

SS 2. 8/13/19

Presentation

Milwaukie Home Energy Score Continued Discussion

August 13th, 2019

Natalie Rogers

Climate Action and
Sustainability Coordinator

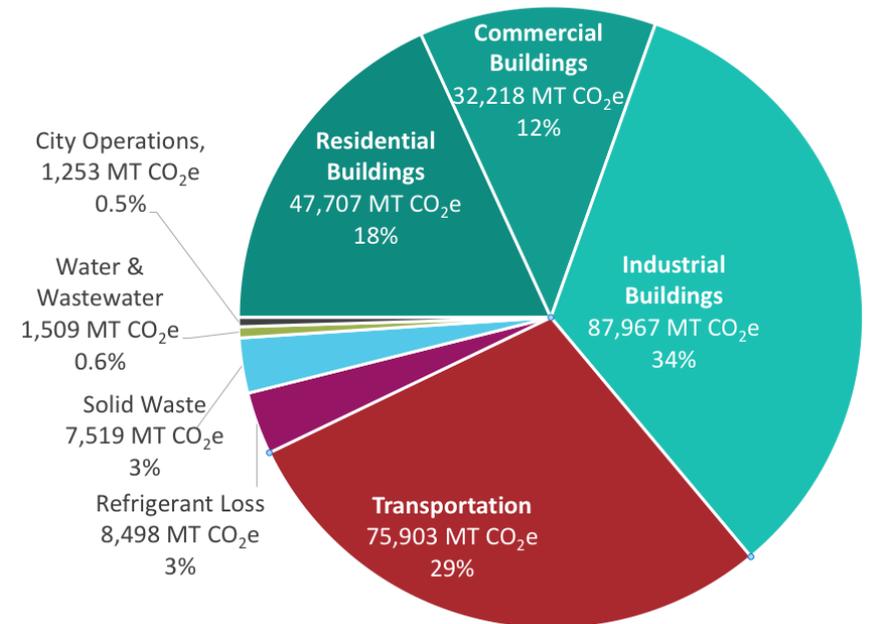


CITY OF MILWAUKIE

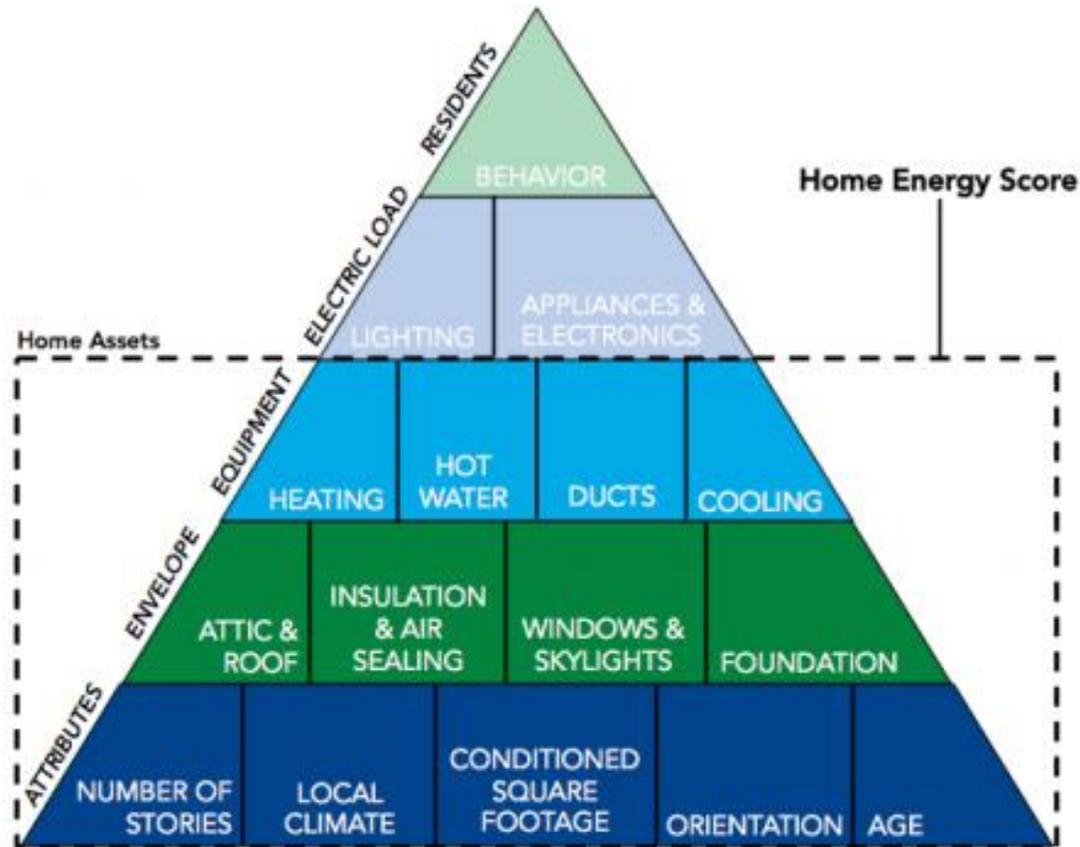
Home Energy Scores help Milwaukie reach adopted goals

- Milwaukie adopted carbon reduction goals in response to the climate crisis
- Residential energy is 18% of Milwaukie's sector-based emissions
- Energy efficiency is hard to see and understand without help
- Home Energy Score programs explain and encourage energy efficiency, and provide pathways to retrofitting homes
- Milwaukie CAP calls out adoption of Portland's residential energy scoring program

Milwaukie Sector-Based Greenhouse Gas Emissions
262,574 MT CO₂e
12.7 MT CO₂e per capita



US DOE Home Energy Reports and Scores explain the energy efficiency of a home through a **general, replicable, and affordable methodology** that assesses a home's assets





OREGON
DEPARTMENT OF
ENERGY



U.S. DEPARTMENT OF ENERGY

THIS HOME'S SCORE

6

THIS HOME'S ESTIMATED ENERGY COSTS

\$1,257

PER YEAR

HOME PROFILE

LOCATION:
4359 SE Something Ave
Salem, OR 97304

YEAR BUILT:
1925

HEATED FLOOR AREA:
2,348 sq. ft.

NUMBER OF BEDROOMS:
3

ASSESSMENT

ASSESSMENT DATE:
04/29/2019

SCORE EXPIRATION DATE:
04/29/2027

ASSESSOR:
John Smith
Medford Home Performance

PHONE:
503-555-1212

EMAIL:
smith@medfordhp.com

LICENSE #:
1234567890

Flip over to learn how to improve this score and use less energy!

Better Buildings Home Energy Score

Average Home

Higher energy use 1 2 3 4 5 6 7 8 9 10 Lower energy use

SCORE TODAY

Official Assessment | ID# 233283

The Home Energy Score is a national rating system developed by the U.S. Department of Energy. The score reflects the average energy efficiency of a home based upon the home's structure and heating, cooling, and hot water systems. The average score is a 5. Learn more at HomeEnergyScore.gov.

