

New Subscriber Benefit

WEBINAR

Green Building Registry







Learning Objectives

- What is the Green Building Registry
- What is building performance data
- Why does it matter
- Auto-Populating Data into Listings
- How to use it as part of your business

New Subscriber Benefit – Building Performance Data from the Green Building Registry®



GBR Program Data Matrix

https://www.earthadvantage.org/ home-data/gbr-faq.html



DATA SOURCES & TYPES

PROGRAM	HISTORICAL TO	RESIDENTIAL	MULTIFAMILY	COMMERCIAL	UPDATE FREQUENCY
Built Green - Central Washington	2008 - Feb '21	х			Not Currently Updating
Built Green - Western Washington	2011	х	х		Monthly
Earth Advantage Home Certification	2008	х			Monthly
EarthCraft	2007	х			Monthly
ENERGY STAR Certified Building	1999		Х	х	Weekly
ENERGY STAR Certified New Construction	2011	х	х		Monthly
EPS	2014	х			Real-Time
Florida Green Building Coalition	2001	х	х	х	Annual
Florida Water Star	2006	х	х		Monthly
Green Built Homes	2005	х	х		Monthly
GreenPoint Rated	2012	х			Monthly
GreenPoint Rated - Multifamily	2021		х		Monthly
GreenStar Homes Certification	2009	х	х		As Available
HERS	Mid - 2012	Х	х		Monthly
Home Energy Score	Varies by Geography	×			Real - Time/Monthly
LEED (Commercial)	2004			х	Monthly
LEED for Homes	2009	х			Monthly
LEED for Homes - Multifamily	2012		х		Monthly
Missouri Home Energy Certification	2011	х			Monthly
NGBS (Nat'l Green Building Standard)	2016 - May '21	×			Not Currently Updating
Pearl Certification (State of MO only)	2022	х			As Available
Renewables	Varies by Geography	х			Real - Time/Monthly
Time of Sale Energy Score	2020	х			Daily

GBR Data

- ✓ Original Source Direct from the Program
- Trained & Certified third-party building science professionals
- Quality Assurance, Verified by Program
- Address Verification, Normalization
- ✓ Real Estate Standardized Data (RESO)
- Homeowner Reported
- ✓ Permission-Based

It's Good Data!



Currently, most homeowners, buyers, and renters have insufficient information about how their home uses energy and what factors contribute to poor energy performance, high energy costs, and high carbon emissions.

We can change that now...



Defining the Data



What is this 'Performance' Data?

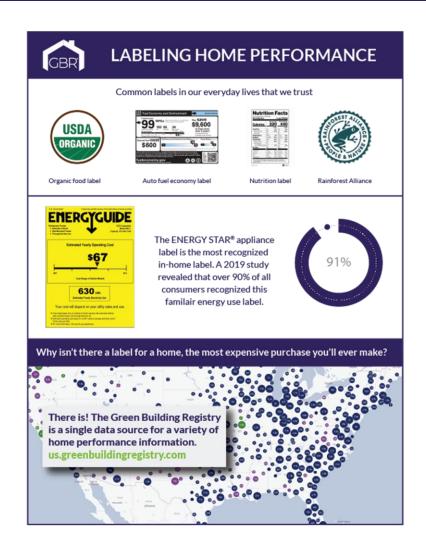
Home Inspection vs. Home Performance

- Home Inspection Condition & Safety
- Home Performance How all aspects of the home work together as one comprehensive system (energy efficiency lens)

Green Building Registry® - A new national database of thirdparty certified buildings & solar data:

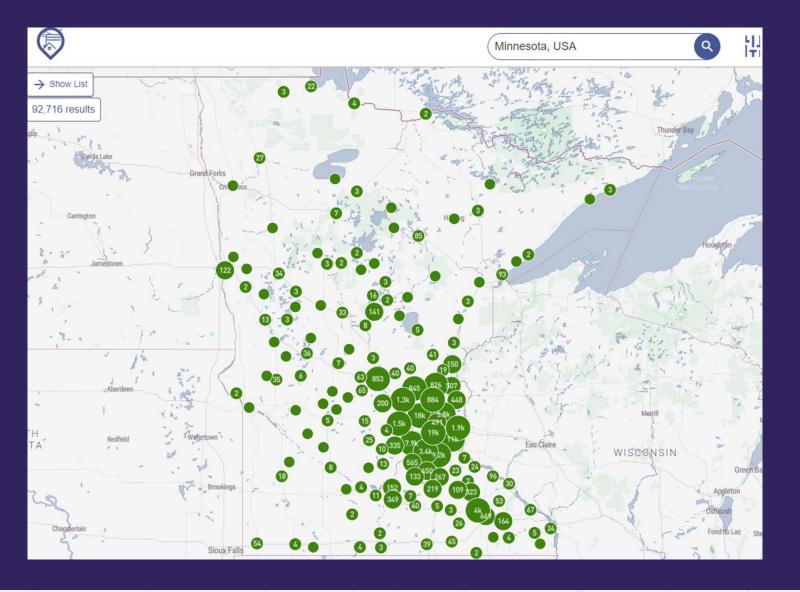
- Residential
- Multi family
- Commercial

Some solar data (regional)

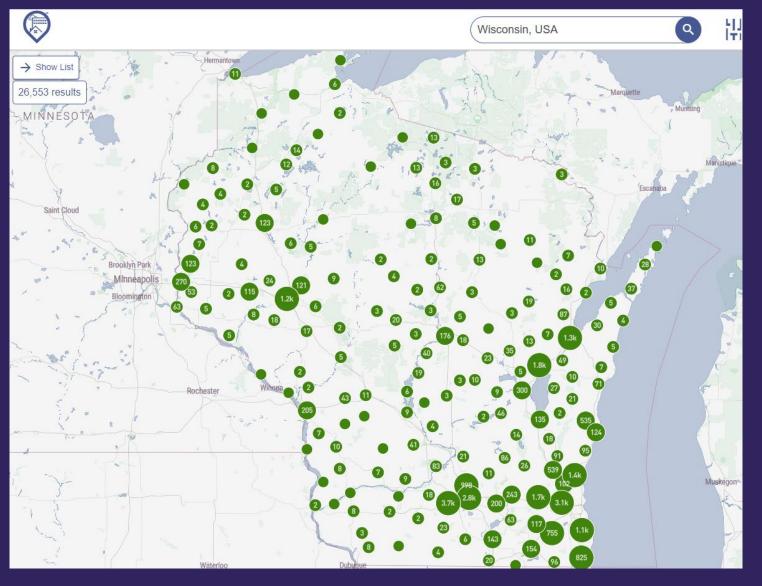


What Does This Data Mean?

