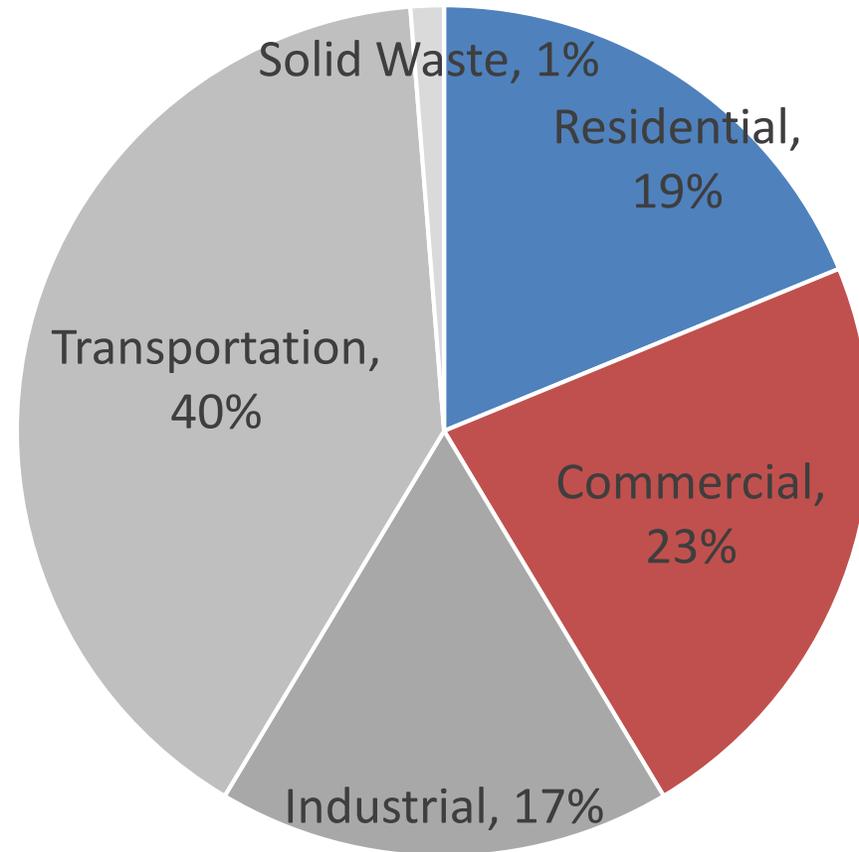
Real Estate
Industry

Energy
Efficiency

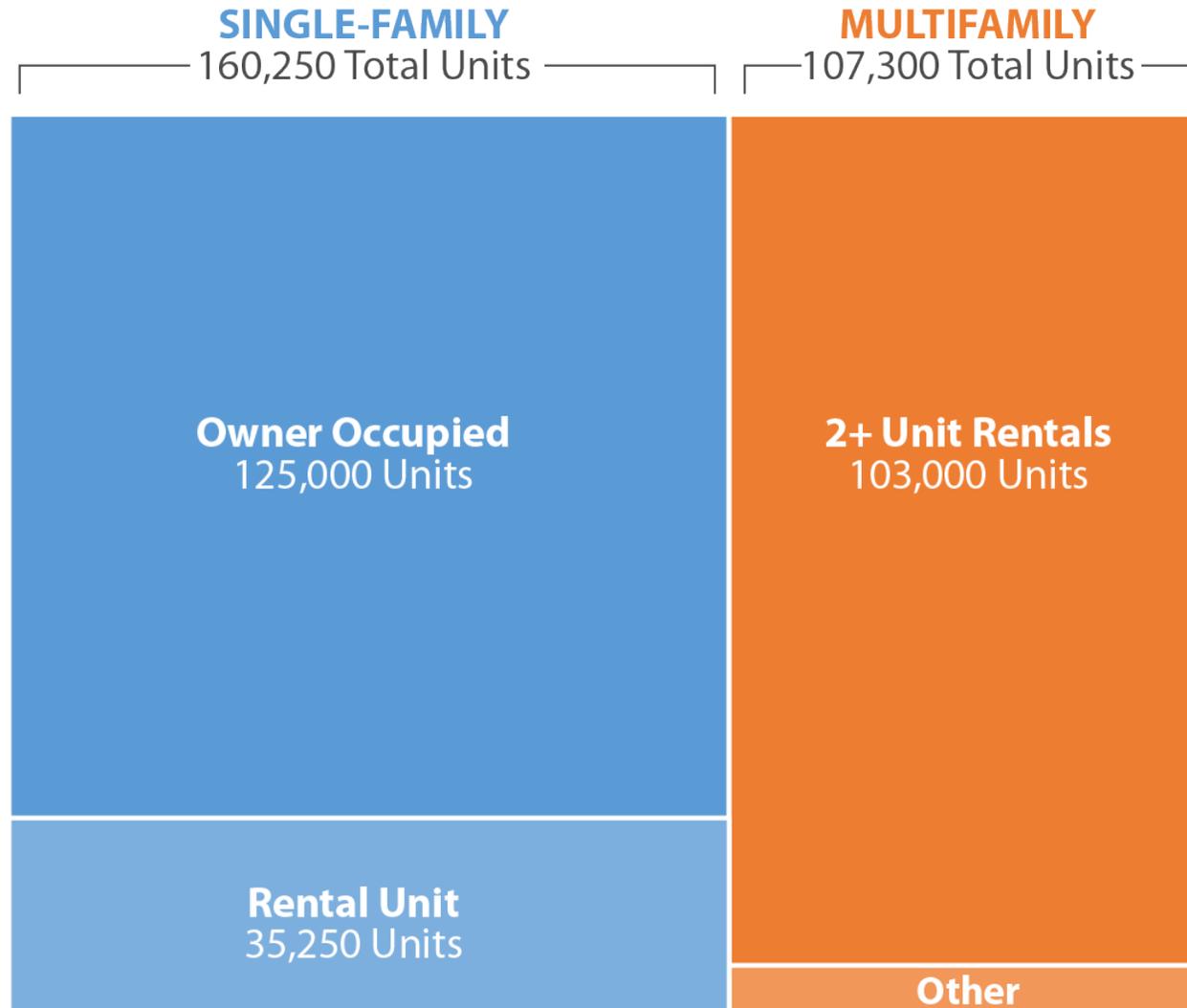


Carbon Emissions by Sector

(for Multnomah County, 2014)



Portland Housing Units



Climate Action Plan Priority

Action 1B

Require **energy performance ratings** for all homes so that owners, tenants and prospective buyers **can make informed decisions** about energy costs and carbon emissions



Policy Development

- Real estate industry policy cons:
 - Makes housing even less affordable
 - Unfairly impacts low income homeowners with sub-standard homes
 - Pointless without mandatory upgrades
 - Only addresses a small % of houses
 - Punishes those selling older homes or buying fixers



