EPS
EnergyPerformanceScore
brought to you by Energy Trust of Oregon

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

EPS™ is an energy performance score that measures and rates the energy consumption and carbon footprint of an existing home. The lower the score, the better—a low EPS identifies a home as energy efficient with a smaller carbon footprint and lower energy costs.

123 Example St
Eugene , OR 97405

YEAR BUILT: 1975
SQ FOOTAGE: 2000
EPS ISSUE DATE: 02-14-2015
RATED BY: Premium Efficiency
CCB#: 167994

Gas: NW Natural
Electric: EWEB

Estimated Monthly Energy Costs

$134*

Estimated average annual energy costs:
$1,606*

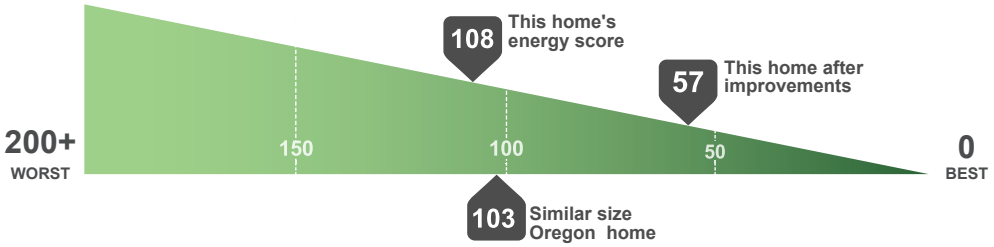
Estimated average energy costs per month: Electric $65, Gas $69
Estimated Energy Costs calculated using $0.07 per kWh and $0.98 per therms

Energy Score

108

ENERGY SCALE:

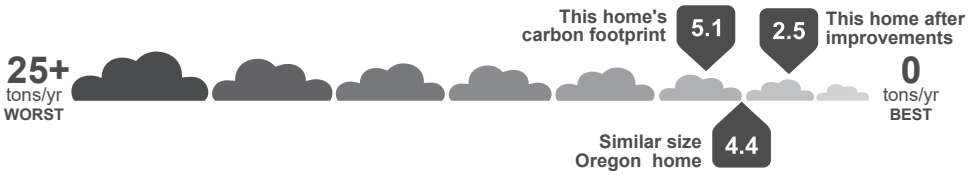
Based on home energy use of natural gas, electricity, or energy generated from an installed renewable system.



Estimated total annual energy usage: Electric(kWh) 11,130, Gas(therms) 844
Estimated average annual energy generation: no systems
Estimated average net energy usage: Electric(kWh) 11,130, Gas(therms) 844

CARBON FOOTPRINT:

Measured in tons of carbon dioxide per year (tons/yr). One ton ≈ 2,000 miles driven by one car (typical 21 mpg car).



Estimated average carbon footprint: Electric(tons/yr): 0.6, Gas(tons/yr): 4.5

*Actual energy costs may vary and are based on many factors such as occupant behavior, weather and utility rates. A home's EPS takes into account the energy-efficient features installed in the home on the date the EPS was issued, but does not account for occupant behavior.

PRELIMINARY

EnergyTrust of Oregon

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

+ Energy-efficient features that contribute to this home's score:

Attic Insulation: Partial

Envelope Tightness: 4100 cfm50

Space Heating: Furnace - Standard

Wall Insulation: Insulated

Windows: Double Pane

Water Heating: Tank Standard

Floor Insulation: None

Lighting: 50% Efficient

What was considered in developing this score?

A home's EPS is based on the energy-efficient features listed above, as well as the home's size and specific design. Improvements, additions and updates made to the home after the issue date of this score sheet may change the energy score, carbon footprint and estimated energy costs for this home. EPS does not factor in occupant behavior, and as a result, your actual energy costs may vary.

USEFUL TERMINOLOGY

Energy-efficient features

R-Value: Rates the efficiency of insulation; a higher R-Value signals improved performance of ceiling, wall and floor insulation.

U-Value: Indicates the rate of heat loss in windows; a lower U-Value demonstrates the effectiveness of a window, resulting in a more comfortable home.

CFM50: Measures air leakage in Cubic Feet per Minute at 50 Pascals; this measurement is taken during a blower door test. The higher the measurement number, the more likely there is a high rate of air leakage occurring in your home.

EF: Energy Factor for water heaters or appliances; the higher the EF, the more energy efficient the model.

Energy score

A home's EPS is shown on an energy scale that ranges from zero to 200+ and is based on home energy use of natural gas, electricity, or energy generated from an installed renewable system

Carbon footprint

A home's energy consumption affects carbon emissions and impacts the enviroment. The carbon calculation for EPS is based on emissions from the utility-specific electricity generation method and natural gas consumption of the home at the time of this report.