- A home that is more energy efficient or higher performing provides improved comfort, safety, and lower utility bills for the occupants.
- Streamlined Marketing: Utilizing certification data enhances property marketing, enabling real estate professionals to effectively communicate unique selling points.
- Transparency Builds Trust: By including certification data, real estate professionals foster transparency, building trust with both sellers and buyers in every transaction.

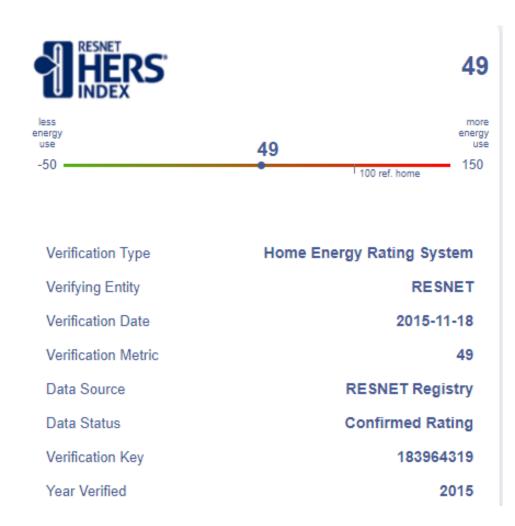


		ENERGY STAR						National Green		Zero Energy	1		
	ENERGY STAR	Certified New	GreenStar Homes	Home Energy	Home Energy	/	LEED for	Building	Time of Sale	Ready			
state	Certified Building	Construction	Certification	Rating System	Score	LEED	Homes	Standard	Energy Score	Home	renewables	Total Records	Total Properties
MN	719	24570	52	75928	14	4 243	47	5	5 16011	245	2	117836	92699



		ENERGY STAR					National Green	Zero Energy		
	ENERGY STAR	Certified New	Home Energy	Home Energy		LEED for	Building	Ready		
state	Certified Building	Construction	Rating System	Score	LEED	Homes	Standard	Home	Total Records	Total Properties
WI	601	6043	25707	1	242	17	50	55	32716	26553

RESO Data Standards for the real estate industry



Renewables

PowerProductionType

PowerProductionYearInstall

PowerProductionSize

PowerProductionAnnual

PowerProductionAnnualStatus

PowerProductionOwnership

Photovoltaics

6.12 kW DC

2016

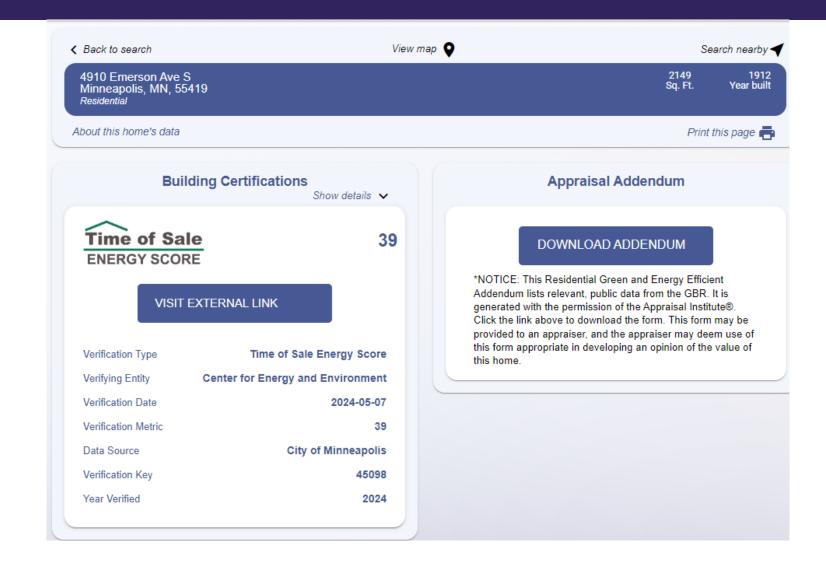
6.12 kW DC

7084 kWh/year

Estimated

seller

Standardized Data for the Real Estate Industry, and You



Green Verification URL – Link to Reports

Time of Sale Energy Score Report:

- Score this home is less energy efficient
- Report provides insight to seller or potential buyer to inform about improvements
- Includes estimated costs and savings as a result of improvements

Minneapolis

Energy Disclosure Report

Home Profile

4910 EMERSON AVE S Minneapolis, MN 55419 Year built: 1912 House sq. ft.: 2,149 Number of stories: 2 Visit Date: 5/7/24

How it Works

The energy score for your home is similar to MPG for a car, but it evaluates the energy performance of the home. The higher the home scores, the lower your energy bills will be.

Improve your score by completing the energy improvements below. Homes with the highest scores typically sell for 2-6% more.**

When you are ready to begin, contact an Energy Advisor at 651-328-6225. They can answer questions and connect you to helpful resources.

Financing and rebates are available from the City of Minneapolis and CenterPoint Energy to help you complete these energy improvements.

Energy Score



Home Energy Summary

Your home is not energy efficient. This results in a lot of wasted energy when trying to heat and cool your home. which leads to higher energy bills. You have significant opportunities to increase your home's comfort and make costeffective energy improvements. To learn more visit mncee.org/TISH or contact an Energy Advisor.