Benefits of a Home Energy Score program

- Sellers can highlight efficiency upgrades
- Sellers are encouraged to make upgrades
- Buyers can make informed decisions regarding costs of operating a home
- Buyers gain access to mortgage lending products with FHA and Fannie Mae
- All of which leads to reduced carbon emissions

How does it work

Information disclosed

- Home energy report and Home Energy Score

Regulated party

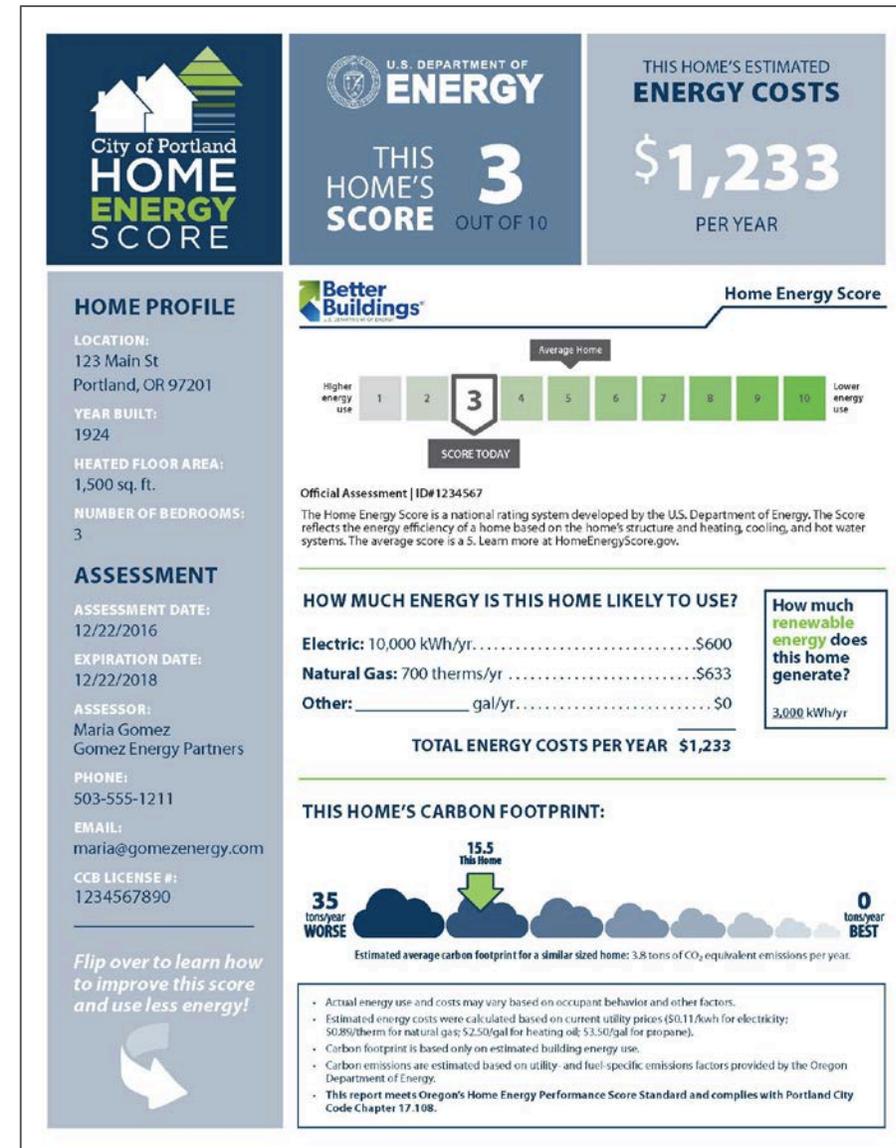
- Seller or homebuilder

Time of disclosure

- At or before listing

Recipient of disclosure

- Real-estate listings, prospective buyers at open house



Green Building Registry™



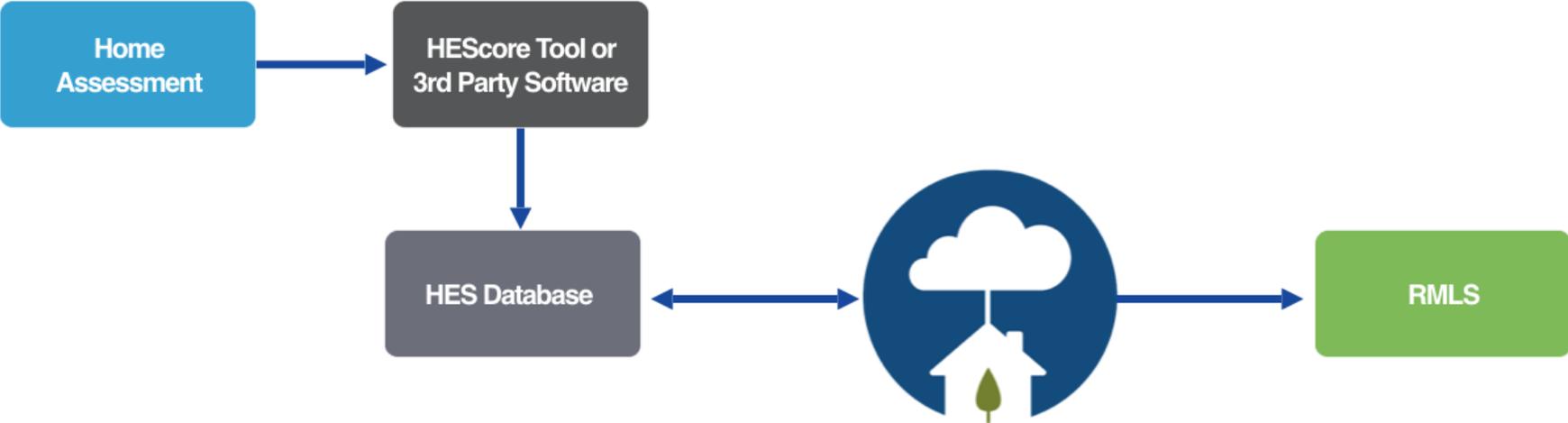
Search for City of Portland Home Energy Reports

Enter A City of Portland Street Address & Zip Code

Make sure you include the whole street address (SW, NW, CT, ST, etc.)

