

**Eugene  
Water and Electric  
Board**

***May 23, 2023***

# This Presentation Covers:

- ▶ A way to describe a home's energy efficiency: Home Energy Score
- ▶ A summary of the homes that are participating in the Bethel Clean Energy project
- ▶ EWEB's rebate and loan offerings for energy efficiency, water efficiency, and resiliency



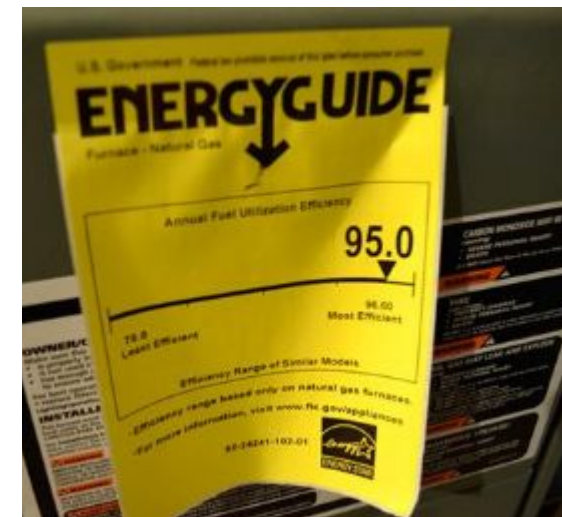
# Why Does EWEB Care About Energy Efficiency?

- ▶ Conservation is cheaper than new power plants
- ▶ For more than 40 years, the Eugene Water & Electric Board has been a leader in promoting strong and innovative conservation programs.
- ▶ Improving residential energy efficiency helps to:
  - ▶ Improve comfort & save families money on energy bills
  - ▶ Reduce wasted energy & carbon emissions
  - ▶ Foster growth of energy efficiency jobs in local economy
  - ▶ Mitigate health impacts of homes, including mold, allergens, and pests



# A Way to Provide Energy Information: Home Energy Score

- US Department of Energy developed the Home Energy Score in ~2016 (EWEB is a partner)
- A “miles-per-gallon” rating for homes
- An affordable, reliable, & easy way to understand a home’s energy performance
- EWEB made modifications for flexibility
  - ▶ Encourages clean electricity
  - ▶ Allows for remote assessments
  - ▶ Allows for manufactured homes, apartments





# Home Energy Score: What It Means

- ▶ The Score is more useful than looking at prior utility bills
  - ▶ Assumes average weather for that location
  - ▶ Controls for impacts due to occupant behavior by assuming "average" behavior for all homes
  - ▶ Score of 1: High energy costs, expected to use more energy each year than 85% of U.S. homes
  - ▶ Score of 5: Average energy costs, ~50% of homes in the U.S. use less energy
  - ▶ Score of 10: Low energy costs, expected to use less energy than 90% of U.S. homes

▶ Score with Improvements: Reflects how home will score if cost-effective efficient improvements are made

**EWEB HOME ENERGY SCORE**  
Know the score. Outsmart energy waste.

**U.S. DEPARTMENT OF ENERGY**  
THIS HOME'S SCORE: **2** OUT OF 10  
THIS HOME'S ESTIMATED ENERGY COSTS: **\$1,765** PER YEAR

**Better Buildings Home Energy Score**  
Your home's current score: **2**  
Uses more energy: 1 2 3 4 5 6 7 8 9 10 Uses less energy

**HOME PROFILE**  
LOCATION: 123 Main St, Eugene, OR, 97401  
YEAR BUILT: 1964  
HEATED FLOOR AREA: 789 sq. ft.  
NUMBER OF BEDROOMS: 2

**ASSESSMENT**  
ASSESSMENT DATE: 1/27/2019  
EXPIRATION DATE: 1/27/2027  
ASSESSOR: Marie Curie, EWEB  
PHONE: 541-685-7000  
EMAIL: rentals@eweb.org  
CCB LICENSE #: (Public institution, exempt from licensure)

**HOW MUCH ENERGY IS THIS HOME LIKELY TO USE?**  
Electric: 16,698 kWh ..... \$1,765  
Natural Gas: 0 therms/yr ..... \$0  
Other: 0 gal/yr ..... \$0  
TOTAL ENERGY COSTS PER YEAR: **\$1,765**

**THIS HOME'S CARBON FOOTPRINT:**  
as measured in metric tons of CO2 equivalent per year  
This Home: **0.31**  
Worst: 8+ Best: 0