	Energy Improvements (by priority)	Improvement Points	Typical Cost	Incentives Up To	Yearly Bill Savings
Wall Insulation	Insulate your exterior walls	40	\$3,000-\$6,000	\$3,000 rebate; \$2,000 tax credit	\$200-\$400
Heating System	Upgrade your boiler	13	\$9,000- \$11,000	\$500 rebate; \$600 tax credit	\$150-\$300
Attic Insulation	Air seal and insulate your attic	8	\$3,000-\$6,000	\$2,600 rebate; \$2,000 tax credit	\$150-\$300
Storm Windows	All single-pane windows have storm windows.				



Next Step: Contact an Energy Advisor



651-328-6225 or energydisclosure@mncee.org mncee.org/TISH

An Energy Advisor can help:



Answer you questions



Connect you to financing and utility rebates



trusted contractors

The energy advisor service is provided by CEE with funding from CenterPoint Energy.

8 improvement points

Prioritized Energy Improvements

Current wall insulation depth: 0 inches

Recommended wall insulation depth: 3.5 inches

Wall Insulation

40 improvement points Insulate your walls. Walls with little insulation are cold and drafty. Dense packing your walls with insulation will reduce home drafts and improve home comfort. This will also reduce energy waste and save money. Contact an Energy Advisor to learn more and get help with next

Heating System 13 improvement points

Current boiler efficiency: 80-84%

Recommended efficiency: 91% or better

The boiler is within the typical 20-year service lifespan but is not energy efficient and risks leaking carbon monoxide. When it is time to replace it, choose a high-efficiency boiler for improved energy savings, comfort, and

Also consider installing a heat pump for energy efficient cooling and supplemental heating. A heat pump plus a boiler can significantly reduce household emissions. Visit electrifyeverythingmn.org to learn more about equipment options that benefit indoor air quality and the climate.

Current attic insulation depth: 8 inches

.............

Recommended attic insulation depth: 16 inches

Attic Insulation

Air seal and insulate your attic to improve the comfort of your home. Air leaks allow air from inside your house to enter the attic, potentially causing comfort issues, ice dams and moisture issues. Sealing these leaks and adding insulation will improve your home's durability and save energy. Contact an Energy Advisor to learn more and get help with Typical Cost:* \$3,000-\$6,000 Yearly Bill Savings:*

\$200-\$400 Incentives Up To: \$3,000 rebate; \$2,000 tax credit

Typical Boiler Cost:* Yearly Bill Savings:* ncentives Up To:

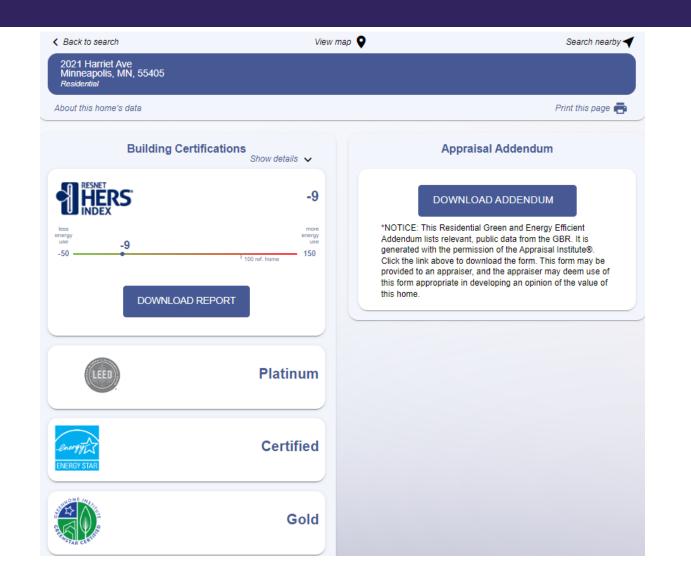
Typical Cost:* \$3,000-\$6,000 Yearly Bill Savings:* \$150-\$300 Incentives Up To:

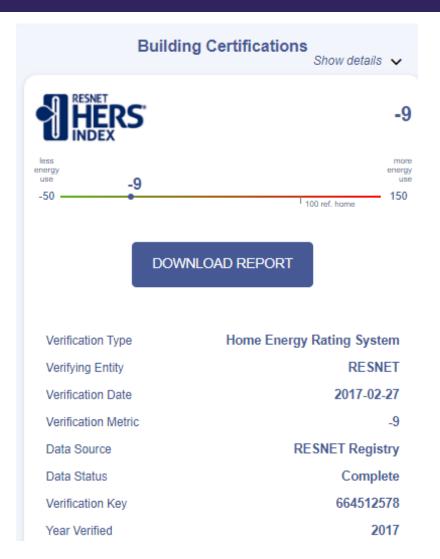
\$2,600 rebate;

\$2,000 tax credi

^{**} Multiple studies referenced by the U.S. Department of Energy show that homes that are labeled as energy efficient sell for 2-6% more

Green Verification Type – A property can have many





Green Verification URL – Link to Reports

HERS Rating Report:

- Estimated Annual Energy Costs (this is NOT utility bill data, but an asset-based estimate)
- Estimated Annual Energy Consumption by type
- Report generated by the Green Building Registry
- Score this home is more energy efficient (a higher performing home) – ask about the features of the property to add to the listing



State of Minnesota

RESNET.
REGISTRAL EMERCY SERVICES ACTIVORE

THIS HOME'S 49
SCORE OUT OF 150

this HOME'S ESTIMATED ENERGY COSTS

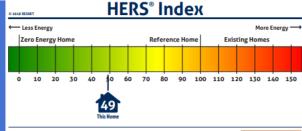
\$2,125
PER YEAR

HOME PROFILE

LOCATION: 2003 Queen Ave N Minneapolis, MN 55411 YEAR BUILT: 2023

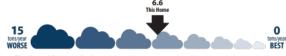
ASSESSMENT

ASSESSMENT DATE: 02/07/2023



HOW MUCH ENERGY IS THIS HOME LIKELY TO USE? Electric: 6,610 kWh/yr. \$759 Natural Gas: 770 therms/yr. \$1,366 Other: \$50 Renewable Generation: \$50 TOTAL ENERGY COSTS PER YEAR \$2,125

THIS HOME'S CARBON FOOTPRINT:



To understand the impact of carbon emissions visit: epa.gov/energy/greenhouse-gas-equivalencies-calculator

- Actual energy use and costs may vary based on occupant behavior and other factors. Estimated energy costs were
 calculated based on current utility prices (\$0.11/kwh for electricity; \$1.77/therm for natural gas; \$4.16/gal for heating
 dis; \$2.0/gal for propane).
- Additional energy efficient features may be present in the home and were not documented at time of assessmenters.
 Trees & exterior features may provide additional energy efficiency benefits. Visit energy.gov to learn more.
- Carbon footprint is based only on estimated home energy use. Carbon emissions are estimated based on utility and fuel-specific emissions factors provided by US EPA eGRID data.
- This report was created from information provided by the responsible green verification entity. The latest copy of this
 report is available from us.greenbuildingregistry.com with updated utility and carbon information annually.