HOW MUCH ENERGY IS THIS HOME LIKELY TO USE?

Electric:	8,275 kWh/yr (\$0.11/kWh)\$943
Natural Gas:	677 therms/yr (\$1.09/therm)\$738
Other:	\$0
Solar Generation:	(\$424)
TOTAL ENERGY COSTS PER YEAR	\$1,257

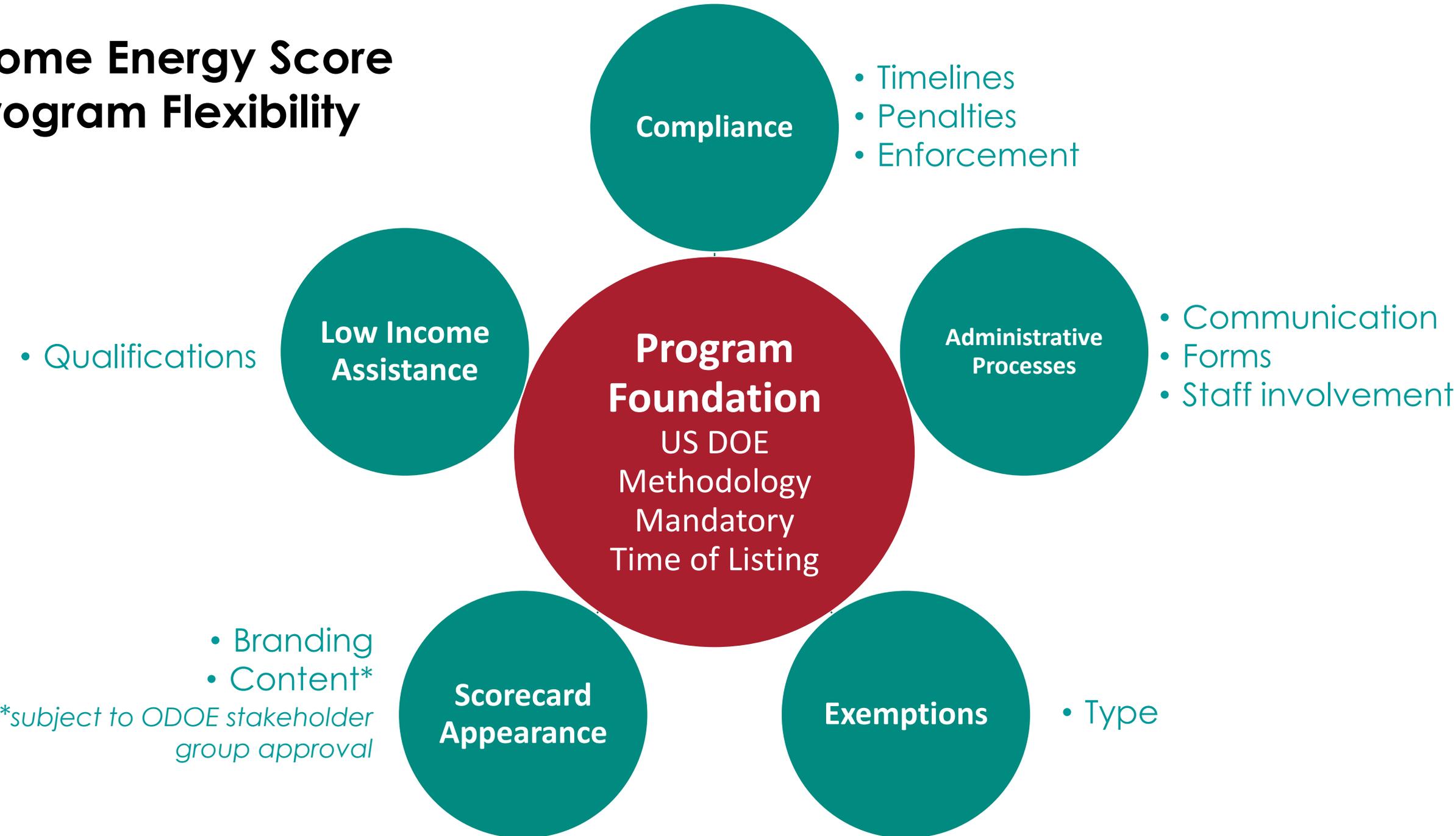
THIS HOME'S CARBON FOOTPRINT

15 tons/year WORSE ↓ 6.4 This Home ↑ 0 tons/year BEST

Carbon footprint by fuel type: Electric: 3.4, Natural Gas 3.0, Other 0.0

- Actual energy use and costs may vary based on occupant behavior and other factors.
- Estimated energy costs were calculated based on current utility prices in your area.
- Carbon footprint is based only on estimated home energy use. Carbon emissions are estimated based on utility and fuel-specific emissions factors provided by the OR Department of Energy.
- This report is valid for eight years from the assessment date. A free reprint of the report is available from us.greenbuildingregistry.com with updated utility and carbon information annually.
- This report meets Oregon's Home Energy Performance Score Standard.

Home Energy Score Program Flexibility



Follow up questions from July 16th Work Session



- Trees and exterior home features
- Exemption modifications
- Realtors as the Regulated Party
- Low-income assessment

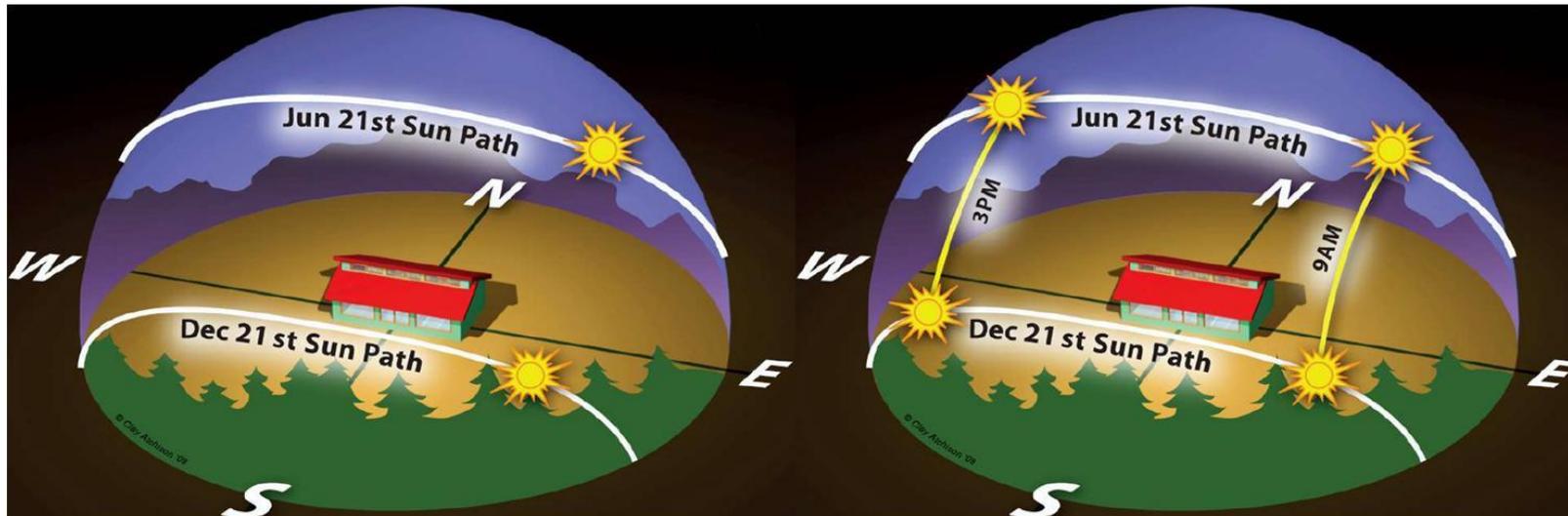
Can we include trees in the HES assessment?