SEARCH

[About](#)



Green Building Registry

- Local Scorecard Generator
- Database (SEED)
- Conduit to RMLS

RMLS Auto-population



[Click here to view more photos](#)

Price: 679,000
Beds: 2
Baths: 1
County: Multnomah
Style: COLONIL / DTCHCOL
Year Built: 1924 / REMOD
Status: ACT
SQFT: 1982

ML#: 18108125
Area: Portland Northeast
Elem School: Alameda
Middle School: Beaumont
High School: Grant
Short Sale Y/N: NO
Bank Owned/REO Y/N: NO
Waterfront:
Body of Water:
Tax/Year: \$6,640.22

Prop Type: DETACHD
Nbrhd/Bldg: ALAMEDA
Levels: 3
Garage: 0
Roof:
Exterior Desc: ALUM
MstBdrm Level: U
Fireplaces:
Bsmt/Fnd: FULLBAS
View:

Acres: 0.11
Lot Size: 3K-4,999SF
Lot Dim:
Lot Desc:
Heat/Fuel: FOR-AIR / GAS
Cool: CENTAIR
Water/Sewer: PUBLICWTR / PUBLICSWR
Hot Water: GAS
Zoning:

REMARKS: [Video/Virtual Tour #1](#) [Video/Virtual Tour #2](#)

Alameda Dutch Colonial on name brand street awaits! Perched high above the street this classic Dutch Colonial boasts large well proportioned rooms, high ceilings and gorgeous period finishes. Recently updated kitchen exudes period appropriate subway tile & wood grain finishes. High ceilings, french doors and the best schools are all here!! The incredible deep backyard and private spaces are an additional perk of this truly special home! Home Energy Score:3.00 HES report at <https://api.greenbuildingregistry.com/report/hes/OR10064898-20180719>

REDFIN City, Address, School, Agent, ZIP

834 N Webster St
Portland, OR 97217

\$389,900 Price
4 Beds 2 Baths 1,292 sqft
Built: 1922 Lot Size: 4,791 Sq. Ft. On Redfin: 52 r



Buy Rent Sell

Portland OR

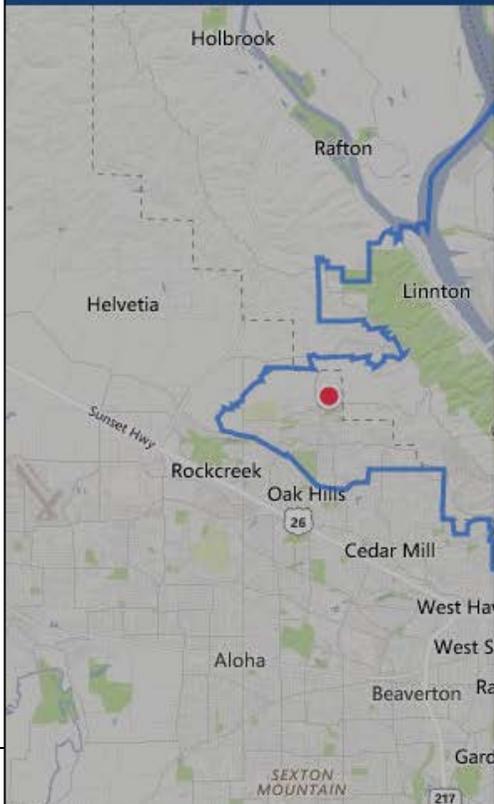
CONTACT AGENT

SAVE

SHARE

MORE

Don't miss out!
New homes are getting added all the



834 N Webster St Portland, OR 97217

4 beds · 2 baths · 1,292 sqft

FOR SALE
\$389,900

Zestimate: \$454,400

EST. MORTGAGE
\$1,770/mo

Get pre-qualified

Old PDX style home, in central Humboldt nbhd. Freshly painted w inviting front porch. Living room features archways & seating alcove, opens to kitchen w eating area, all appliances. Upstairs has loft w 4th bedroom. Extra-long driveway to detached garage w enough room for RV behind the fence, also a large, fenced backyard. This home is ideally located w great commuting options, nearby MAX , easy I-5 access, Walk Score 89, Bike Score 87! [Home Energy Score = 2. HES Report at <https://api.greenbuildingregistry.com/report/hes/OR10033598-20180810>]

Where's the report?

Area: Portland West, Raleigh Hills
Elem School: Ainsworth
Middle School: West Sylvan
High School: Lincoln
Short Sale Y/N: NO
Bank Owned/REO Y/N: NO
Waterfront:
Body of Water:
Tax/Year: \$15,577.83

Nbrhd/Bldg:
Levels: 3
Garage: 2 / DETACHD
Roof: COMP
Exterior Desc: CEDAR
MstBdrm Level: L
Fireplaces: 2 / GAS / WOOD
Bsmt/Fnd: DIRT / PARTBAS / UNFIN
View: CITY / MNTAIN / RIVER

Lot Size: 5K-6,999SF
Lot Dim: Irregular
Lot Desc: SLOPED, TERRACD, TREES
Heat/Fuel: FOR-95+ / GAS
Cool: CENTAIR
Water/Sewer: PUBLICWTR / PUBLICSWR
Hot Water: GAS
Zoning: R10

REMARKS: [Video/Virtual Tour #1](#) [Video/Virtual Tour #2](#)

Nestled in the treetops of Portland Heights, live/work in this unique hillside oasis that boasts amazing city, mountain & river views. A custom built home w/quality construction & a foundation w/integrity. Newer roof, AC/furnace & water heater. Enjoy easy access to downtown or relax & soak up the skyline from decking & balconies for outdoor entertaining with southern exposure. Art studio/office space w/lookout could be converted to ADU. Home Energy Score:7.00

FEATURES:

Dining Room: FNCH-DR / HARDWOD

Family Room:

Living Room: FIREPL / HARDWOD / WW-CARP

Kitchen: BI-MICO / BI-OVEN / COOKTOP / DISPOSL / GASAPPL / TILE

Interior: HARDWOD / HI-CEIL / JET-TUB / LAUNDRY / TILE-FL / VAULTED / WASHDRY / WOODFLR / WW-CARP

Exterior: COVDECK / DECK / GARDEN / PORCH / SHOP

Accessibility:

Green Verification Type: HES

Energy Efficiency Features:

FAQs

- Shelf life?
 - 8 years for onsite assessment.
 - 2 years for energy rates and carbon factors.
- How long will it take to complete a Home Energy Assessment?
 - ~45 minutes in the home.
 - 1-1 ½ hours including data entry.
- What's the cost?
 - Market-driven, expected range \$150-250.

Program Stats

- Authorized Home Energy Assessors: 100+
- Homes scored: 6000+
- Program Compliance: ~55-75%
- Compliance after “enforcement”: 80%



Q1 Program Stats

Score today:

3

Score with improvements*:

7

Estimated energy savings with improvements:

\$500

Estimated carbon reduction with improvements:

27%

TACKLE ENERGY WASTE TODAY!
 Enjoy the rewards of a comfortable, energy efficient home that saves you money.