Appraisal Institute Residential Green & Energy Efficient Addendum

us.greenbuildingr egistry.com

THIRD-PARTY VER	RIFICATIONS	(See type	s defined in glossary).					
The following verified	d items are con	sidered wit	hin the appraisal analysis of t	he subject prop	perty:			
Green Certification Certifications attest that the home meets certain minimum thresholds.	Energy Depar Home Innova Home Innova Living Building Passivhaus St Passive House USGBC LEED	tment (DOE tion Researd tion Researd Challenge andard: Institute U Star Homes Green Cer ESTAR-USV2 Organizati	ch Labs NGBS Home Remode ch Labs NGBS New Home: (LBC): S: Certification: Gold tification Version: LEED-LEED-H	☐ Zero Ener I: ☐ Bronze ☐ Living Bui ☐ PHI Low E ☐ PHIUS+ 20 ☐ Certified	Silver Idding Certified Energy Bilver Silver ABOVE VA	me (ZERH) ☐ Gold d ☐ Peta	by	
Energy Label Labels disclose the state of the home's energy assets.	RESNET'S HER Rating (1 to 1 Sampling R Projected Confirmed DOE'S Home R Score Score (1 to 10 Official Sco Unofficial S Other Energy Range (Rating Rating Energy Ore Score Score:	Estimated energy savings for this home: \$/yearii _ ckWh rate. Dated2 /_2i /_2Energy Savings includes electricity, heating & Cooling. Score below 100 indicates energy costs are expected to be lower than average loc code home per square foot. HERS Index Report estimates energy cost based on number of bedrooms plus one. Only a "confirmed rating" is a diagnostic test. Estimated energy savings for this home: \$/yearii _ ckWh rate. Dated/_/Energy Savings includes electricity, heating & Cooling. Score above five indicates energy costs are expected to be lower than average loc home. Home Energy Score estimates energy cost based on state average energy rates and the home's energy features. Estimated energy savings: \$/yearc kWh rate dated/_/_ Describe energy label system:					
	Date Verified: 2/27/2017	Organizati	on URL: www.resnet.us omeenergyscore.gov		✓ Verificat	LID ONLY IF C tion provided g organizatio	by	
Verified Energy Improvements			nprovements: For more deta https://us.gree		try.com/gree	n-homes/MN	10000008	
Only include improvements with verified documentation.	Date Verified:	Organizati	of Efficiency Improvements on URL:	Version:	ABOVE VALID ONLY IF CHECKED: Verification provided by certifying organization			
Canadata d bus to	Control of the Contro		Enthalte and alternative and Table	and the second second	ALCOHOL:	D-4 0F	140 1000 4	

Completed by: Autopopulated from us.greenbuildingregistry.com Title: online database Date: 05/13/2024

Why does it matter?

A well-functioning real estate market requires that the assets of a home be recognized by buyers and accurately valued by appraisal and lending professionals.

Important Information is Missing

Historically, information on a home such as:

- The energy use
- Third party building certifications
- Power production (solar panels)

have not made it into the real estate transaction process.

Impact of Missing Information

- Thousands of dollars of value could be lost because trustworthy, objective data was not available for a listing agent, the appraiser and lending institution to react to at the time of sale
- Opportunity to provide insight into the true cost of ownership and help a buyer make a more informed purchasing decision
- Buyers unable to utilize Green mortgage products, often with more favorable terms

Highlights

In March 2023, NAR surveyed its members about sustainability issues facing the industry. Some of the findings are as follows:

- 32% of respondents reported that their MLS has green data fields, and respondents typically used the green data fields to promote green features and energy information.
- 63% said energy efficiency promotion in listings was very or somewhat valuable.
- 48% of respondents found clients were at least somewhat interested in sustainability.
- 42% of homes with green certifications spent neither more nor less time on the market.



63% "energy efficiency promotion in listings was very or somewhat valuable"



THE GREAT DISCONNECT

 59% <u>DON'T KNOW</u> if their MLS has green data fields

 48% of respondents <u>DON'T USE</u> the green MLS data fields

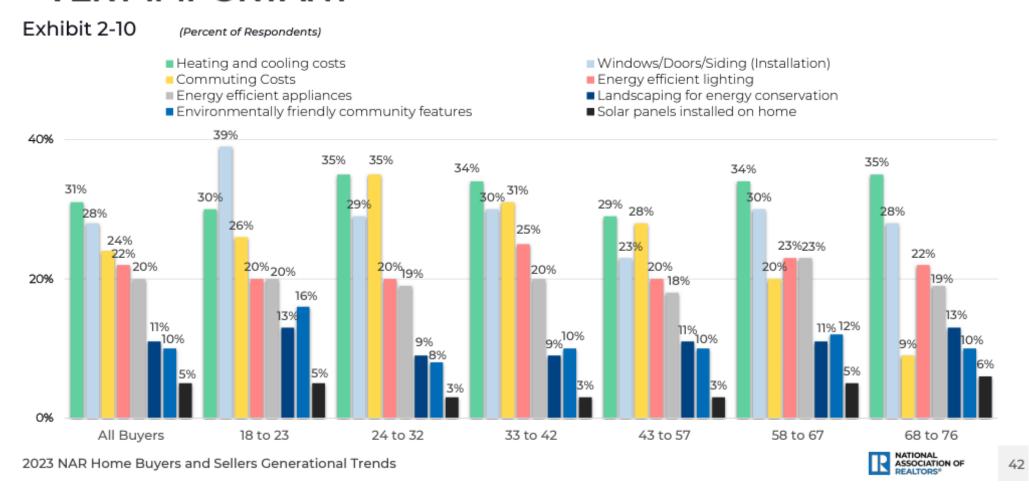
HTTPS://WWW.NAR.REALTOR/RESEARCH-AND-STATISTICS/RESEARCH-REPORTS/REALTORS-AND-SUSTAINABILITY