- Trees are non-permanent structures
- Inclusion of trees can impact replicability, affordability, and ubiquity of HES assessment
- US DOE methodology must go through re-development process to include trees
 - Earth Advantage and ODOE can discuss with USDOE
- Staff can discuss potential disclaimer of tree energy efficiency and associated resources on Milwaukie Scorecards
 - May be subject to ODOE HES Stakeholder Group agreement

Can we include exterior building features in the HES assessment?

- Like trees, exterior features can be subjective to the assessor and the season
- Inclusion on assessment can increase difficulty and cost of assessment



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Does Council agree with staff pursuing inclusion of a disclosure statement?

Can we minimize exemptions for the HES program?



- Exemptions intended to minimize potential impact on sellers who are selling due to financial distress
 - Usually quick sales with small/no profit for homeowner
 - “ownership” of the title can change quickly between resident and financial institution
 - Foreclosures only exemption that is clearly not owned by resident
- Proposed modification: Require foreclosure sales to disclose HES
 - May have difficulties contacting title owner for compliance
 - May create some confusion between Portland program and Milwaukie program

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Are there any changes that Council would like to make to the originally proposed exemptions?

Can we make realtors the regulated party?



- Oregon Revised Statute 696.290

*“a real estate licensee **may not offer, promise, allow, give, pay or rebate, directly or indirectly, any part or share of the licensee’s compensation arising or accruing from any real estate transaction** or pay a finder’s fee to any person who is not a real estate licensee...”*

- HES upfront cost and ubiquitous for all Milwaukie homes, may not be perceived as an incentive for sellers to choose a particular realtor
- Remaining concerns regarding legality of realtors as regulated party
 - Potential need for industry engagement
 - Unintended impacts on market, including seller preference

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Would Council like staff to move forward with real estate licensees as the regulated party in city code?

Low-income Home Energy Score Assessments



- Free Home Energy Score assessments could be provided by the city for low-income qualified residents
 - Qualification through existing utility-assistance program
 - Minimizes confidential paperwork and information flowing through city
 - Streamlines staff workload
 - Resident receives utility assistance if not already participating
- Can work with a single contractor who has experience with energy efficiency in low-income and disadvantaged communities
 - Community Energy Project (non-profit)

Low-income Home Energy Score Assessments



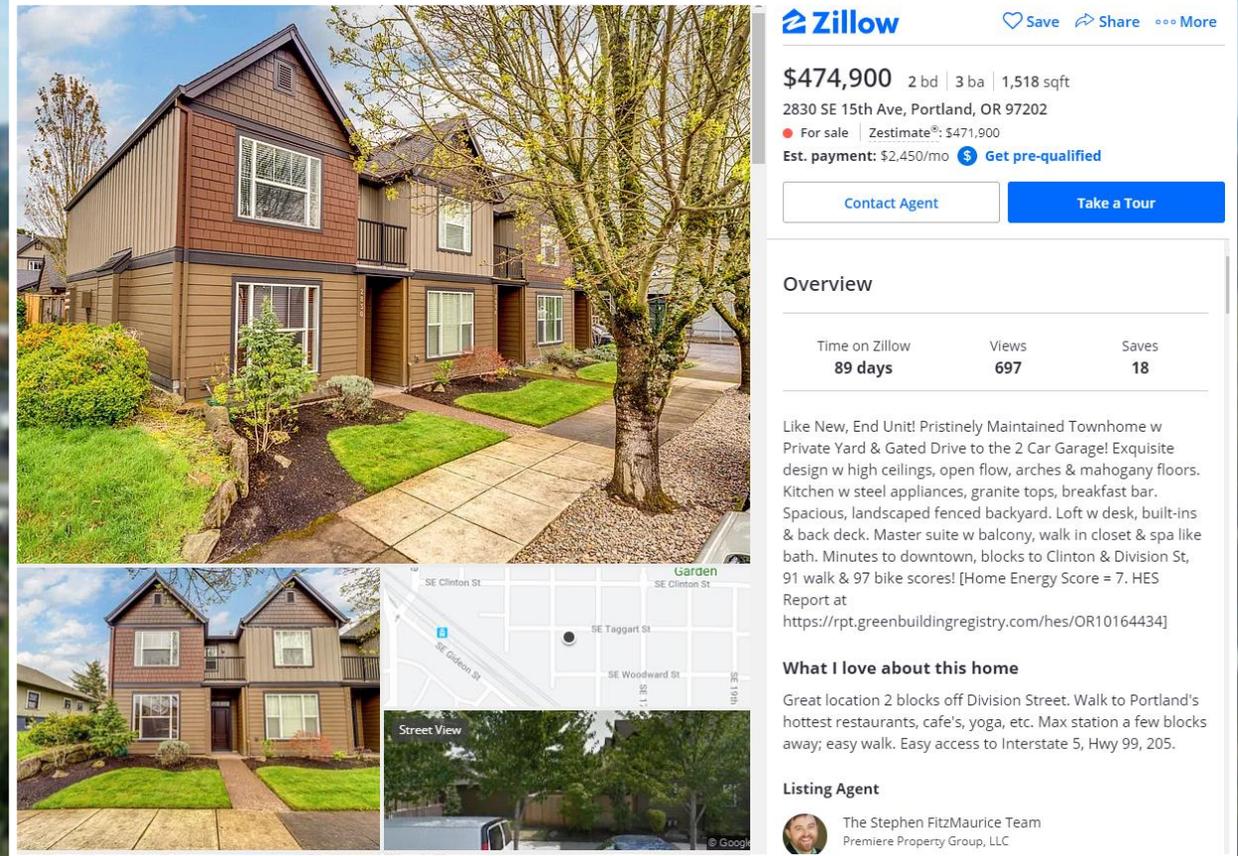
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Would Council like staff to move forward with this low-income assistance process in the HES program?