**Score today: 2** | **Score with improvements: 9** | **Estimated energy savings with improvements: \$777 per year** | **Estimated carbon reduction with improvements: 44%**

| FEATURE              | TODAY'S CONDITION                        | RECOMMENDED IMPROVEMENTS   |
|----------------------|--|--|
| Attic insulation     | Ceiling 1: Vaulted, R-0; Ceiling 2: R-11 | Add attic insulation to R-49 as space allows                               |
| Floor insulation     | R-21                                     | -  |
| Wall insulation      | R-11                                     | -  |
| Envelope/Air Sealing | Not professionally air sealed            | Have the home professionally air sealed                                    |
| Windows              | Double-pane wood or vinyl                | -  |
| Skylights            | None                                     | -  |
| Heating system       | Baseboard, Electric                      | Install an efficient heat pump   |
| Cooling system       | No Cooling                               | -  |
| Duct insulation      | No ductwork                              | -  |
| Duct sealing         | No ductwork                              | -  |
| Water heater         | Electric storage                         | Install a heat pump water heater   |
| Solar PV             | None                                     | Visit <a href="http://bit.ly/EWEBsolar">bit.ly/EWEBsolar</a> for more info |

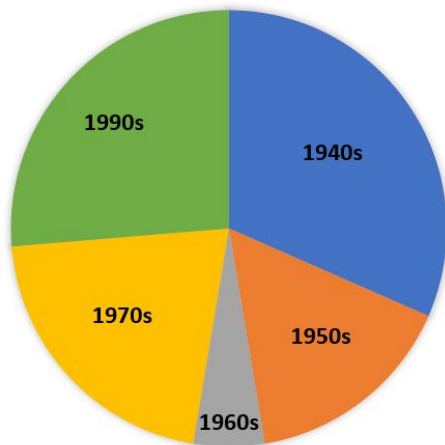
See EWEB website for example report:

[http://www.eweb.org/documents/energy\\_efficiency/home-energy-score-compare-scorecard.pdf](http://www.eweb.org/documents/energy_efficiency/home-energy-score-compare-scorecard.pdf)

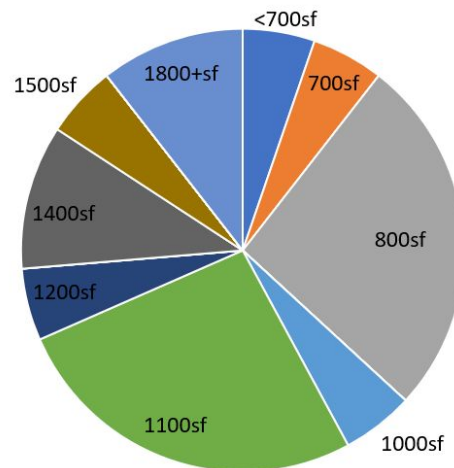
# What are the participating homes like?

A variety of homes:  
Mostly older (average year built=1967)  
Modestly-sized (average size=1154sf)  
Mostly electric heat, ~a third using electric resistance heat