A study published by the National Association of Home Builders in February 2021 noted that:

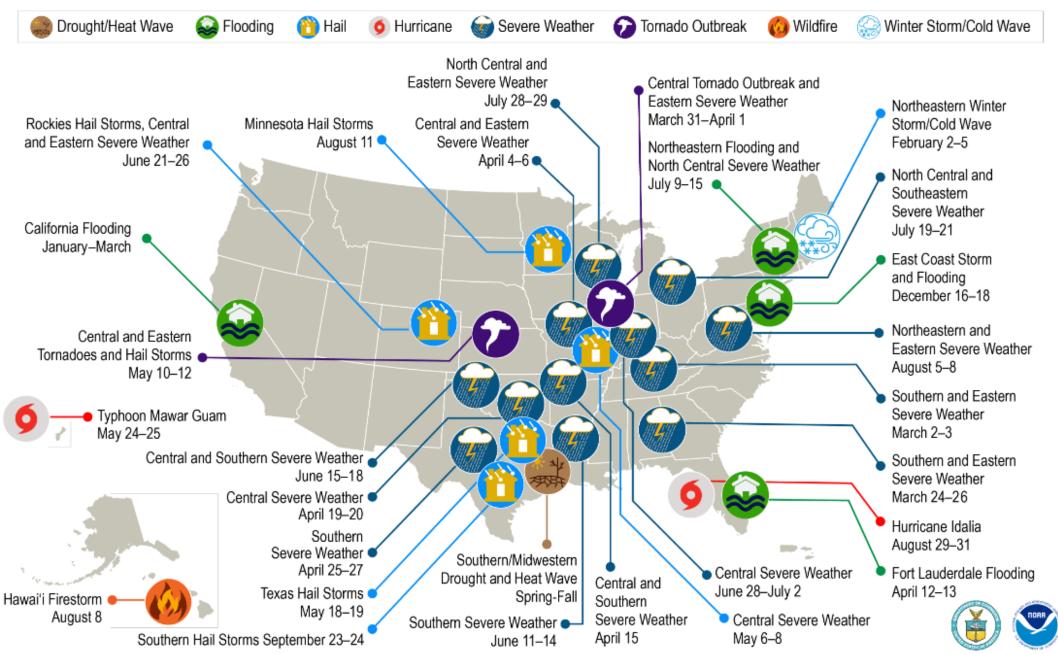
"The majority of buyers prefer to go green when provided the option".

Including this information in listings helps deliver a buyer that option.

ENVIRONMENTALLY FRIENDLY FEATURES CONSIDERED "VERY IMPORTANT"



U.S. 2023 Billion-Dollar Weather and Climate Disasters



Energy Disclosure Policies

Piedmont, CA also has a mandatory time of listing energy disclosure policy using Home Energy Score.

Ann Arbor, MI just passed HES mandatory disclosure policy.

https://www.naseo.org/issues/buildings/home-energy-labeling

Residential Energy Disclosure Policies in States and Cities

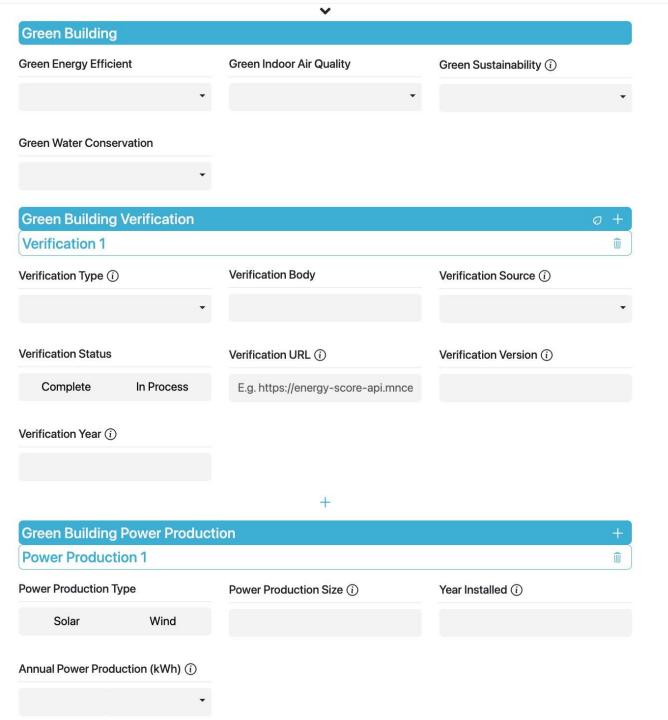
(Last updated November 2022)