Home Energy Score Program Compliance

Compliance:

- Random audit of listed homes (10%)
- Non-compliant homes given notice with 90 days to comply, \$500 fee following
- Coordination between Code Compliance and CASC to manage enforcement, outreach, program compliance evaluation, and exceptions/waivers



Zillow Save Share More

\$474,900 2 bd | 3 ba | 1,518 sqft
2830 SE 15th Ave, Portland, OR 97202
For sale | Zestimate®: \$471,900
Est. payment: \$2,450/mo [Get pre-qualified](#)

Contact Agent Take a Tour

Overview

Time on Zillow	Views	Saves
89 days	697	18

Like New, End Unit! Pristinely Maintained Townhome w Private Yard & Gated Drive to the 2 Car Garage! Exquisite design w high ceilings, open flow, arches & mahogany floors. Kitchen w steel appliances, granite tops, breakfast bar. Spacious, landscaped fenced backyard. Loft w desk, built-ins & back deck. Master suite w balcony, walk in closet & spa like bath. Minutes to downtown, blocks to Clinton & Division St, 91 walk & 97 bike scores! [Home Energy Score = 7. HES Report at <https://rpt.greenbuildingregistry.com/hes/OR10164434>]

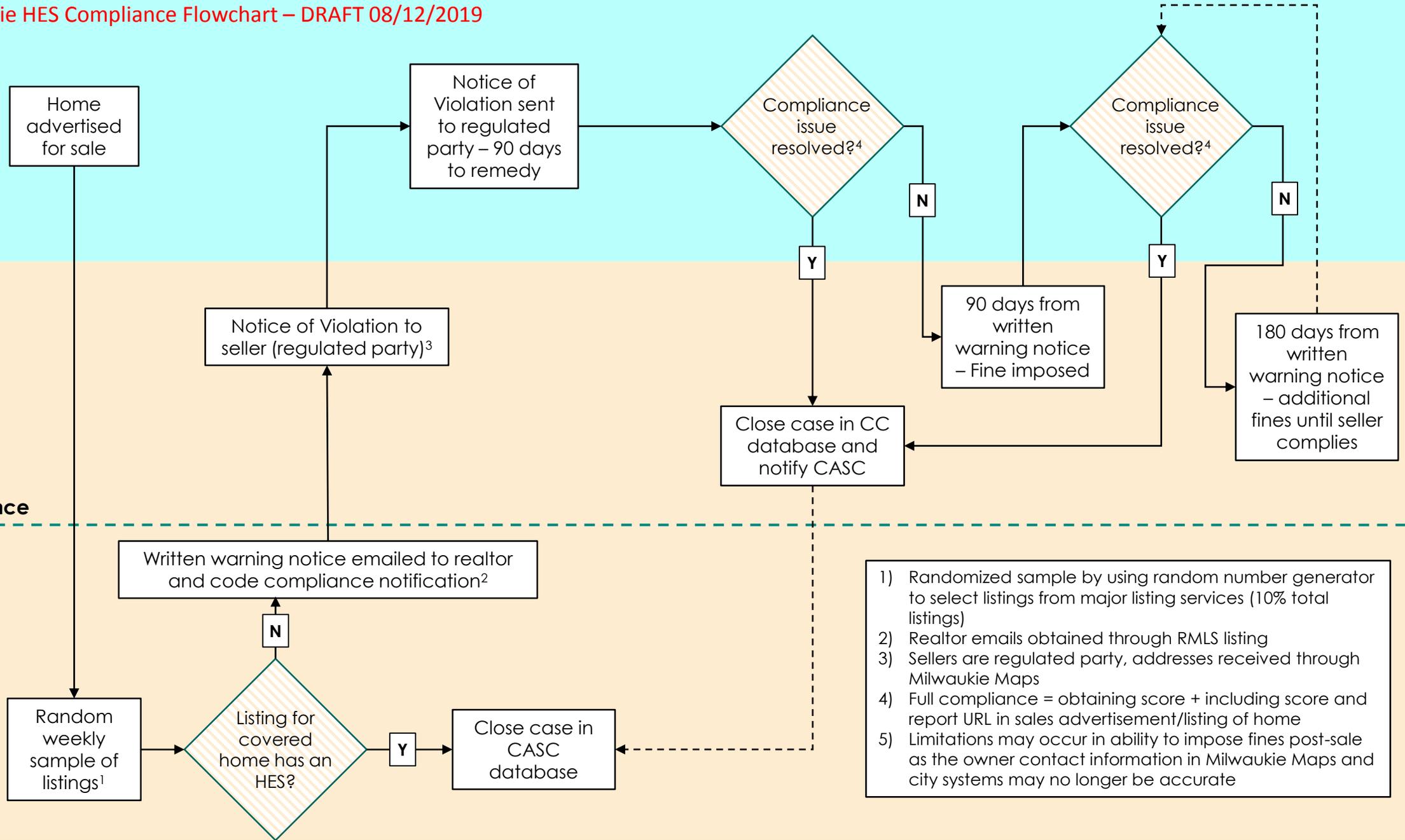
What I love about this home

Great location 2 blocks off Division Street. Walk to Portland's hottest restaurants, cafe's, yoga, etc. Max station a few blocks away; easy walk. Easy access to Interstate 5, Hwy 99, 205.

Listing Agent
The Stephen FitzMaurice Team
Premiere Property Group, LLC

Code Compliance

CASC



Questions?

