

# Score Program - 2021

July 2021

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## Overview

The Score Program supports home energy efficiency in Eugene, OR. Its primary means of meeting this goal is to provide low-income residents and rental properties in the EWEB service territory free energy efficiency assessments for their homes. Both this year and last, students have also engaged in research, writing, and support projects, changes made due to the COVID-19 pandemic. The program is a partnership between Eugene Water and Electric Board (EWEB), the City of Eugene, and the University of Oregon Office of Sustainability.

EWEB worked as the technical lead, selecting and updating the assessment tool, providing technical expertise to student assessors, giving students access to resources needed to conduct the assessments, and funding non-labor program management expenses. EWEB also sources clients by promoting the program to their rental customers. The City of Eugene rolled over \$9,000 from remaining years' funds to pay exclusively for student labor via a separate contract with the university. UO Sustainability provided program management, including supervising three student workers and tracking progress toward program goals.

## Staff Recruitment and Training

University of Oregon program lead Sarah Stoeckl recruited three students during fall quarter of 2020 to work in the Score program. They included one Architecture undergraduate, Caleb; one Planning, Public Policy, and Management (PPPM) undergraduate, Grace (our rock star returner from last year); and one PPPM master's



student, Hannah. Continued recruitment from PPPM and Architecture will be good sources for strong student employees. Caleb, the new assessor, completed the USDOE building science prerequisite training and exam (2-6 hours), but did not need to do the DoE training or receive a CCB license due to the COVID-related changes to the program this year.

## COVID-19 and 2021 Program Impacts

This year the pandemic meant we could not conduct in-home assessments. However, EWEB lead Matt Lutter created a bespoke assessment tool that could generate reports remotely. The two student assessors, Grace and Caleb, used public records data, thoughtful assumptions, and information directly from clients to generate reports.

Doing remote assessments ended up having some positive outcomes. Even though we only hired two student assessors this year (compared to a program high of nine), Grace and Caleb were able to do a relatively high amount of assessments because of the comparative speed of doing them remotely. **They completed 70 assessments in 2021, which equates to 59% more homes assessed per employee compared to 2019 numbers.** We also had a higher response rate, perhaps due to clients not needing to do much to receive the assessment, and were able to assess apartments because we were not using the official DoE HES tool, which does not work for most multi-family properties.

It is possible that the remote assessments are not as accurate as in-person assessments due to data limitations, but the majority of them should be comparable. The tools themselves perform about the same. In comparing them, EWEB's analysis is that the in-house tool generates scores on a scale of 1-10 that were the same as or no more than 1 score different than the DoE's score 92% of the time. Last, while Grace and Caleb did not get the in-person experience of assessing properties, they did gain valuable skills in research, client engagement, and remote collaboration and working skills, for an overall positive experience.