Similar size Oregon home

Energy: The energy consumption of an average Oregon home of similar square footage, heating type and geographical region.

Carbon: The carbon footprint of an average Oregon home of similar square footage, heating type, geographical region and utility mix.

Brought to you by Energy Trust of Oregon

Energy Trust developed EPS to educate about energy efficiency and provide a tool to help inform energy-efficiency improvement decisions.

For more information about EPS, contact Energy Trust at **1.866.368.7878** or visit **www.energytrust.org/eps**.

EnergyTrust of Oregon

Energy Trust of Oregon 421 SW Oak St, Suite 300, Portland, Oregon 97204 1.866.368.7878 503.546.6862 *fax* **energytrust.org**

ENERGY ANALYSIS REPORT

CAKESYSTEMS

Date: 2/17/17
Reference Number: ETO036541
Address: Sample Report
123 Example St
Eugene , OR 97405

Contents

Annual Estimated Energy Use and Fuel Costs

	Current Home			After Upgrades		
	Energy (mmBtu)*	Fuel Cost†	Carbon (tons)	Energy (mmBtu)*	Fuel Cost†	Carbon (tons)
Heating	82	$805	4.4	36	$351	1.9
Cooling	4	$88	0.1	1	$28	0.0
Water Heating	10	$209	0.2	6	$126	0.1
Lighting & Appliances	26	$505	0.5	21	$415	0.4
Total (Rounded-off)	122‡	$1,606	5.1	65	$920	2.5

*All energy forms are converted to their energy equivalents, expressed in million Btu's (mmBtu).
†Fuel costs are based on prices at the time this report is issued and do not include taxes and surcharges.
‡Total Annual Estimated Energy Use is rounded to the nearest 1 mmBtu.

Comparing Your Utility Bills with the Energy Performance Estimate

You can determine how your household's energy use compares to the estimated average use for your home by comparing the energy totals on your utility bills with the Energy Performance Estimate.

To calculate your actual annual energy use, you will need to know the amount of energy that you used for each fuel type in your home for a full year. This information is available on your utility bills. The formulas on the back of the Energy Performance Estimate will allow you to convert combustion fuels to MMBTU. The energy use Estimate should be compared to the annual totals of all fuel types.

If the totals from your utility bills are:

- lower than the Energy Estimate, you are using less energy than would be average for your home. Reasons for this may include housing fewer people than would be average in this home, and/or the occupants of this home are using energy more conservatively than is typical.
- similar to the Energy Estimate, you are using a typical amount of energy for the condition of your home.
- higher than the Energy Estimate, you are using more energy than average for your home. Reasons for this may include housing more people than would be average in this home, and/or occupants in this home are using more energy than is typical. There may be no- and low-cost ways that you can use to save energy.

Bedrooms: 3
Year Built: 1975
Audit Date: 02/14/2015
Auditor Premium Efficiency
Erdmann, Zach

SIMPLE Energy Algorithm v0.9.12.6

Summary of Energy Performance Related Elements

Element	Description	Notes	Current Performance Very Poor • Poor • Average • Good • Excellent
Air Leakage How tight your home is against air leaks.	Major leakage areas include: Attic hatch, Crawl space doors, Recessed lights, Electrical outlets	Leakage areas: Recessed can lights, attic/crawl penetrations, missing weatherstripping on attic/crawl hatch. Attic sealing will give most savings.	Poor
Ceiling and Attic The amount of insulation above the ceiling or in the roof.	Poorly installed insulation, Blown in, Fiberglass	Attic insulation has been trampled. All air sealing should be completed before insulation is installed. Recommend additional ventilation installed.	Average
Ducts How well sealed and insulated are the ducts.	Not Insulated, Metal ductwork, Not Sealed	Ducts not sealed and poorly insulated. Disconnected duct to master bath. Sealing leaks at plenum will result in biggest savings. Wrap R-11 once sealed	Very Poor
Walls The amount of insulation inside the walls.	Batts, 2x4	Walls are assumed insulated with R-11 fiberglass batts. IR camera found no major deficiencies with wall insulation.	Good
Floors/Foundation Walls The amount of insulation below the floors.	No insulation, Crawlspace	Floor is currently not insulate. No vapor barrier in crawl. All floor penetrations should be sealed before insulation and vapor barrier is installed.	Very Poor
Windows The insulation value of the windows.	Double pane, Metal frame	Metal framed windows are also a building shell leak. New windows will increase comfort, save money and increase value of home.	Average
Water Heating How efficient and insulated is the hot water system.	Electric, Storage tank, Pipes not insulated	Electric water heater in unconditioned garage. Consider upgrading to heat pump water heater when replacing unit.	Average
Lights and Appliances How efficient are the lighting and appliances.	50% CFLs/LEDs	Roughly half of lighting in incandescent. Recommend upgrading to all LED lighting. Recommend upgrading older refrigerator to ENERGY STAR model.	Average
Heating How efficient is the heating system.	Gas, Furnace, 80%+ efficient	Furnace is at or near end of expected life. Recommend upgrading to condensing furnace when replacing.	Average
Cooling How efficient is the cooling system.	Air conditioner	AC unit is at or near end of expected life. Recommend upgrading to high efficiency unit when replacing.	Poor