Peter Passarelli

Public Works Director

passarellip@milwaukieoregon.gov

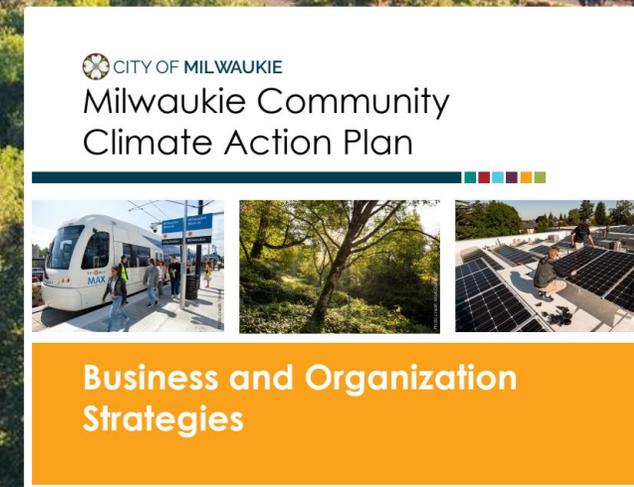
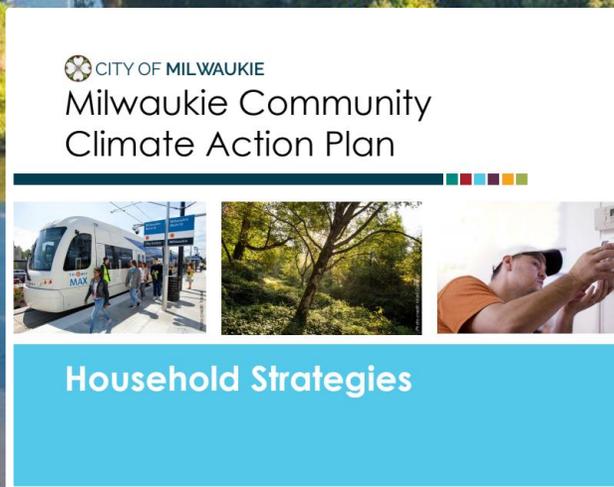
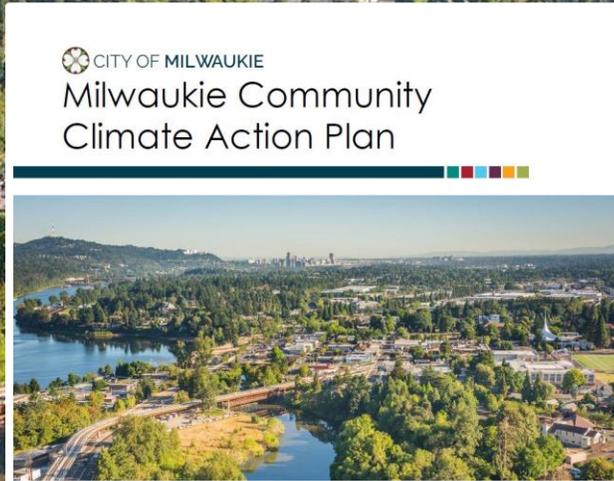
503-786-7614

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rogersn@milwaukieoregon.gov

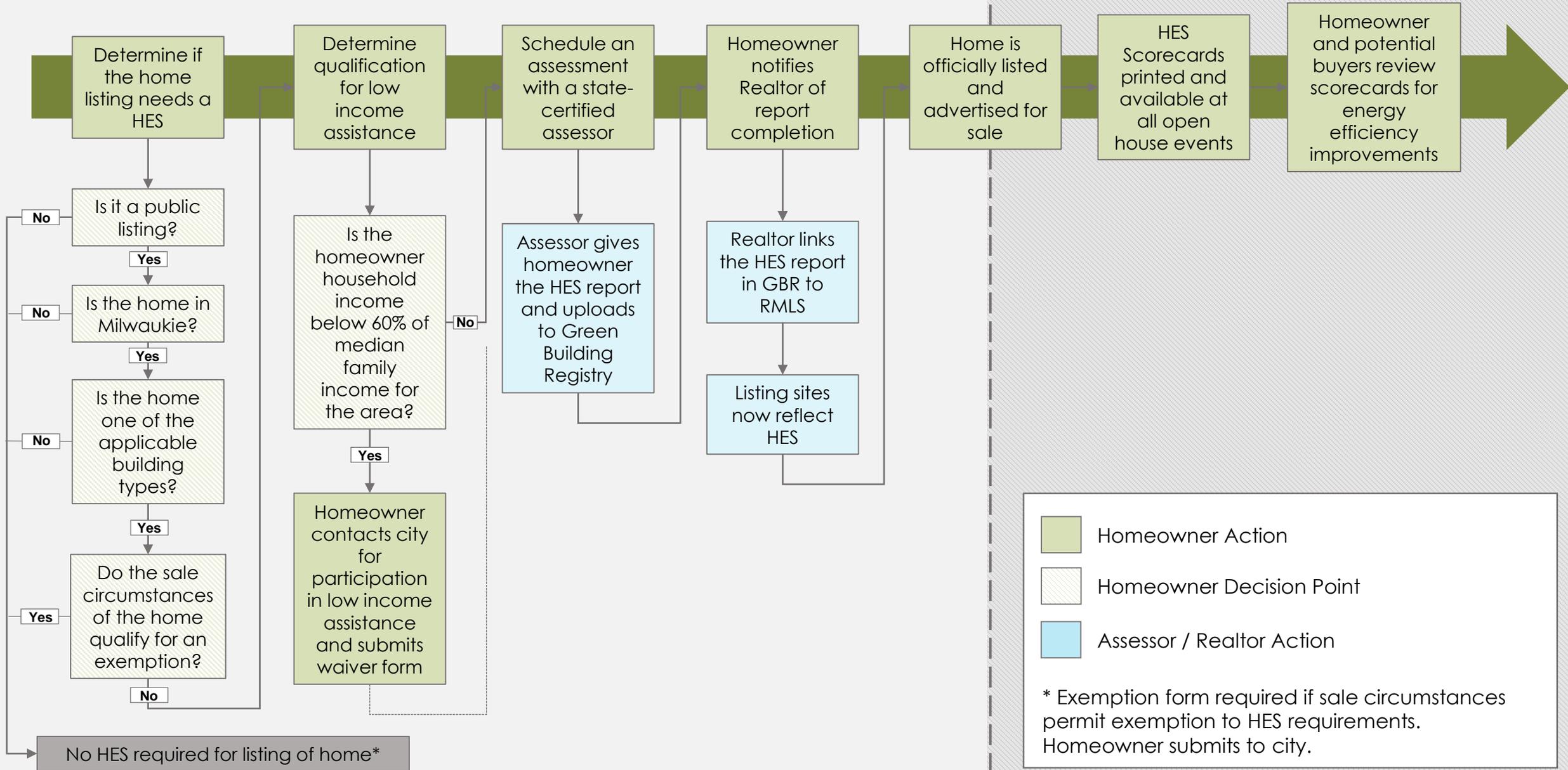
503-786-7668



CITY OF MILWAUKIE

Before Listing

After Listing



Home Energy Score – Home Seller Process



City of Portland Home Energy Assessors

Home Energy Assessors must be authorized to provide the City of Portland Home Energy Score. The City of Portland, along with its quality assurance partner Earth Advantage, manages the authorization of Home Energy Assessors and maintains a list of professionals who have completed the required steps in the authorization process. Please continue to check this list as additional Home Energy Assessors become authorized to provide the City of Portland Home Energy Score.