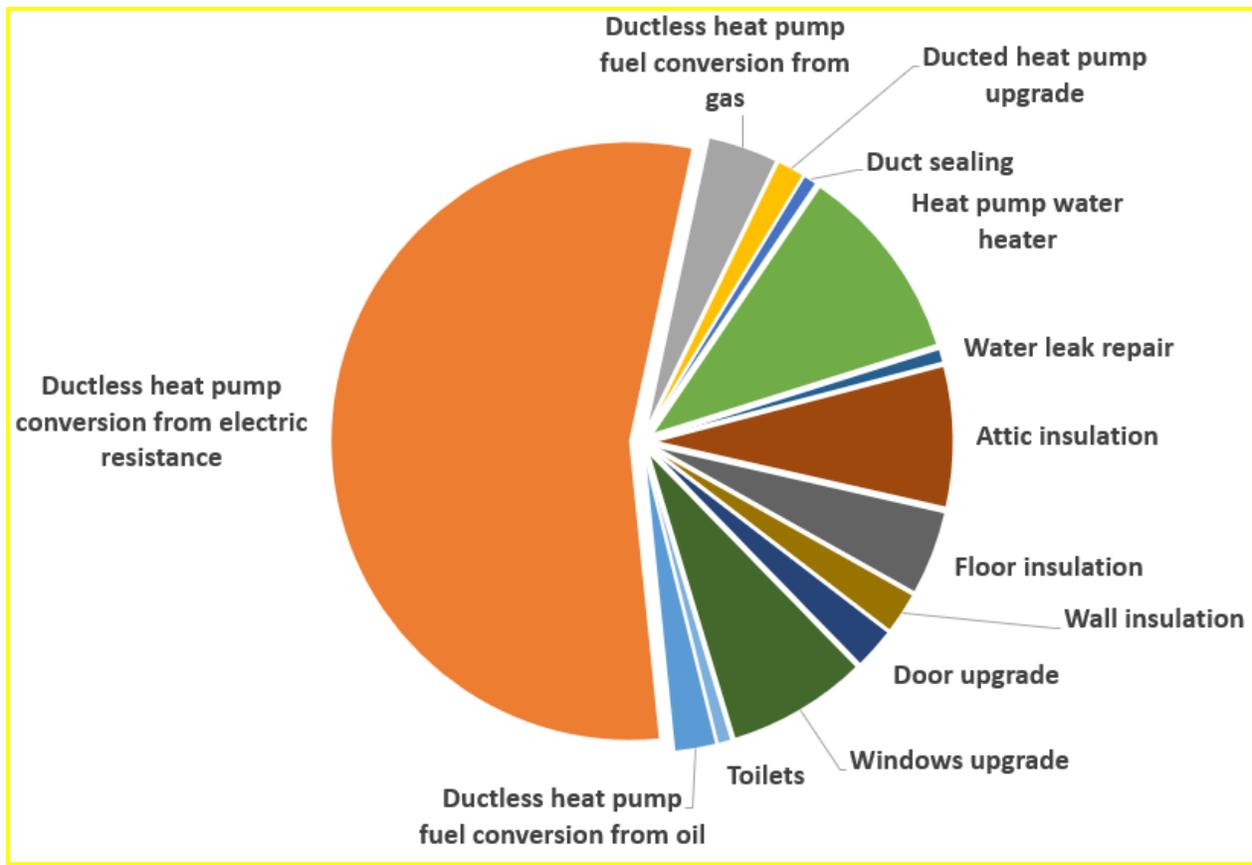
The third student, Hannah, was hired to create a webpage wireframe and draft copy for the City of Eugene's Home Energy Score webpage. She then conducted research via informational interviews, web research, and academic articles into city sustainability efforts with local business communities and toward climate mitigation, and provided administrative support to City staff by scheduling and conducting interviews with local businesses. Hannah has subsequently been appointed to the City's Sustainability Commission by the City Council and is working summer 2021 on a sustainability-focused internship. She credits both opportunities to her experience working in this program. City of Eugene staff, including Deveron Musgrave, Samantha Roberts, and Benjamin Zublin

provided guidance for the program goals during a liminal time for the program, as well as mentorship and oversight for Hannah’s work.

## Home Energy Assessment Results

Since the program began in 2017, there have been 618 homes scored (and others unofficially or unable to be completed) and 154 improvements made to homes (16.7% of homes scored). In total, property owners have invested \$555,000 in upgrades and taken advantage of \$106,000 in rebates from EWEB. These projects save 211,000 kWh per year. In total, eight homes have converted away from fossil fuels for heating. Carbon savings calculations vary, but the Score program has resulted in an annual carbon savings of around 23,000 pounds of CO<sub>2</sub>e.

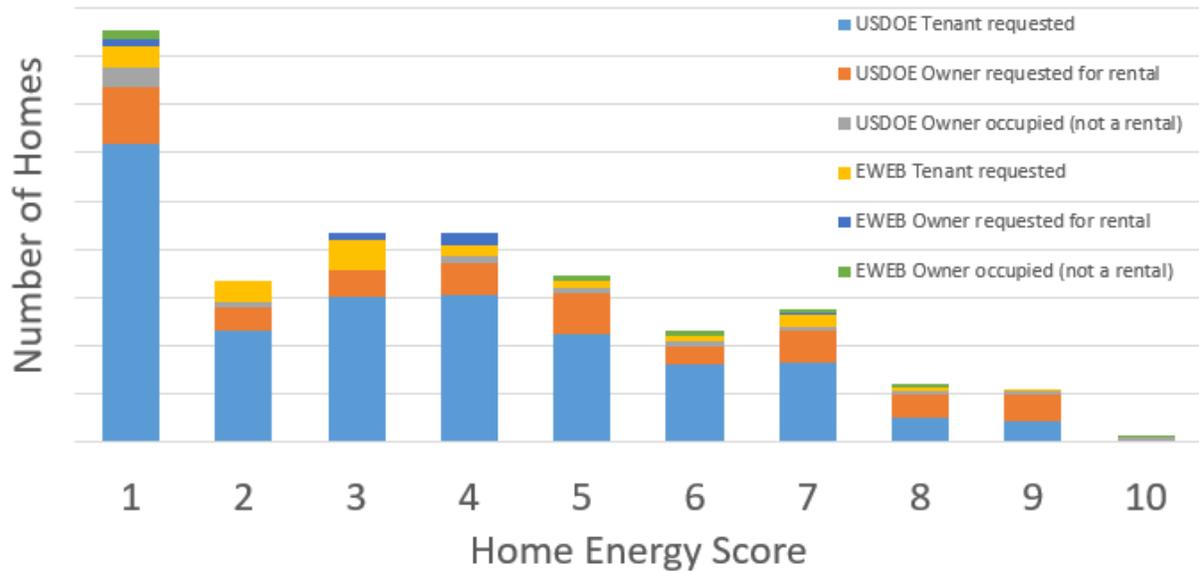
### 2021 - Upgrades made since the program began in 2017