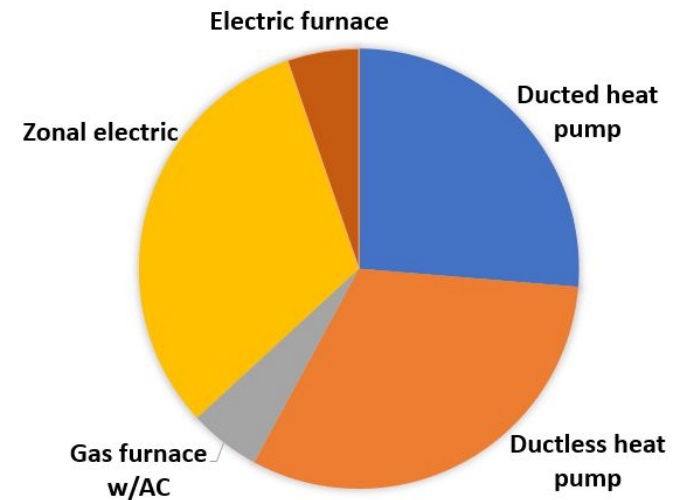
AGE OF HOMES



Home Sizes



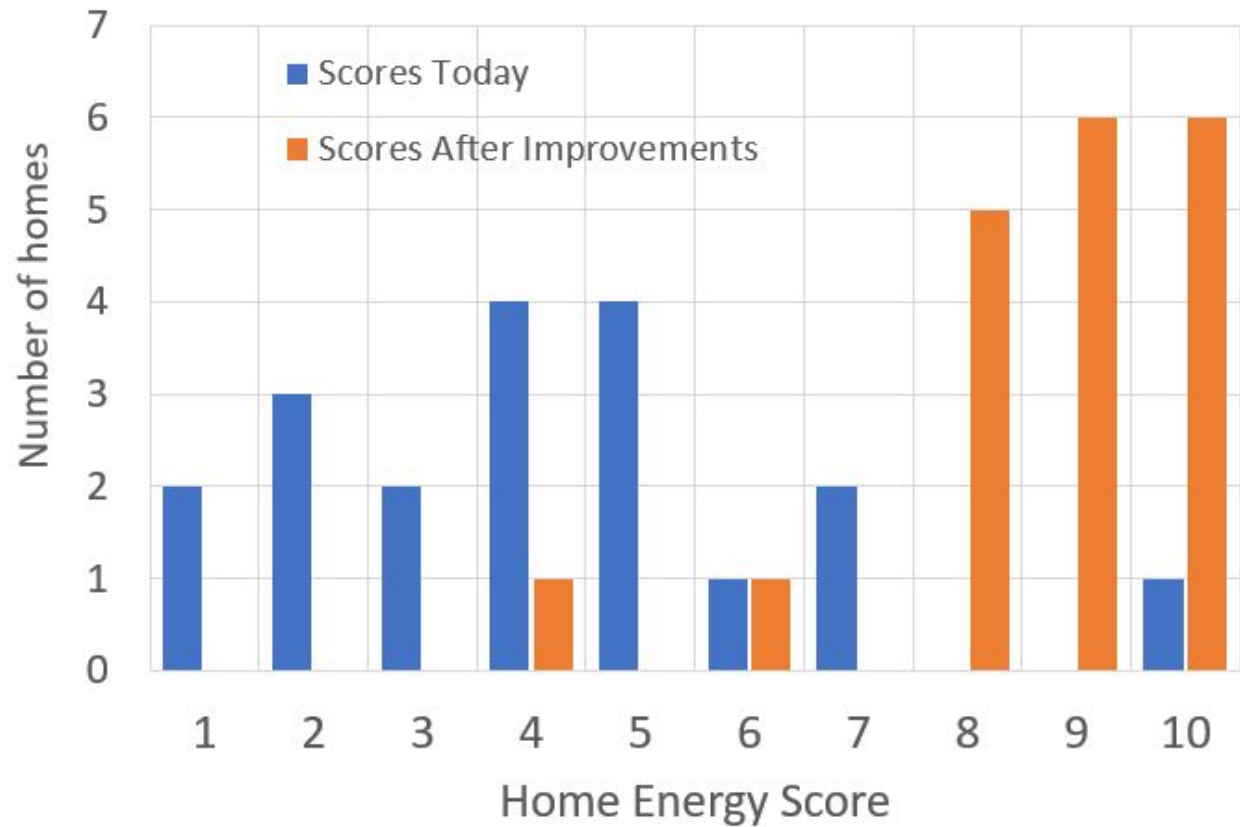
HEATING SYSTEM TYPES



# How did participating homes score?

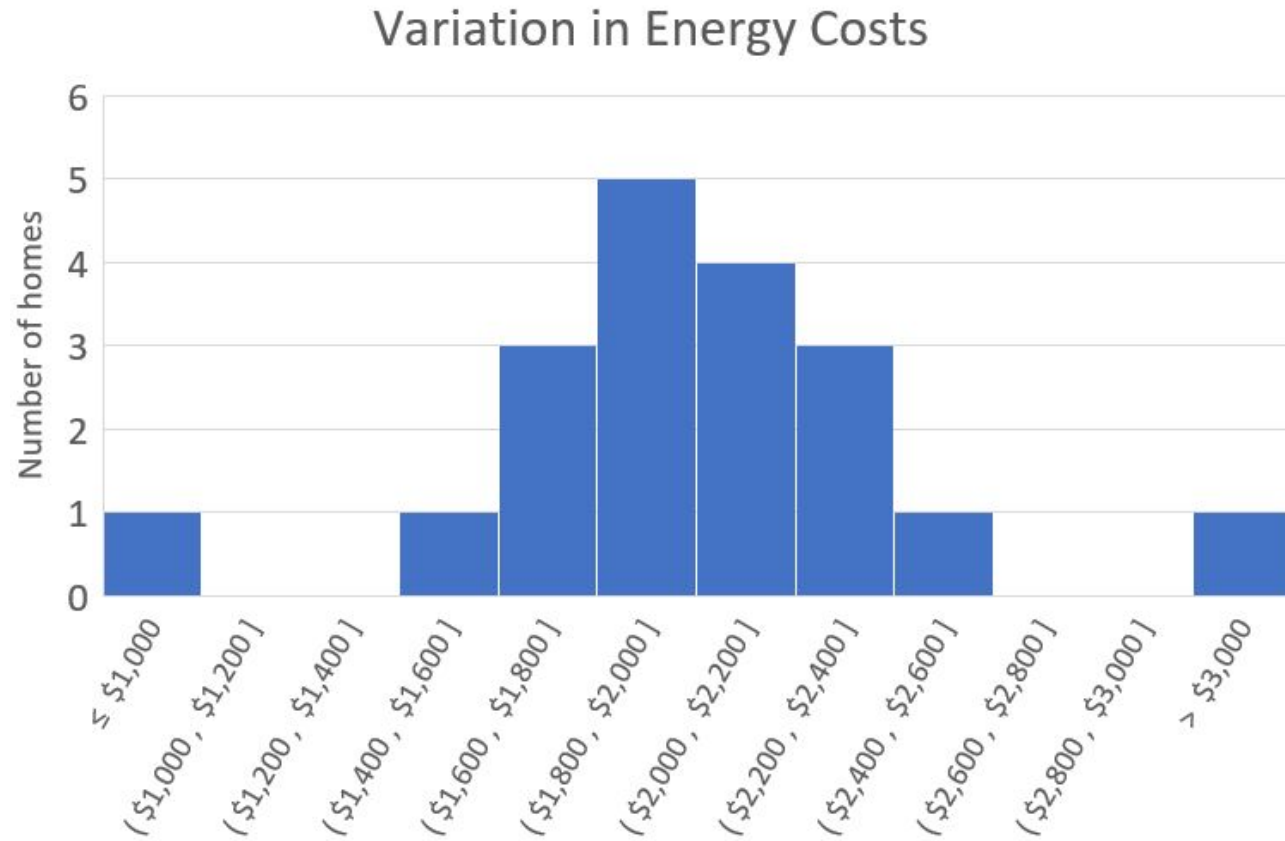
The average score was 4.2 in this group of homes. If improvements are made, the average score would be 8.6

## Variation in Home Energy Scores



What are the annual energy costs for participating homes?