- Get your home energy assessment. Done!
- Choose energy improvements from the list of recommendations below.
 Need help deciding what to do first? Non-profit Enhabit offers free 15-minute phone consults with expert home advisors. Call 855-870-0049.
- Select a contractor (or two, for comparison) and obtain bids.
 Checkout www.energytrust.org/findacontractor or call toll free 1-866-368-7878.
- Explore financing options at www.enhabit.org or www.energytrust.org.

*** PRACTICAL ENERGY IMPROVEMENTS | COMPLETE NOW OR LATER**

To achieve the "score with improvements," all recommended improvements listed below must be completed. Improvements all have a simple payback of ten years or less and may be eligible for mortgage financing. For a more detailed explanation of costs and payback, please get a bid from a contractor.

FEATURE	TODAY'S CONDITION	RECOMMENDED IMPROVEMENTS
Basement wall insulation	No insulation	Insulate to R15
Attic insulation	No insulation	Insulate to R49
Foundation wall insulation	No insulation	Insulate to R11
Wall insulation	No insulation	Insulate to R15
Envelope/Air Sealing	Not professionally air sealed	Seal the gaps and cracks that leak air into your home
Duct insulation	R3	Insulate to R6
Duct sealing	45% leakage	Reduce leakage to 10% of total airflow
Floor insulation	R5	Insulate to R38
Gas furnace	78% AFUE	Upgrade to ENERGY STAR® 95% AFUE
Skylights	Single-paneled	Replace with ENERGY STAR® (double-pane solar-control low-E argon gas wood frame)
Water heater	Standard electric tank	Upgrade to ENERGY STAR® (heat pump, EF 2.76)
Windows	Single-paneled aluminum	Replace with ENERGY STAR® (double-pane solar-control low-E argon gas wood frame)

YOU CAN DO IT YOURSELF!

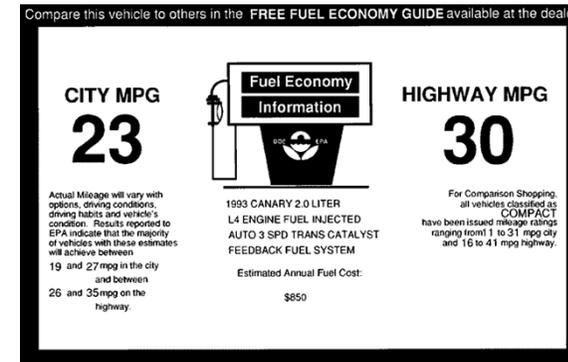
Looking for low-cost ways to cut energy waste, boost your comfort and lower your energy bills? Visit the resources below to learn about easy changes you can make today:

www.energytrust.org/tips and www.communityenergyproject.org/services

- Average Base Score: 4.5
- Average Score w/upgrades: 7.2
- Average \$ savings: \$306
- Average kWh savings: 1609
- Average therm savings: 113

Next Steps for 2018 and beyond

- Improve brand recognition
 - Improve the score appearance in listings
 - Increase marketing
- Improve consistency
 - Within RMLS
 - Across all listing services
- Enforce the requirement
 - Relationship with RMLS





Thank you!

Any questions?

Program Website:

www.pdxhes.com

Email:

HEInfo@portlandoregon.gov

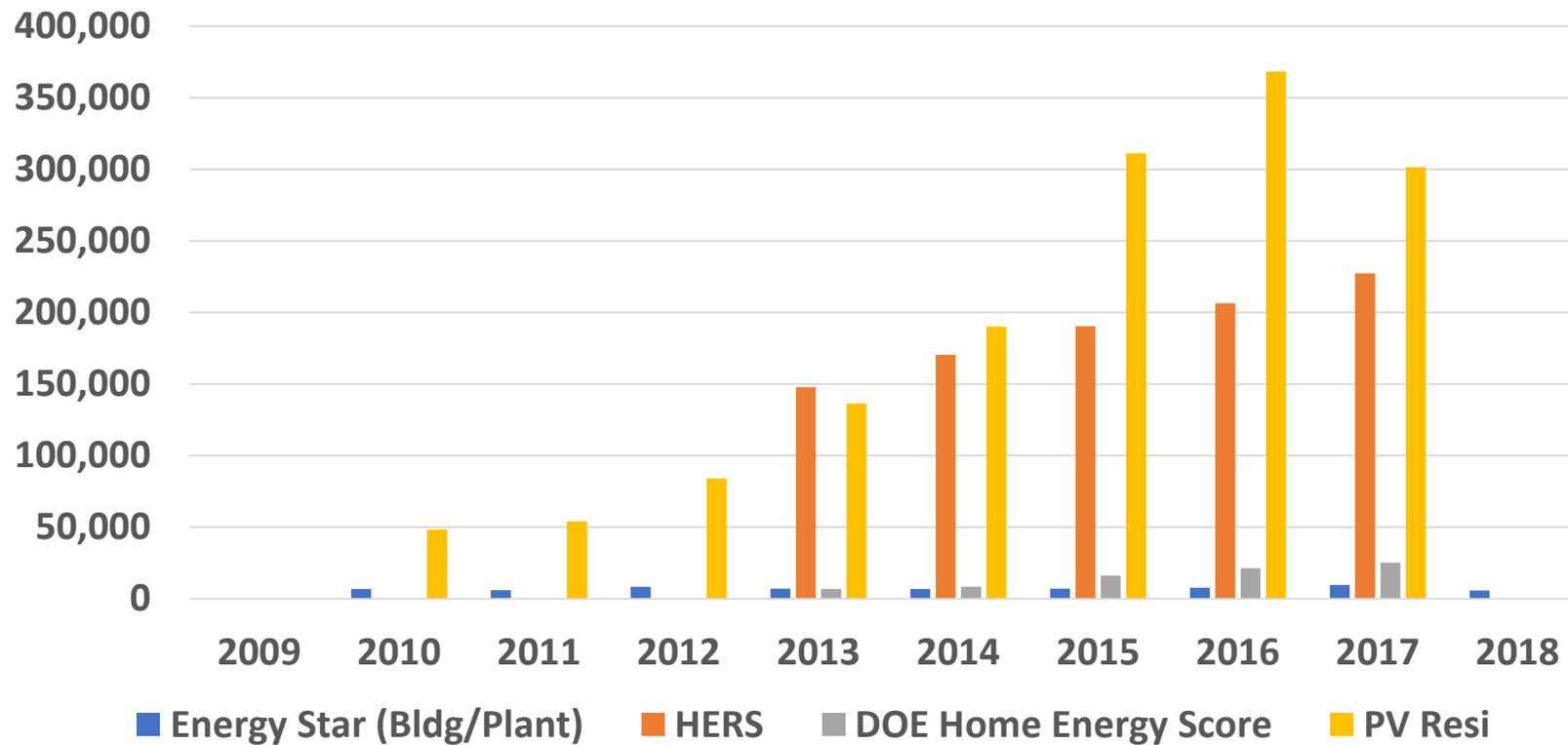
Wendy.koelfgen@portlandoregon.gov

NEREN® MLS

- Serving over 10,000 users
- Primary MLS for all of NH & VT with members in listings in ME and MA
- Ability to service all of New England and NY Border Counties
- Greening the MLS since 2008
- PV Learning Network
- HELIX Advisory Committee