Download PDF of Residential Disclosure Policies in States and Cities

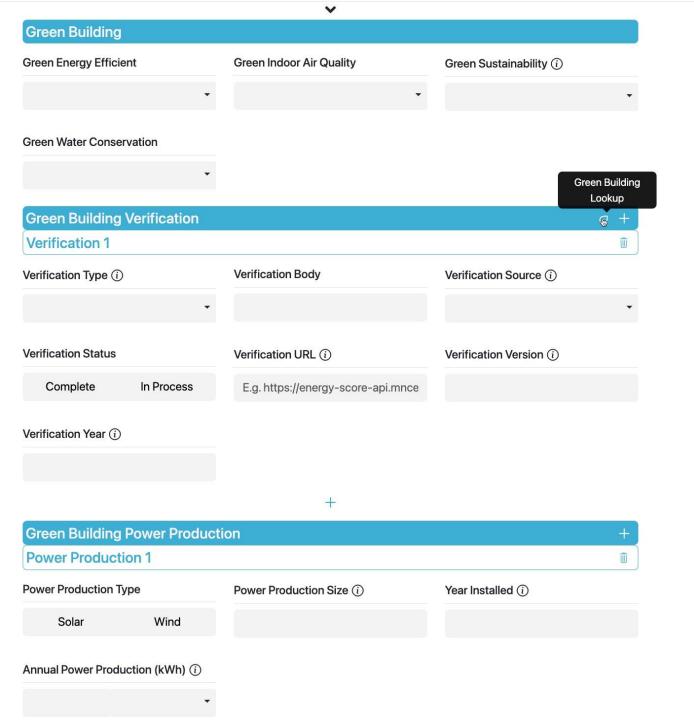
Auto-Populating Data Into Listings

Add/Edit – Data Sections



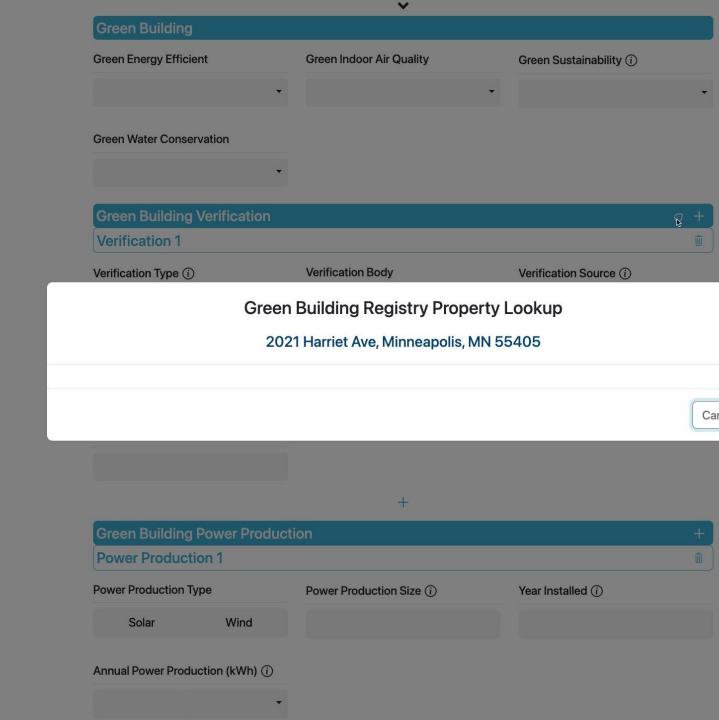


Add/Edit – Data Lookup Button - Leaf

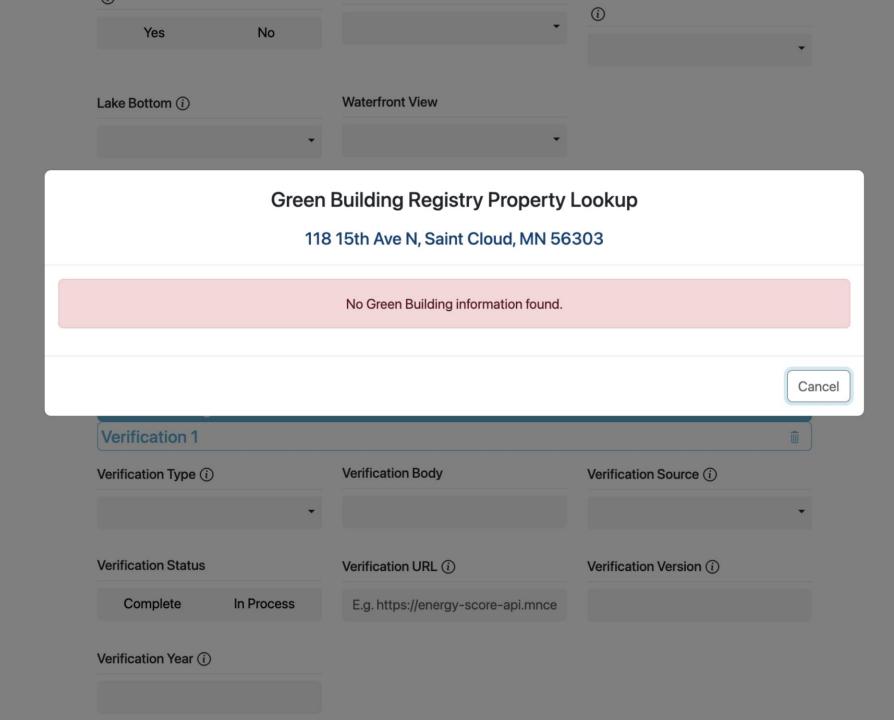




Add/Edit – Property Address is shown



Add/Edit – No Available Data



Add/Edit - Review Available Data and **Insert Into Listing or** Cancel

Green Energy Efficient

Green Indoor Air Quality

Green Sustainability (i)

Green Building Registry Property Lookup

2021 Harriet Ave, Minneapolis, MN 55405

Green Building Verifications Found

Verification Type: LEED For Homes

Verification Body: US Green Building

Verification Rating: Platinum

Verification Status: Complete

Verification URL:

Verification Version: LEED-HOMES

Verification Source: Program Sponsor

v2008

Verification Year: 2018

Council

Institute

Verification Type: GreenStar Homes

Verification Body: GreenHome

Verification Rating: Gold

Certification

Verification Source: Program Sponsor

Verification Status: Complete

Verification URL:

Verification Version:

Verification Year: 2018

Verification Body: RESNET

Verification Score: -9

Verification Type: Home Energy

Rating System (HERS)

Verification Source: Program Sponsor

Verification Status: Complete

Verification URL:

Verification Version:

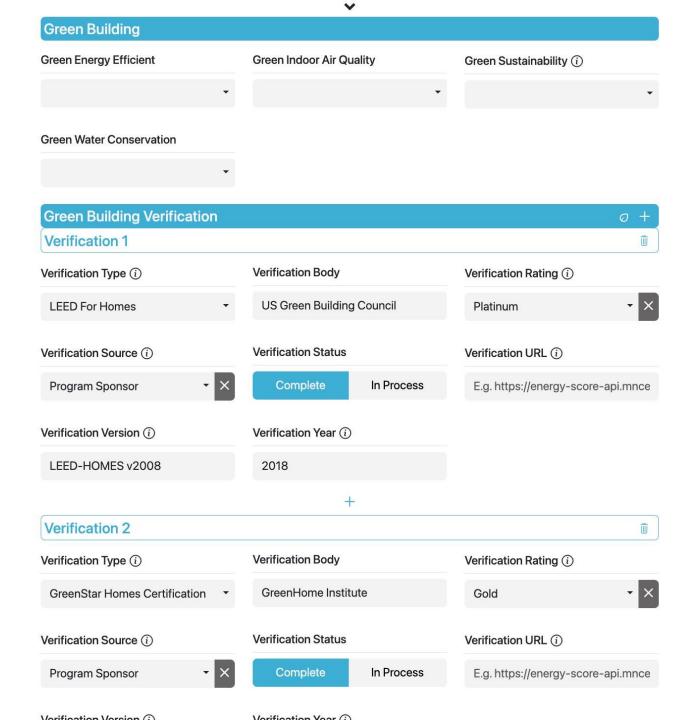
Verification Year: 2017

Cancel

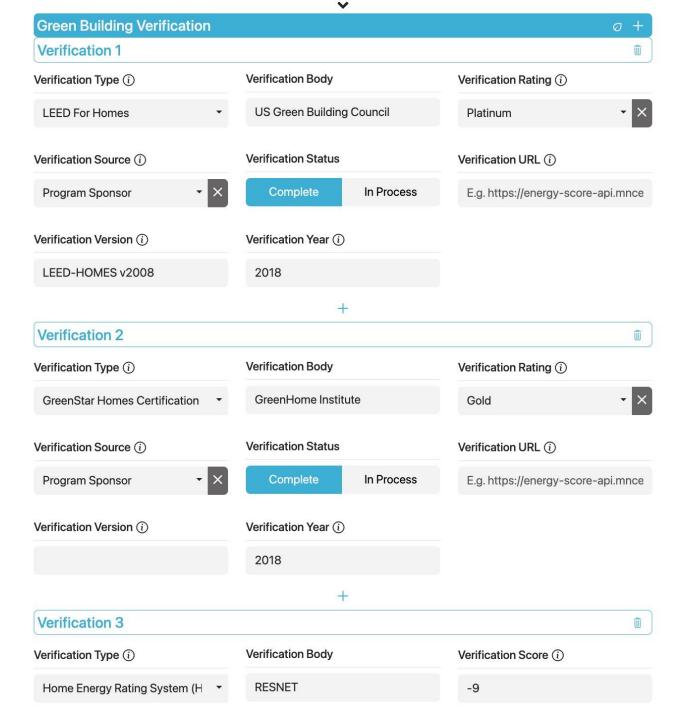
Insert Into Listing

Annual Power Production (kWh) (i)

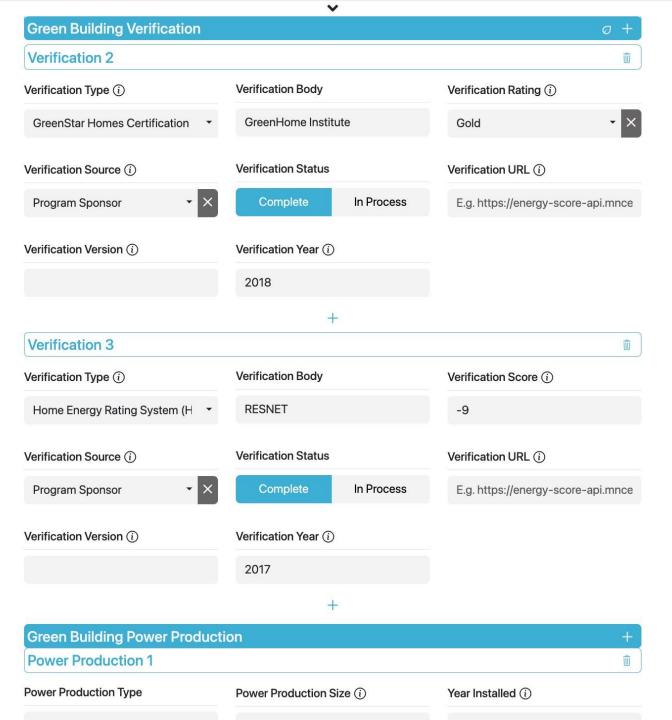
Add/Edit - Data Auto-Populated into Listing



Add/Edit – Data Auto-Populated into Listing



Add/Edit – Data Auto-Populated into Listing



Marketing the Opportunity

WIIFM



Do your green check



Listing Side

- Search us.greenbuildingregistry.com to identify if the property has documented green verification(s) or Solar PV
- Learn about the different green verification programs and the value they provide to the occupant
- Evaluate the neighborhood for other properties with documentation – have these transacted recently?
- Use this data on listing appointments ask the seller about the unique features of their certified home to enter that feature data into listings
- Use this information to properly price the property
- If it has owned Solar PV, use the https://pvvalue.com/ tool to help calculate the value (obtain education on this tool)
- Talk about the benefits in the public remarks; include it in the marketing of the home
- It's important data to have in listings for comps, CMA's, and for appraisal valuations
- When available, include the green verification report/URL on listings

Include Data on Listings

Public Remarks - Explain what it means

"Don't just put the third-party certification logo on your package, tell the story of why it's there"

MARKETING MATRIX

NOW — FUTURE

BEST

-	
- 1	

	Explain Value Proposition in Public Remarks	Home Score + Logo on Main Photo	Fields in Data Feeds	Image/Logo on Property Report
	Link to Documentation in Public Remarks	Documentation to Buyer/ Open House	Searchable Fields	Green Data Auto Population
	Score/Rating in Public Remarks	Include in VT	Add Fields to Property Reports	Ask/Require Portal Display of Fields
	Include Data on Listing	Upload Documentation to the Listing	Adopt RESO Power Production Fields	Upload Appraisal Inst. Green Addendum to Pics
0	Education	Upload Certification to Pics	Adopt RESO Green Verification Fields	Upload Appraisal Inst. Green Addendum to Listing