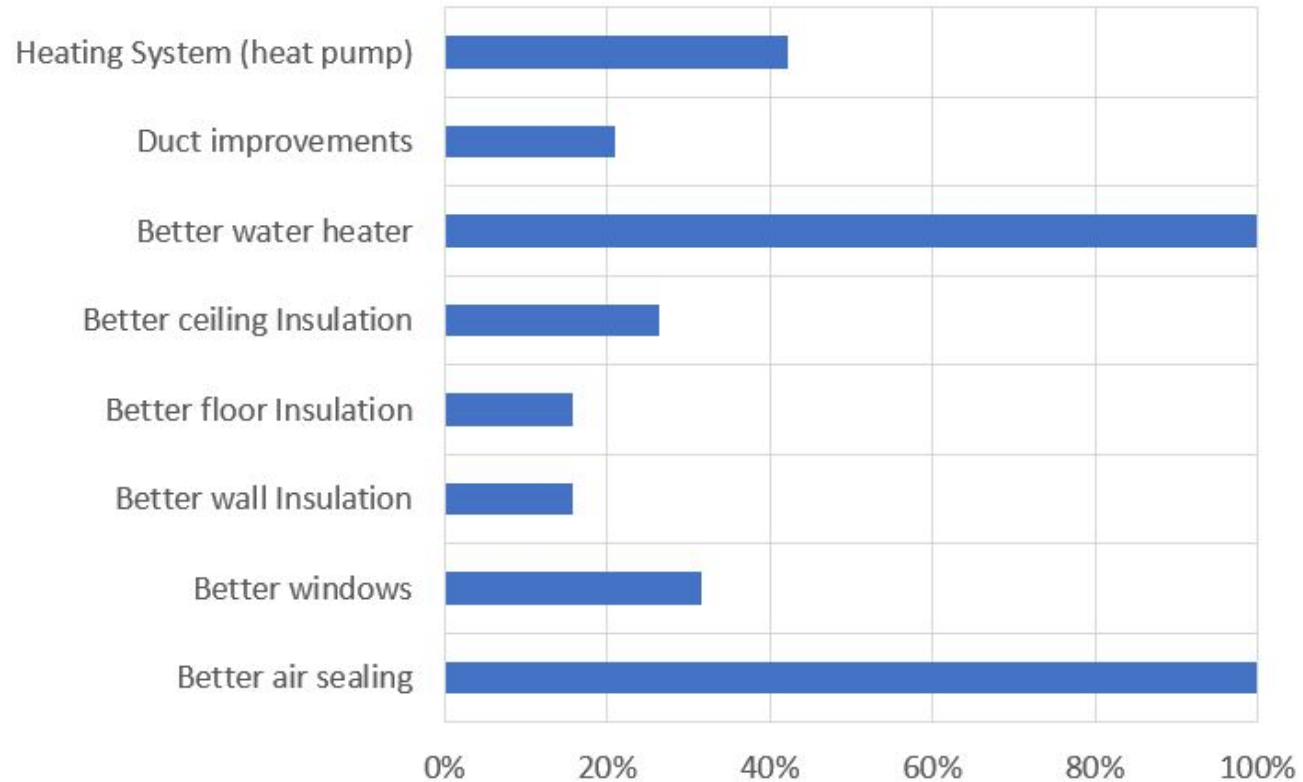
Annual energy costs range from \$298-\$3288/yr with an average of \$1953/yr





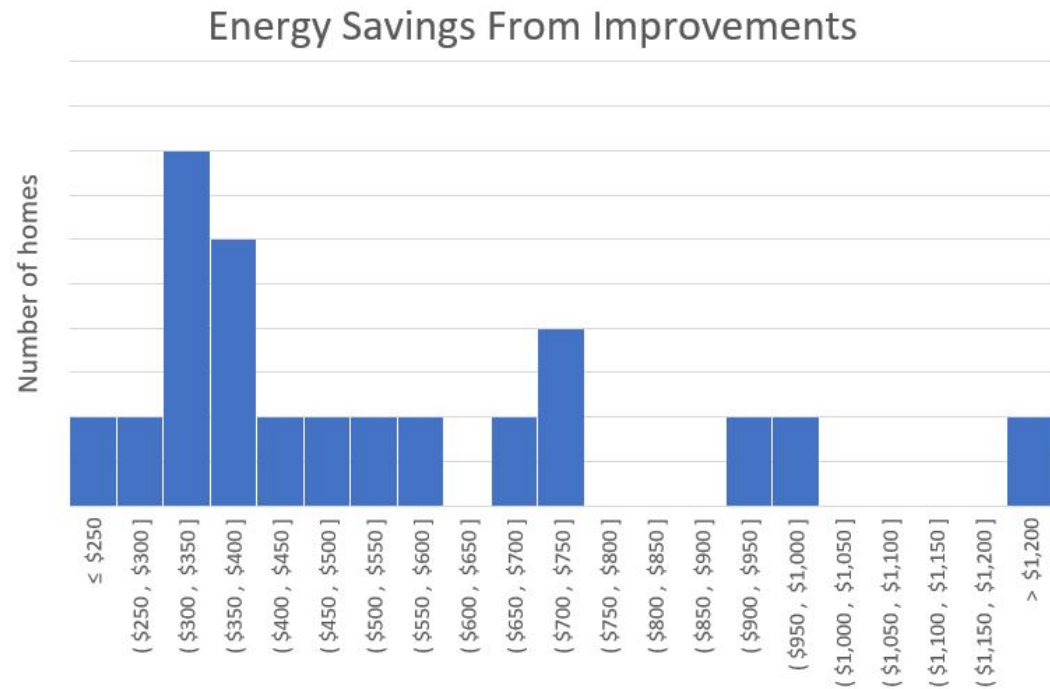
What energy improvements are recommended?

## Recommended Energy Improvements



How much energy would be saved?

Annual savings range from \$237-\$1729/yr, with an average of \$564/yr



# EWEB can help with the costs of improvements

- Rebates or 0% interest loans
- Additional funding for limited income households