IF YOU ARE LOOKING FOR A PRE-CONSTRUCTION DESIGNATED ENERGY ASSESSOR, PLEASE VISIT THIS PAGE:
[PRE-CONSTRUCTION ENERGY ASSESSORS](#)

BROWNING INSPECTIONS LLC

503-255-8971
browninginspections@gmail.com
CDE# 211342
Company's Authorized Home Energy Assessors
David Browning

PROPERTY EXAM CORP

503-252-7144
pe@propertyexam.com
CDE# 187791
Company's Authorized Home Energy Assessors
Scott Harris

JBC INSPECTIONS

503-316-8807
jbcinspections.com
CDE# 183403
Company's Authorized Home Energy Assessors
James Covington

EAST SIDE PILLAR TO POST HOME INSPECTIONS

971-777-0276
esip@eastsidepillar.com
CDE# 202222
Company's Authorized Home Energy Assessors
Tom Cushman

Determine if your home listing needs a HES

Schedule an assessment with a state-certified assessor

Notify your realtor of report completion

List your home with the HES

Have HES Scorecards printed and available at all open house events

Review your scorecard for optional energy efficiency improvements

Zillow Save Share More

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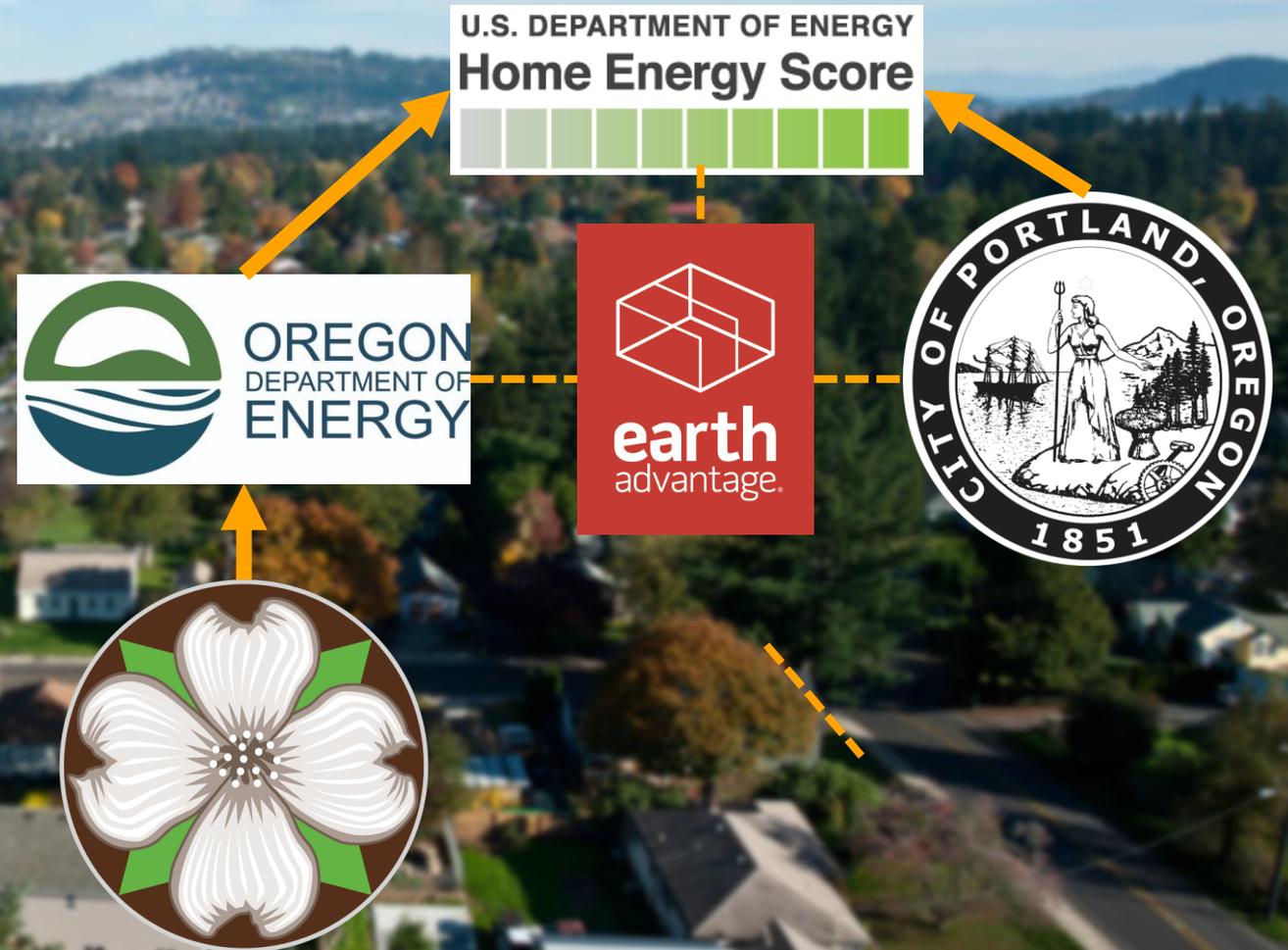
Listing Agent

The Stephen Fitzmaurice Team
Premiere Property Group, LLC

What would a Home Energy Score program look like in Milwaukie?

Partnerships:

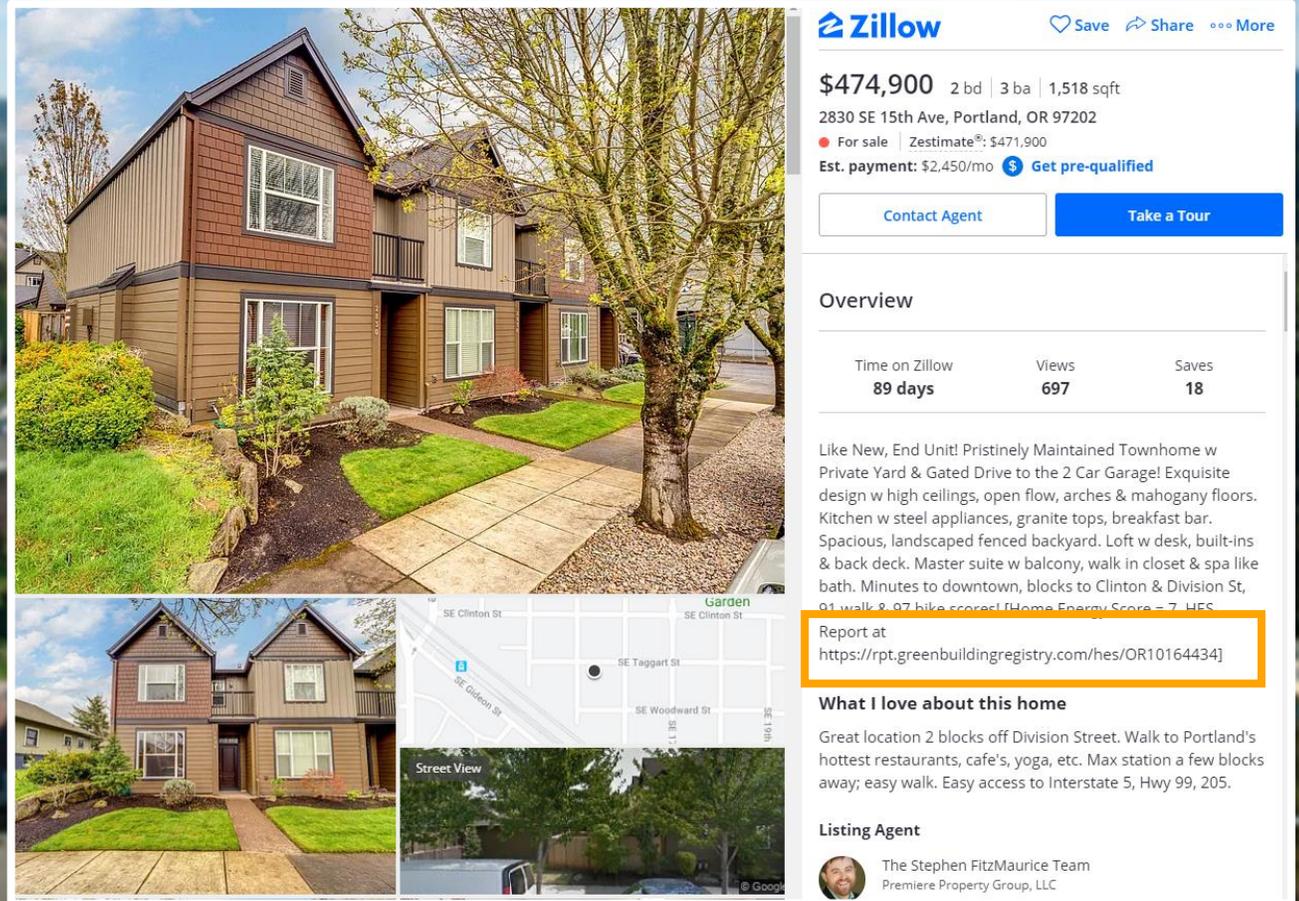
- Partnership with ODOE and US DOE
 - ODOE ensures Quality Assurance and Score quota requirements from US DOE are met
- Earth Advantage is the current ODOE contractor to perform HES QA, training, and database management
 - Rigorous assessor training and certification process