Why it Matters

Growing Adoption



- *PV Resi (cumulative pre-2010). The citation for these data is: Solar Energy Industries Association (SEIA) and GTM Research (GTM) "U.S. Solar Market Insight - 2017 Year in Review"
- Energy Star 2009 represents cumulative certifications up to 2009

Industry Collaboration



- Homeowners, buyers and renters want to live in homes that are comfortable, safe, and affordable
- Listing home energy information in a standardized way is a first step to better data supporting properties
- Verified energy information elevates homebuyer confidence

(Results from NAR Research, including *REALTORS® & Sustainability Report, Home Buyers and Seller Report, Generational Trends Report*)

2018 NAR Strategic Priorities

Take the management of real estate data to the next level

- Competition and the demand for more data and analysis is forcing the management of real estate data to evolve
- We must look at all the options - changing the business model, partnering, consolidating, etc.
- Continue to educate the REALTOR® on how to interpret and communicate the data to strengthen the value proposition of the REALTOR® with consumers

Ensure the role of the REALTOR® is essential to the consumer

- Consumers need a trusted advisor even as technology gives them access to more information
- REALTORS® must be relevant before, during and after the transaction

2018 NAR Strategic Priorities

Define measurable increases in professionalism

- Define what can be measured in increasing professionalism
- Further separate the REALTOR® from the real estate licensee in the consumer's mind
- Recognize those who seek out education and get involved in the industry

Increase influence in an uncertain legislative, regulatory and political environment

- Get more members to understand the connection between getting involved in advocacy and sustaining their business
- Further tap the power of the consumer in advocacy efforts
- Start influencing other issues that impact real estate, in areas like technology
- Partner more with other organizations to broaden influence
- Continue our path of increasing homeownership percentages, preserving the tax incentives on real estate and preserving the federal guarantee on mortgages

Take the management of real estate data to the next level

- Competition and the demand for more data and analysis is forcing the management of real estate data to evolve
- We must look at all the options - changing the business model, partnering, consolidating, etc.
- Continue to educate the REALTOR® on how to interpret and communicate the data to strengthen the value proposition of the REALTOR® with consumers

Ensure the role of the REALTOR® is essential to the consumer

- Consumers need a trusted advisor even as technology gives them access to more information
- REALTORS® must be relevant before, during and after the transaction

Overarching concerns that exist are the ongoing struggle with governance and the sustainability of the association, real estate and our communities.

Data Standardization

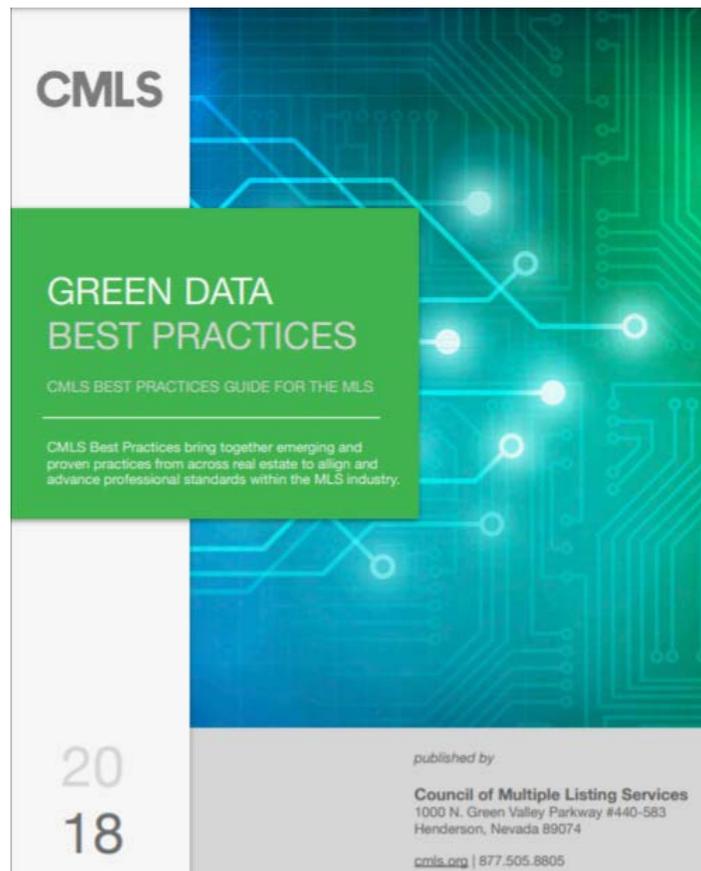


- 600+ MLSs have Data Dictionary Certification
- 520+ MLSs are certified at Silver or higher
 - Green fields are part of Silver certification
 - No requirement to have Green fields to obtain certification
 - Top 100 MLSs in size have at least some of the green fields

These can be found at:

<https://www.councilofmls.org/research>

- Green Data Best Practices
- Green Sheet: Automated Efficiency Models (AVM)
- Green Sheet: Solar Power Fields
- Quick Start: Guide to Green MLS Fields
- Home Energy Information Guide



Just Getting Started

Getting started is easier than you think. Start with the nine existing fields and lookup values. Most MLSs already have a foundation for adding these fields. They are the same fields used for common features like doors and appliances. In many cases, you'll only have to change traditional lookup values to include environmentally friendly values, which are also known as home performance indicators.