Many property owners take up to a year or more after receiving the assessment before taking action. We will update the investment estimate next year and share with program funders and partners.



### Score Results 2017-2021



This graphic shows the breakdown of score points received over the life of the program.

## BUDGET

### City of Eugene Grant

UO student labor totaled \$7,657.63. \$2,378.96 remains in the City of Eugene grant funds. We will work with City of Eugene staff to determine how to handle remaining funds. All City of Eugene funds have been spent as directed to cover student labor.

### EWEB Grant

EWEB grant funds remaining from last year covered program management expenses, including: BPI training fees for one student, postage, and meeting hospitality. All EWEB funds have been spent as directed to cover program management expenses.

## APPENDIX

Current report example



# EWEB HOME ENERGY SCORE

Know the score. Outsmart energy waste.

THIS HOME'S SCORE

3

OUT OF 10

THIS HOME'S ESTIMATED ENERGY COSTS

\$1,813

PER YEAR

## HOME PROFILE

### LOCATION:

123 Main Street

Eugene, OR, 97402

### YEAR BUILT:

1965

### HEATED FLOOR AREA:

950 sq. ft.

### NUMBER OF BEDROOMS:

2

### HOUSING TYPE:

Single-family or townhouse-style home

## ASSESSMENT

### ASSESSMENT DATE:

7/19/2021

### ENERGY SPECIALIST:

Grace Hardy

University of Oregon/EWEB

### PHONE:

541-346-3489

### EMAIL:

scoreprogram@uoregon.edu

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



Your home's current score

3

Uses more energy

1

2

3

4

5

6

7

8

9

10

Uses less energy

The EWEB Home Energy Score is a rating system developed by EWEB, using similar methodology as the U.S. Department of Energy's Home Energy Score. The Score reflects the energy efficiency of a home based on the home's structure and heating, cooling, and hot water systems. The average score is a 5, and 10 is the best. Made possible through a partnership between EWEB, University of Oregon, and the City of Eugene.

## HOW MUCH ENERGY IS THIS HOME LIKELY TO USE?

<b>Electric:</b>	14,233 kWh	.....	\$1,547
<b>Natural Gas:</b>	188 therms	.....	\$267
<b>Other:</b>	0 gal	.....	\$0

**TOTAL ENERGY COSTS PER YEAR \$1,813**

How much solar energy does this home generate? zero kWh/yr

## THIS HOME'S CARBON FOOTPRINT

as measured in metric tons of CO2 equivalent per year

This Home

1.26

8+ tons/year WORST

0 tons/year BEST

What should my home's carbon footprint be? Oregonians should reduce carbon pollution per household to 1.9 tons per year by 2050 to reach Oregon's climate goals.

Due to EWEB's clean energy resources, all-electric homes will have a lower carbon footprint compared to homes using gas or other non-electric equipment.

- Actual energy use and costs may vary based on occupant behavior and other factors.
- The carbon footprint above is based only on estimated building energy use. Purchased goods & transportation can be a large portion of a household's carbon footprint and are not included here. Learn how driving electric can reduce your carbon footprint at [eweb.org/ev](http://eweb.org/ev).
- Carbon emissions are calculated based on utility- and fuel-specific emissions factors from the Oregon Department of Energy.
- Estimated energy costs are calculated based on current utility prices (\$0.091/kWh plus \$20.50 per month for electricity; \$0.91/therm plus \$8.00 per month for natural gas).



## TACKLE ENERGY & WATER WASTE TODAY!



Enjoy the rewards of a comfortable, energy efficient home that saves you money.

- Get your home energy assessment (Done!)
- Choose which energy and water upgrades to address first.
- Get a bid. Find an EWEB-participating contractor by visiting [eweb.org/contractorlist](http://eweb.org/contractorlist).
- Complete energy improvements. For eligible measures, EWEB may be able to offer a rebate or a 0% interest loan. For more details, visit [eweb.org/saveenergy](http://eweb.org/saveenergy) or call EWEB at **541-685-7088**.