What would a Home Energy Score program look like in Milwaukie?

Program Overview:

- Mandatory disclosure of Home Energy Report and Score at or before time of listing
- Seller or homebuilder are regulated parties
- Home Energy Report and Scorecard displayed on all public listings and open houses



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What would a Home Energy Score program look like in Milwaukie?

Buildings that need a score:

- Single family detached homes, townhomes, rowhouses
 - *Own space from floor to roof*
- Listed as a residential property

Exceptions:

Mobile homes, detached ADUs, stacked condos, commercial properties



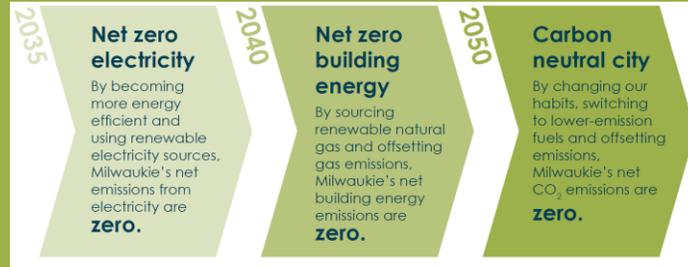
Portland's Home Energy Score Program

- Started January 1, 2018
- 65% compliance in first year
 - No fines imposed to-date due to focus on education and outreach
 - Fines beginning Summer/Fall 2019
- Over 9,000 homes scored in first year
- Average home scored 4.6
 - Retrofit HES change ~3 points to ~7



Home Energy Scores and Milwaukie

Will help us meet our climate goals



Assuming 20% of homes make suggested retrofits....

- 140 Homes / year
- 1,476 MMBtu energy savings / year
- 81 Tons of CO₂ / year
- 2,430 Tons of CO₂ by 2050 with stagnant growth/sale rate

HOME ENERGY LABELING PROGRAM: IMPACT CALCULATOR - V2

City: State:

This tool is meant to be a starting point for determining the impacts of a home energy labeling program in your city. Resources linked in Column F are intended to supplement your city's own data and available resources to help you identify necessary inputs. Note that results summarized reflect year 1 of a mandatory compliance requirement. Many of the metrics used for this calculation (e.g. electricity rates or grid carbon intensity) must be modeled year-to-year for longer-term impact estimates.

Year 1 Results Summary	
Homes Rated	698
Minimum Energy Raters Required	3
Homes Retrofitted	140
Energy Savings (MMBtu)	1,476
Energy Cost Savings	\$34,114
Carbon Reduction (tons CO ₂)	81
Increased Real Estate Value	\$1,504,291 <small>(applies to Time of Sale and Time of Listing only)</small>

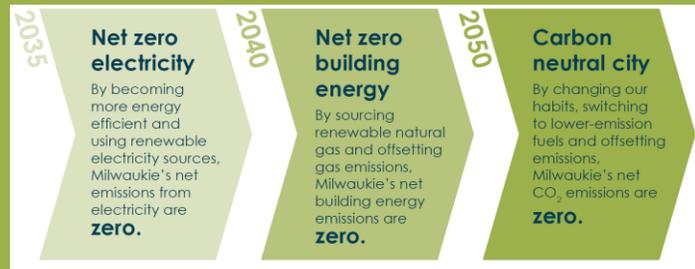
Input Assumptions
Assumptions and recommended sources are detailed - cities can use those sources or define their own values through internal data and local outreach. This spreadsheet was last updated June 2019.