Nine Existing Fields and Lookup Values

Appliances

- ENERGY STAR Qualified Appliances
- ENERGY STAR Qualified Dishwasher
- ENERGY STAR Qualified Dryer
- ENERGY STAR Qualified Freezer
- ENERGY STAR Qualified Refrigerator
- ENERGY STAR Qualified Washer
- ENERGY STAR Qualified Water Heater
- Instant Hot Water
- Solar Hot Water
- Tankless Water Heater
- Vented Exhaust Fan
- Water Purifier
- Water Purifier Owned
- Water Purifier Rent/Leased

Construction Materials

- Attic/Crawl Hatchway(s) Insulated
- Batts Insulation
- Blown-In Insulation
- Cement Siding
- Ducts Professionally Air Sealed
- Exterior Duct Work is Insulated
- Foam Insulation
- ICAT Recessed Lighting
- ICFs (Insulated Concrete Forms)
- Low VOC Insulation
- Radian Barrier
- Rammed Earth
- Recycled/Bio-Based Insulation
- Spray Foam Insulation
- Trombe Wall

Cooling

- Attic Fan
- Ceiling Fan(s)
- Ductless (Synonym: ductless mini-split)
- ENERGY STAR Qualified Equipment
- Geothermal (Synonym: ground-source heat pump or water-source heat pump)
- Heat Pump (Synonym: Air-source heat pump)
- Humidity Control
- Whole House Fan
- Zoned

Current Financing

- Leased Renewables
- Property-Assessed Clean Energy
- Power Purchase Agreement

Door Features

- ENERGY STAR Qualified Doors
- Storm Door(s)

Electric

- Energy Storage Device
- Net Meter
- Photovoltaics Seller Owned
- Photovoltaics Third-Party Owned
- Pre-Wired for Renewables
- Ready for Renewables
- Wind Turbine Seller Owned
- Wind Turbine Third-Party Owned

Heating

- Ductless (Synonym: ductless mini-split)
- ENERGY STAR Qualified Equipment
- ENERGY STAR or ACCA RSI Qualified Installation
- Geothermal (Synonym: ground-source heat pump or water-source heat pump)
- Heat Pump (Synonym: air-source heat pump)
- Humidity Control
- Solar Radiant Heat Flooring
- Solar Heat Baseboard(s)
- Zoned

Other Equipment

- Air Purifier
- Dehumidifier
- Irrigation Equipment

Window Features

- ENERGY STAR Qualified Windows
- Insulated Windows
- Low Emissivity Windows
- Plantation Shutters
- Screens
- Shutters
- Skylight(s)
- Solar Screens
- Storm Window(s)
- Triple Pane Windows

Quick Start Guide MLS Green Fields

A CMLS Quick Start Guide To MLS Green Fields



published by
Council of Multiple Listing Services
1000 N. Green Valley Parkway #440-583
Henderson, NV 89074

NEREN® MLS Adoption Process

2009

- Field Evaluation
- Task Force
- Industry Review
- Added 15 Building Certifications & Field Selections

2010

- Added HERS Index Score to MLS, Data feeds, Public-facing website neren.com
- Cleaned up Building Certifications
- HERS Database (VT) added to MLS Software

2015/2016

- Task Force
- Industry Review
- Data Standards (RESO)
- Added RESO Green Fields, Solar PV, 70+ new Field Selections

NEREN® MLS Adoption Process

2017

- Added Power Production Fields
- Added Green Marketing Fields
- Created new 'buckets' in Listing Maintenance (better organize fields)
- Oct 3 – Launched PV Auto-Population Pilot program (VT data)

2018

Plans:

- Launch PV Auto-population with MA data (nearly 70k records)
- Beta test HELIX (Home Energy Label Information Exchange)

NEREN® MLS Resources

MLS FOLDER

 **Green and Energy Efficient Fields - 8 Files**
Green and Energy Efficient Resources

 **HERS Database - 1 File**
HERS Database

 **Paragon Listing Input Forms - 9 Files**
Input Forms

 **Paragon Sample Docs - 7 Files**
Click the edit icon to add a description

DESCRIPTION

[Power Production Fields in Paragon - Definitions](#)

[Green Marketing Fields in Paragon - Definitions](#)

[Press Release Announcing VT Solar Auto-Pop](#)

[AI Institute's Commercial Green and Energy Efficient Addendum](#)

[Home Energy Information Guide](#)

[AI Institute's New \(5/16/17\) Residential Green and Energy Efficient Addendum](#)

[Homeowners & Contractors - Documenting and Appraising Green & Energy Efficient Homes](#)

[Paragon Green Program Fields](#)

DOC NAME

[HERS Efficiency Report Vermont - 20180116.pdf](#)

NEREN® MLS Listing Input Forms

Green Mktg & 3rd Party Ver.

Green Energy Efficient:

Appliances	Exposure/Shade	Insulation	Thermostat
Constructions	HVAC	Lighting	Water heater
Doors	Incentives	Roof	Windows

Green Energy Generation: Solar / Wind

Green Indoor Air Quality: Contaminant Control / Integrated Pest Management / Moisture Control / Ventilation

Green H2O (Water) Sustainability:

Conserving Methods	Recyclable Materials	Renewable Materials
Onsite Recycling Center	Regionally-Sourced Materials	Salvaged Materials

Green H2O (Water) Conservation:

Gray Water System	Low-Flow Fixtures	Water-Smart Landscaping
Green Infrastructure	Water Recycling	

Green Verification Program (3 sets, if needed):

Blower Door Test	Indoor airPLUS	Passive House (PHIUS+)
ENERGY STAR Certified Homes	LEED for Homes	Residential New Construction Svcs
EnerPhit	NGBS New Construction	Vermont Home Energy Profile
HERS	NGBS Small Project Remodel	WaterSense
Home Energy Score	NGBS Whole-Home Remodel	Zero Energy Ready Home (DOE Challenge Home)
Home Performance with ENERGY STAR	OTHER	

NEREN® MLS Listing Input Forms

Power Production

Power Production Type (2 sets, if needed): Photovoltaics / Wind Mount Location: Ground / Roof
Mount Type: Fixed Rack / Pole / Tracker Power Production Size: _____
Power Production Annual: _____ Power Production Annual Status: Actual / Estimated / Partially Estimated
Power Production Year Install: _____
Power Production Verification Source:

Administrator	Contractor / Installer	Program Sponsor	See Remarks
Assessor	Other	Program Verifier	
Builder	Owner	Public Records	

NEREN® MLS Listing Input

LISTING

Save Tax Autofill Reset Fields Required Only Open All Close All

Features

Green Mktg & 3rd Party Ver.

Lot

Rooms

Services

Power Production

Compensation

Remarks/Disclosures

Occupant/Showing Information

NEREN® MLS Listing Input - Features

- Appliances: Energy Star options
- Construction: Earth Berm, Insulated Concrete Forms, etc.
- Equipment: Energy Recovery Ventilator Unit, Indoor Air PLUS pkg, Irrigation-Rain Barrels
- Interior Features: Energy rated options
- Exterior Features: Energy rated options
- Heating: Programmable Thermostat, Passive Solar, etc.