### \* PRACTICAL IMPROVEMENTS - COMPLETE NOW OR LATER

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

FEATURE	TODAY'S CONDITION	RECOMMENDED IMPROVEMENTS
Ceiling insulation	R-13	Add attic insulation to R-49 as space allows
Floor insulation	R-19	-
Wall insulation	R-11	-
Envelope/Air Sealing	Not professionally air sealed	Have the home professionally air sealed
Windows	Double-pane metal	Consider upgrading metal windows
Skylights	None	-
Heating system	Zonal electric resistance	Install an efficient heat pump
Cooling system	Room air conditioner	-
Duct insulation	No ductwork	-
Duct sealing	No ductwork	-
Water heater	Gas storage (natural draft)	Install a heat pump water heater
Solar PV	None	Visit <a href="http://bit.ly/EWEBsolar">bit.ly/EWEBsolar</a> for more info

#### FEATURES THAT DO NOT IMPACT THE SCORE:

Toilets	At least one older toilet (1.6 gal per flush or more)	Replace old toilets with water-efficient toilets
Electric vehicle charger	None	If the household drives, consider a Level 2 charger to encourage the use of electric vehicles

THIS HOME'S SCORE

**3**  
OUT OF 10

THIS HOME'S ESTIMATED ENERGY COSTS

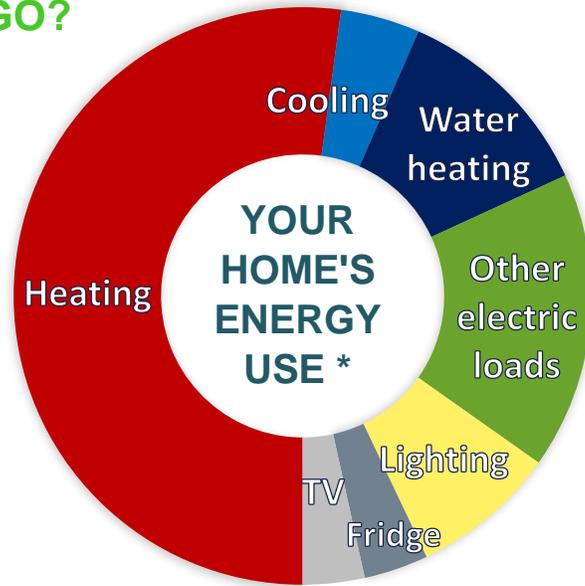
**\$1,813**  
PER YEAR

## WHERE DOES THE ENERGY GO?

A home like yours used in a typical way during an average weather year will consume \$1,813 worth of energy as shown in the chart to the right. This includes 14,233 kWh of electricity.

However, *your* household used 13,520 kWh of electricity during the last year.

Your actual electricity consumption is lower than average. That's great! It may be that last winter was warmer than usual, or it may be your household has been careful about conserving energy. Keep up the good work!



\* The chart to the left shows where your energy dollars go: mostly space and water heating. Included with Other electric loads are your stove, clothes washer & dryer, and other devices.

## LOW-COST TIPS TO LOWER YOUR BILL

The actions below can save a household like yours

**\$300**

- \$50** Adjust your thermostat by two degrees. Turn it down in winter, up in summer. Dress for the season.
- \$25** Reduce your hot water use: (1) Take showers & not baths, (2) shorten showers, (3) wash clothes with cold water, (4) install low-flow shower heads & faucet aerators.
- \$65** Heat and cool a smaller space by closing off unused rooms & turn off the heating & cooling in those rooms.
- \$50** Get rid of your television.
- \$25** Replace your most commonly-used lights with LEDs.
- \$20** Unplug electronics when not in use. Avoid standby power use by unplugging devices or using smart power strips.
- \$65** Set your thermostat back at night or while you are away. Adjust manually, or use a programmable Tstat. (Myth-buster: It does not cost you more to get the space back to temperature.)

**Total: \$300 per year in potential savings**

## OTHER WAYS TO MANAGE YOUR BILLS

- Use a thermometer for a reality check before adjusting your thermostat.
- Reduce drafts: Seal up gaps around windows and doors with weatherstripping or even towels. Close chimney damper between fires, or seal it off if not used.
- Limit your use of space heaters. They cost around ten cents an hour to run, which can add up.
- Monitor your consumption each month. Look for a new EWEB online portal coming soon to help.
- Lower water use to save on water and wastewater bills: Fix any water leaks and limit irrigation. Try planting water-efficient plants.