Key Policy Parameters	Units	Comments	Resource
Triggering Mechanism Existing Buildings or New Construction?	<input type="text" value="Time of Listing"/> Both	Drop-down menu. Drop-down menu.	-
Number of Eligible Homes		Comments	Resource
Occupied Housing Units	<input type="text" value="8,952"/>	Use resource linked to the right, enter city name under "Community Facts", select "2017 Census Selected Housing Characteristics" under the "Housing" tab, and search for "occupied housing units".	Census Fact Finder
Total New Building Permits	<input type="text" value="19"/>	Search for "building permits" in resource linked to the right. Not a necessary input if new homes are to be exempted from the policy.	2018 Census Housing
Owner Occupied Rate	<input type="text" value="59.2%"/>	Search for "owner-occupied housing unit rate" in resource linked here >>>	2018 Census Housing
Home Listings	<input type="text" value="963"/>	Use the resource linked to the right, select "New Listings", select your city, and define this number based on the past 12 months of available data.	Reform Data Center
Home Sales	<input type="text" value="906"/>	Use the resource linked to the right, select "Home Sales", select your city, and define this number based on the past 12 months of available data.	Reform Data Center
Rental License Renewal Period	<input type="text" value="1"/>	This is the time period that a rental license lasts before required renewal, when a time of rental policy would be triggered. Not a necessary input except for Time of Rental policies.	-
% Rentals Exempt	<input type="text" value="20%"/>	Rough approximation. Value largely dependent on program design to address equity concerns. Not a necessary input except for Time of Rental policies.	-
% Owner-Occupied Homes Exempt	<input type="text" value="5%"/>	Rough approximation. Value largely dependent on program design to address equity concerns.	-
Assumed Compliance Rate	<input type="text" value="85%"/>	Rough approximation. Value largely dependent on compliance mechanisms and timeline.	-
Assessors Required		Comments	Resource
Peak Monthly Listings	<input type="text" value="119"/>	Use the resource linked to the right, select "New Listings", select your city, and define this number based on the single-month peak identified from the past three years.	Reform Data Center
Peak Monthly Sales	<input type="text" value="117"/>	Use the resource linked to the right, select "Home Sales", select your city, and define this number based on the single-month peak identified from the past three years.	Reform Data Center
Monthly Assessment Rate	<input type="text" value="40"/>	Assessments Per Assessor Minimum 20 work days (4-5) per month, two assessments performed per day.	-
Energy Impacts		Comments	Resource
Assumed Retrofit Rate - Owner Occupied	<input type="text" value="20%"/>	Rough approximation. Other jurisdictions have shown retrofit conversion rates from labeling policies ranging from 7% to 37%. See slide 12 of the linked resource for a summary.	Slide 10 here
Assumed Retrofit Rate - Rentals	<input type="text" value="10%"/>	occupied rate given owner/renter split incentives without rental efficiency standards to require upgrades.	-
Assumed Energy Savings Upon Retrofit	<input type="text" value="20%"/>	Rough approximation. 10% to 30% savings per home is often achievable through cost-effective measures.	-
Annual Electricity Consumption (By Household)	<input type="text" value="9.88"/>	Use the resource linked to the right, scroll to "Electricity Usage", and click the "Per Household/Establishment" button, and hover over the chart to identify.	SLED
Annual Natural Gas Consumption (By Household)	<input type="text" value="18.44"/>	Use the resource linked to the right, scroll to "Natural Gas Usage", click on the "Per Household/Establishment" button, and hover over the chart to identify.	SLED
Electricity Rate	<input type="text" value="\$0.1052"/>	Use the resource linked to the right, rates are shared near the top. Select the residential rate.	SLED
Natural Gas Rate	<input type="text" value="\$7.73"/>	State average rate.	SLED
Carbon Emission Rate - Electricity	<input type="text" value="310.0"/>	Auto-populated state or national average based on cell C4. Cities can work with utility representatives to hone the assumption.	eGRID
Carbon Emission Rate - Natural Gas	<input type="text" value="14.5"/>	ADHP&E Standard 105 - National Average. This input does not vary by location.	-
Home Valuations		Comments	Resource
Average Home Value	<input type="text" value="\$269,300"/>	Use resource linked to the right, enter city name, select "2017 Selected Housing Characteristics" under the "Housing" tab, and search for "median (median)".	Census Fact Finder
Value Increase for Retrofitted Homes	<input type="text" value="4%"/>	A 4% valuation increase is typically identified. A summary of relevant research is provided in the HELP cohort's Deep Dive Part 1 slide deck (slide 19 - "New Value for Homeowners").	-

Earth Advantage and Rocky Mountain Institute
HES Impact Calculator

Home Energy Scores and Milwaukie

Will help us meet our climate goals

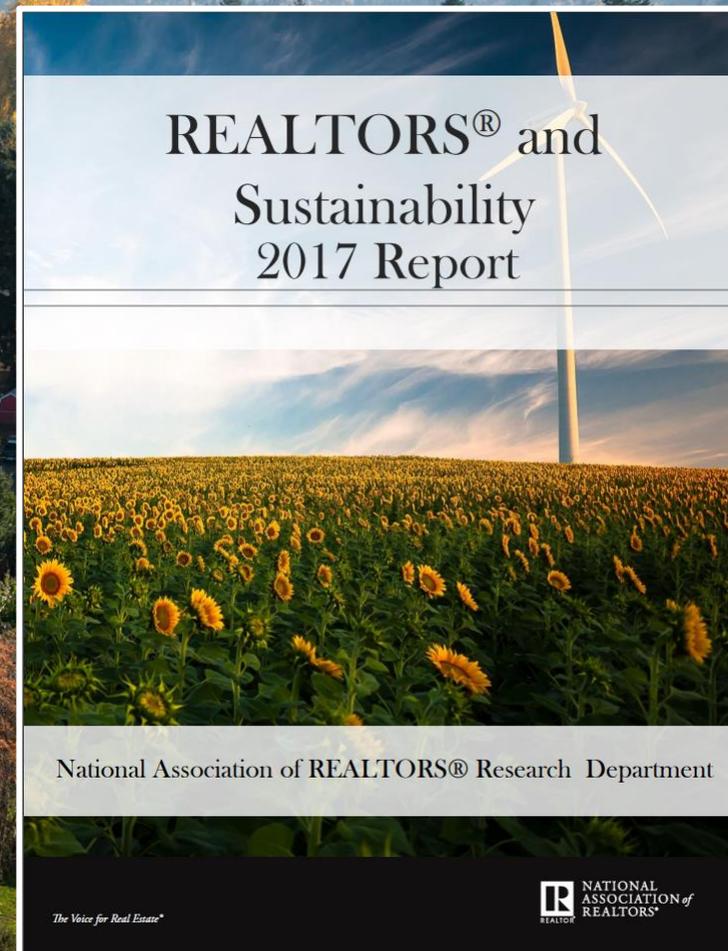


Increases understanding of the potential energy use and cost of a home



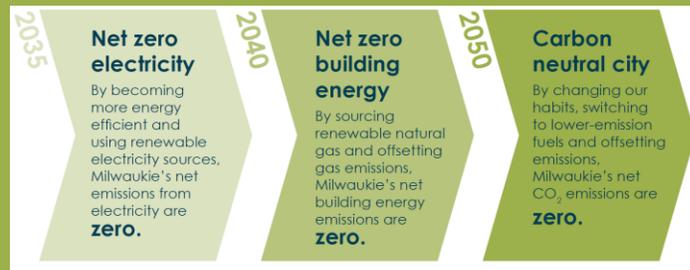
According to National Association of Realtors 2017 Sustainability Report:

- 71% of realtors said energy efficiency promotion in listings was important to clients
- 79% of realtors said utility bill costs are important to clients
- **39% of realtors said they were not comfortable explaining home performance to clients**



Home Energy Scores and Milwaukie

Will help us meet our climate goals



UD DOE literature review found:

2% to 6% premium for designated energy efficient homes

Sold 18-89 days faster than non-designated homes

Hill et al., 2016: Homebuyers appreciate having more information, **poor ratings don't discourage home purchases but do inform energy upgrades**

Increases understanding of the potential energy use and cost of a home



Can drive the market for energy efficient homes