NEREN® MLS Listing Input - Features

EL-Electric Features Save Cancel

[Check All](#) [Uncheck All](#)

- EL12 - Energy Storage Device
- EL13 - Fuses
- EL14 - Generator
- EL15 - Generator Ready
- EL16 - Net Meter
- EL17 - None
- EL18 - Off Grid
- EL19 - Off Peak
- EL20 - On Adjacent Property
- EL21 - On-Site
- EL22 - Other
- EL23 - Pre-Wired for Renewables
- EL24 - Ready for Renewables
- EL28 - Solar PV Seller Owned
- EL29 - Solar PV Third-Party Owne
- EL30 - Underground
- EL31 - Wind Turbine Seller Owned
- EL32 - Wind Turbine Third-Party

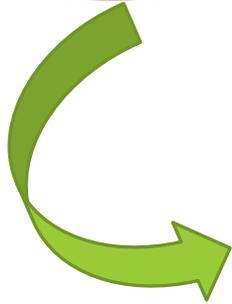
FK-Financing-Current Features Save Cancel

[Check All](#) [Uncheck All](#)

- FK1 - Assumable
- FK2 - Contract
- FK3 - Conventional
- FK4 - FHA
- FK5 - FHA 203(b)
- FK6 - FHA 203(k)
- FK7 - Leased Renewables
- FK8 - NHHFA
- FK9 - None
- FK10 - Other
- FK11 - Power Purchase Agreement
- FK12 - Private
- FK13 - Prop-Assessed CleanEnergy
- FK14 - Rural Development
- FK15 - USDA
- FK16 - VA
- FK17 - VTHFA

NEREN® MLS VT PV Auto-Pop Pilot

?	SPAN#/Tax ID	SPAN#	Address	City	State	Zip Code	County
1	(163) HV1635	519-163-11505	1635 Hillview Rd	Richmond	VT	05477	Chittenden



?	SPAN#/Tax ID	SPAN#	Address	City	State	Zip Code	County
1	(163) HV1635	519-163-11505	1635 Hillview Rd	Richmond	VT	05477	Chittenden

Vermont Tax Report

Tax & Legal Info			
SPAN#	519-163-11505	SPAN#/Tax ID	(163) HV1635
Annual Tax	0	Tax Year	0
Total Assessment	409600	Assessment Year	2015
Legal Description	DWEL	Zoning	
Address Info			
Address	1635 Hillview Rd	Condo Unit #	
City	Richmond	State	VT
Zip Code	05477	Zip Plus 4	9156
County	Chittenden	Subdivision	
Property Characteristics			
Full Baths		Half Baths	
Baths		Bedrooms	
Fireplaces		Stories	
Building SqFt	0	Year Built	0
Lot Size		Lot SqFt	457380
Acreage	10.50	Number of Buildings	0
Number of Units			
Power Production			
Mount Location	Ground	Mount Type	Tracker
Power Production Size	4.20	Power Production Annual	5816
Power Production	Public Records	Power Production Type	Photovoltaics
Verification Source			

NEREN® MLS VT PV Auto-Pop Pilot

Load Tax Data

Save Cancel

Include	#	Description	Values
<input checked="" type="checkbox"/>	(142)	SPAN#	51916311505
<input checked="" type="checkbox"/>	(245)	Acres	10.500000
<input type="checkbox"/>	(152)	TaxGrosAmt	0.00
<input checked="" type="checkbox"/>	(150)	AssmntYr	2015
<input type="checkbox"/>	(315)	BedsTot	0
<input type="checkbox"/>	(279)	SqftApxTI	0
<input type="checkbox"/>	(94)	UnitLot#	
<input type="checkbox"/>	(393)	BathsFull	0
<input type="checkbox"/>	(394)	Baths1/2	0
<input checked="" type="checkbox"/>	(93)	Address	1635 Hillview Rd
<input type="checkbox"/>	(246)	LotSqft	0
<input checked="" type="checkbox"/>	(453)	Mount Loc	Ground
<input checked="" type="checkbox"/>	(487)	MountType	Tracker
<input checked="" type="checkbox"/>	(470)	PowerProdA	5816.000000
<input checked="" type="checkbox"/>	(472)	PowerPSiz	4.20
<input checked="" type="checkbox"/>	(452)	Power Prod	Photovoltaics
<input checked="" type="checkbox"/>	(490)	PowrPVSrc	Public Records
<input checked="" type="checkbox"/>	(95)	City	Richmond
<input checked="" type="checkbox"/>	(88)	County	Chittenden



Power Production

(452)	Power Production Type	Photovoltaics ▼
(453)	Mount Location	Ground ▼
(487)	Mount Type	Tracker ▼
(472)	Power Production Size	4.20
(470)	Power Production Annual	5816.000000
(454)	Power Production Annual Status	▼
(458)	Power Production Year Install	
(490)	Power Production Verification Source	Public Records ▼

MLS Search

Customize Search Templates

- Power Production - if looking for presence of Photovoltaics or wind
- Third Party Verifications - if looking for a specific building certification, or check them all for presence of. Be sure to search all 3!
- Features Fields search

Customize Spreadsheet View

- Power Production
- Third Party Verifications - if looking for a specific building certification, or check them all for presence of. Be sure to add all 3!

NEREN® MLS Search - Any Property Class

Fields

Apply Cancel

Find:
green

Class:
Residential

Containers:
Primary Criteria

Available Fields	
<input type="checkbox"/>	Green Verification Body
<input type="checkbox"/>	Green Verification Metric
<input type="checkbox"/>	Green Verification New Construction
<input type="checkbox"/>	Green Verification Rating
<input type="checkbox"/>	Green Verification Source
<input type="checkbox"/>	Green Verification Source 2
<input type="checkbox"/>	Green Verification Source 3
<input type="checkbox"/>	Green Verification Status
<input type="checkbox"/>	Green Verification URL
<input type="checkbox"/>	Green Verification Year
<input type="checkbox"/>	Green Verificatn Body 2
<input type="checkbox"/>	Green Verificatn Body 3

ADD →
← REMOVE
← REMOVE ALL
↑ MOVE UP
↓ MOVE DOWN

Selected Fields	
<input type="checkbox"/>	Lot Size Acres
<input type="checkbox"/>	Basement
<input type="checkbox"/>	Features
<input type="checkbox"/>	Development / Subdivision
<input type="checkbox"/>	Condo Name
<input type="checkbox"/>	Mobile Park Name
<input type="checkbox"/>	Listing Service
<input type="checkbox"/>	Foreclosed/Bank-Owned/REO
<input type="checkbox"/>	Short Sale
<input type="checkbox"/>	Seasonal
<input type="checkbox"/>	Power Production Type
<input type="checkbox"/>	Green Verification Progrm



Power Production Type

Save Cancel

Contains

Data	Description
<input type="checkbox"/> Photovolt	Photovoltaics
<input type="checkbox"/> Wind	Wind

Seasonal No Unknown Yes

Power Production Type Equals

Green Verification Program

- Blower Door Test
- ENERGY STAR Certified Homes
- EnerPhit
- HERS
- Home Energy Score
- Home Performance with ENERGY STAR
- Indoor airPLUS
- LEED for Homes
- NGBS New Construction
- NGBS Small Project Remodel
- NGBS Whole-Home Remodel
- OTHER
- Passive House (PHIUS+)
- Residential New Construction Services
- Vermont Home Energy Profile
- WaterSense
- Zero Energy Ready Home (DOE Challenge Home)