General Notes

- ADDITIONAL HOME PERFORMANCE RELATED INFORMATION -

Heating System Pressure Imbalance:
The duct system has supply ducts to all rooms but only one common cold air return located in the upstairs hallway. When bedroom doors are closed the rooms become positively pressurized and the common area depressurized. Positive pressures in bedrooms can push moist air into building cavities and cause moisture related issues inside wall cavities, reduce air flow to the rooms and make the furnace fan work harder. The negative pressures found in the common living area with fireplace may result in back-drafting of fireplace. To alleviate the pressure imbalances pressure relief to bedrooms should be installed.

Examples of pressure relief include installed ducted returns to all bedrooms, passive return grills from bedrooms to common area or undercutting doors by two inches. Pressure relief to bath or laundry rooms in not recommended.

Mechanical Ventilation:
The bath exhaust fans were inspected and tested for flow. Bathrooms with bathing facilities (tub or shower) should have fans that move a minimum of 70 cfm. Inspector recommends all fans are controlled by count down timers or humidity/occupancy controls to encourage proper run times to remove bulk moisture from bathrooms. Removing bulk moisture from these high humidity areas will help to prevent moisture related issues in home and promote healthy indoor air quality.

Master Bath Fan Flow: 50cfm
Shared Bath Fan Flow: 35cfm

Bath fan ducting for fans is comprised of flexible ducting that is not sealed to the exterior. When bath fan ducting is not sealed to the exterior of attic moisture related issues such as mold and structural damage can occur. Inspector recommends all fans are ducted with rigid metal ducting wrapped in insulation (to prevent condensation build up) and sealed to exterior with appropriate dampered terminations.

Kitchen Range Hood:
The kitchen exhaust range hood is re-circulation only. Moisture and contamination from cooking are not exhausted to the outside. Inspector recommends that the range hood is ducted to the outside to remove moisture and contamination, and promote healthy indoor air quality.

It is highly recommended that the fans are upgraded to improve how the house performs and promote healthy indoor air quality. This is even more important if whole house air sealing is performed. Removing moisture and contaminates is critical to maintaining healthy indoor air quality.

Attic Ventilation:
Attics should be properly ventilated to remove moisture and heat from attic spaces. The baffles for soffit vents were found to be clogged with blown in insulation. There is not enough roof vents for size of attic. Inspector recommend removing insulation from baffles and installing additional roof vents for proper ventilation.

Energy Analysis Report

Summary of Recommended Energy Upgrades

These recommended upgrades will improve the energy performance of this home. The cost for the upgrades will vary with the size and complexity of the home and the scope of work required. The Approximate Annual Savings are based on the estimated energy reductions with each upgrade.

	Notes	Approximate Annual Savings	
		$	mmBtu
Air Sealing	Reduce air leakage rate below .35 ACHn and install mechanical ventilation.	$124	12
Attic / Ceiling Insulation	Insulate attic to R-49.	$97	9
Duct Sealing	Seal all seams and joints on ductwork and plenum with mastic paste.	$71	6
Duct Insulation	Wrap ducts with fiberglass insulation.	$62	6
Wall Insulation			
Floors / Foundation Walls	Fully insulate floor joist cavity with fiberglass or cellulose (Savings assumes R30).	$85	8
Windows	Upgrade to high efficiency windows.	$26	1
Water Heater Upgrade	Install a heat-pump water heater.	$87	3
Solar Water Heater			
Appliances	Replace refrigerator with an ENERGY STAR refrigerator., Replace all light bulbs with CFLs/LEDs.	$69	2
Heating System Upgrade	Upgrade to condensing gas furnace (Primary HVAC System)	$60	6
Cooling System Upgrade	Upgrade to a newer ENERGY STAR air conditioner with SEER of 14 (Primary HVAC System)	$12.67	0
Solar PV			

Financial Incentives

See web site for more sources of financial assistance.

See http://www.dsireusa.org/ for incentives in your area.

DSIRE is a comprehensive source of information on state, local, utility and federal incentives and policies that promote renewable energy and energy efficiency. Established in 1995 and funded by the U.S. Department of Energy, DSIRE is an ongoing project of the N.C. Solar Center and the Interstate Renewable Energy Council.