GOOD



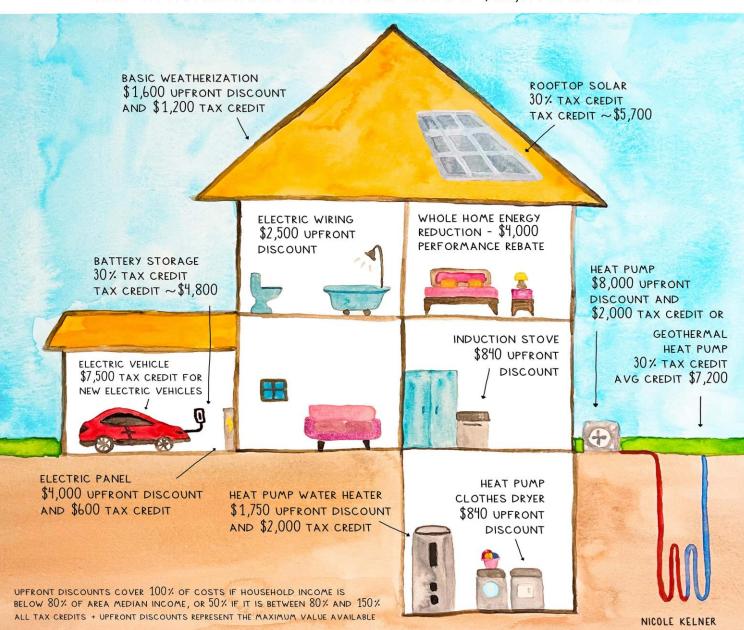
Buying Side

- Discuss buyer wishes, do they have any health concerns?
- Search us.greenbuildingregistry.com to identify if the property has documented green verification(s) or Solar PV
- Cross-check that against the available listing inventory
- Learn about the different green verification programs and the value they provide to the occupant
- Review the reports/certifications that are available what is the estimated annual energy cost? Does it include any recommended improvements?
- Understand how Energy Cost Estimates help provide insight into total cost of ownership
- Become familiar with the federal tax credits available to a homeowner to make energy efficiency improvements
- Learn about green mortgage products that may be available for a more energy-efficient home, or to improve efficiency
- Identify any local incentive programs to help offset improvement costs

Inflation Reduction Act Tax Credits

POTENTIAL SAVINGS FROM THE IRA

BASED OFF A 2 PERSON HOME WITH A COMBINED INCOME OF \$150,000 IN NEW YORK CITY



FINANCING PURCHASE OR IMPROVEMENTS



Fannie Mae's HomeStyle® Energy Mortgage Example

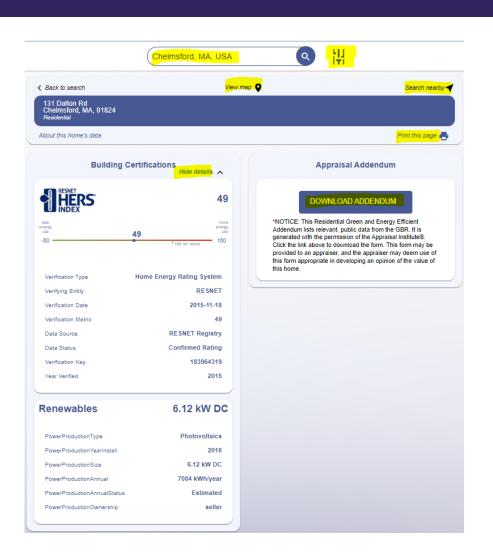
	Without Energy Improvements	With Energy Improvements
Loan Payment	\$1413	\$1432
Less Estimated Energy Savings	-	-\$20
Net Payment w/Energy Savings	-	\$1412



Tools for your Toolbox

- Electrification Incentives Calculator (Rewiring America) https://homes.rewiringamerica.org/calculator
- PV Value Est value of an owned solar PV System https://pvvalue.com/
- Federal Tax Credits Energy Savings Hub (U.S. DOE) https://www.energy.gov/save
- National Association of REALTORS® Sustainability https://www.nar.realtor/sustainability
- Appraisal Institute AI Reports® Residential Green and Energy Efficient Addendum https://www.appraisalinstitute.org/getmedia/dd5efef5-1cd5-44db-918d-f88345f6b960/ai-report-residential_green_energy_efficient_addendum
- Freddie Mac GreenCHOICE Mortgages® https://sf.freddiemac.com/working-with-us/origination-underwriting/mortgage-products/greenchoice-mortgages
- Fannie Mae HomeStyle® Renovation https://singlefamily.fanniemae.com/originating-underwriting/mortgage-products/homestyle-renovation

Explore – us.greenbuildingregistry.com



- Property Research Search public website by address, town, county
- Filter Results by property type, certification type, date and score (HERS, HES)
- View Property on a map
- Search nearby to learn what other nearby properties have green verifications
- Print the page to have another record of the data
- Show details to view the data details

Learn More & Resources

- NAR "Intro to Sustainability and Resiliency: What REALTORS® Need to Know https://www.nar.realtor/sustainability/intro-to-sustainability-and-resiliency-what-realtors-need-to-know (1 hour, on-demand, FREE)
- NAR Green Designation https://www.nar.realtor/education/designations-and-certifications/green
- Selling the Sun: Listing, Marketing and Establishing Value for Solar PV Homes Craig Foley
- Green Building Registry Data Types https://www.earthadvantage.org/home-data/data-types.html
- About Green Building Registry https://www.earthadvantage.org/home-data/green-building-registry.html
- The Inflation Reduction Act: 10 Key Opportunities for the Real Estate Industry https://www.earthadvantage.org/news/the-inflation-reduction-act--top-10-opportunities-for-t.html



About Earth Advantage

Earth Advantage is a non-profit organization helping to advance a more informed and humane housing market that recognizes the elements of homes that create climate risk and values the characteristics of homes that provide climate solutions. Our teams partner with entities across the country to develop tangible, systemic solutions for climate-friendly housing.

For more information visit www.earthadvantage.org

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