NEREN® MLS Property Reports

County	Date - MLS List	Price	Power Production	Power Production	Green Verification	Green Verificatn P	Green Verificatn P
VT-Chittenden	6/2/2017	\$5,000	Photovoltaics		Blower Door Test	Zero Energy Ready H	Zero Energy Ready H
VT-Chittenden	6/30/2017	\$370,000	Photovoltaics		HERS		
VT-Franklin	10/25/2017	\$395,000	Wind		Vermont Home Energ		
VT-Chittenden	6/27/2017	\$399,000	Photovoltaics		Vermont Home Energ		
NH-Hillsborough	10/12/2016	\$412,500	Photovoltaics		LEED for Homes		
VT-Chittenden	6/8/2017	\$449,900	Photovoltaics		OTHER		
VT-Chittenden	6/20/2017	\$900,000	Photovoltaics		ENERGY STAR Certifi		
VT-Chittenden	9/27/2017	\$1,038,000	Photovoltaics		ENERGY STAR Certifi	ENERGY STAR Certifi	ENERGY STAR Certifi

Page 1 of 1 BACK REPORTS

Available Reports Open All | Close All

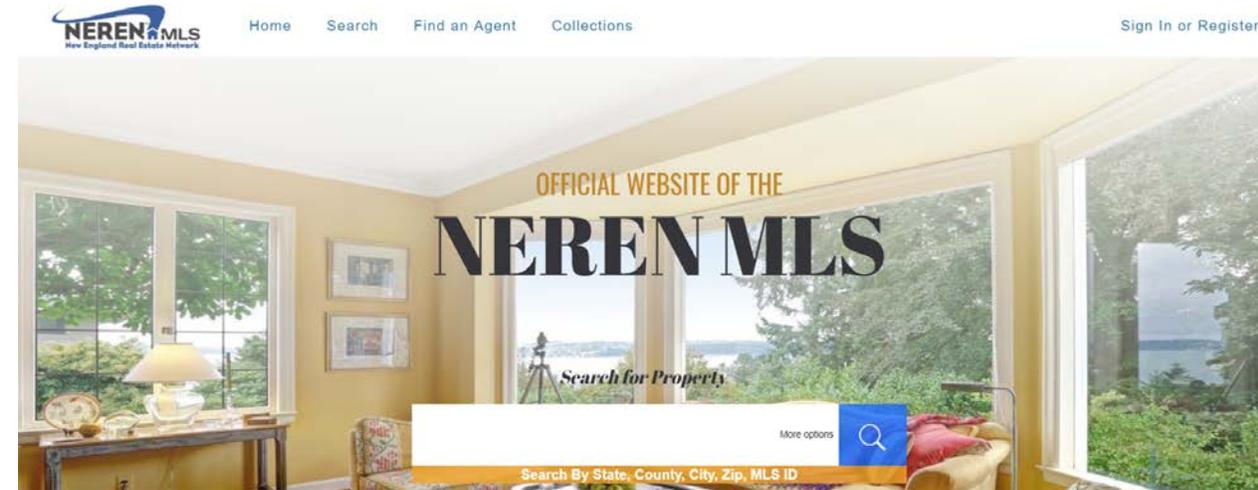
- AGNT 1PG Template
- AGNT 2PG G2
- AGNT 2PG RESI
- AGNT 2PG REST COLOR
- AGNT Green**
- AGNT 1PG Template
- Blue Flyer
- CUST 1PG G2
- CUST 1PG Template
- CUST 2PG G2
- CUST 2PG RESI
- CUST 2PG REST COLOR
- CUST Green**
- ECG Flyer
- Flyer
- Flyer - 1 Photo
- Green Flyer
- Photo Gallery

Green Verification Program OTHER
 Green Verification Body Passive House Institute Quality Approved
 Green Verification Status Preliminary
 Green Verification Year 2016
 Green Verification Rating Vermont High Performance Home
 Green Verification Metric 999z
 Green Verification Source Contractor/Installer
 Green Verification New Construction No
 Green Verification URL www.0123456789green.com
 Green Verificatn Program 2 LEED for Homes
 Green Verificatn Body 2 DOE
 Green Verificatn Status 2 Official
 Green Verificatn Year 2 2017
 Green Verificatn Rating 2 Certified
 Green Verificatn Metric 2 999z
 Green Verification Source 2 Program Sponsor
 Green Verificatn NewCon 2 Yes
 Green Verificatn URL 2 www.0123456789green.com
 Green Verificatn Program 3 ENERGY STAR Certified Homes
 Green Verificatn Body 3 EPA
 Green Verificatn Status 3 Preliminary
 Green Verificatn Year 3 2015
 Green Verificatn Rating 3 Vermont High Performance Home
 Green Verificatn Metric 3 999z
 Green Verification Source 3 See Remarks
 Green Verificatn NewCon 3 No
 Green Verificatn URL 3 www.0123456789green.com

Power Production Type Photovoltaics
 Mount Location Roof
 Mount Type Fixed Rack
 Power Production Size 123.56
 Power Production Annual 123.560000
 Power Production Annual Status Partially Estimated
 Power Production Year Install 2000
 Power Production Verification Source Builder
 Power Production Type 2 Wind
 Mount Location 2 Ground
 Mount Type 2 Pole
 Power Production Size 2 123.56
 Power Production Annual 2 123.560000
 Power Production Annual Status 2 Estimated
 Power Production Year Install 2 2010
 Power Production Verification Source 2 Contractor/Installer

Green Fields - Data Distribution

Data Authorizations		
(65)	Display Listing - Internet R	Yes ▼
(205)	Display Address - Internet R	Yes ▼
(48)	Realtor.com R	Yes ▼
(52)	Zillow Group R	Yes ▼
(448)	Homes.com R	Yes ▼
(456)	Homesnap.com	Yes ▼
(46)	RPR R	Yes ▼
(47)	ListHub R	Yes ▼
(67)	Allow Blogging R	Yes ▼
(204)	Allow AVM R	Yes ▼



Intra-Office
IDX
VOW
Specialty Views

NEREN® MLS Training

- MLS System Notices – New Fields
- Newsletter – Latest MLS Software Enhancements
- Blog – Archive
- Live (Classroom) Training / Member meetings
- Online Webinar – Specific to Green fields
- YouTube – Recorded Webinar/Tutorials (on demand)

NEREN® MLS - Next Steps

**Evaluate &
Improve**

**Local Green
Verification
Programs**

**Power
Production data
onto CRS reports**

**Power Production
data searchable in
CRS**

**NH, MA, ME, RI,
CT PV Data**

**HELIX Data
Auto-Population**