Trends in HERS® Rated Homes

A STATISTICAL ABSTRACT

2025

RESNET®

Suppliers Advisory Board

Prepared for RESNET's Suppliers Advisory Board

Ryan Meres | RESNET | July 14, 2025

Contents

Executive Summary

Last year, thirty-three percent of all new single-family homes built in the U.S. were rated for their energy efficiency using the Residential Energy Services Network's (RESNET®) HERS® Index. The HERS Index is comparable to a miles-per-gallon rating for homes, where a lower score means less energy use. A score of 100 on the index represents a home built using standard construction practices from 2006, while a score of zero represents a home that produces as much energy as it uses on an annual basis. This annual report looks at the trends across all homes receiving a HERS rating in 2024. The report was completed on behalf of RESNET's Suppliers Advisory Board.

The report first looks at broad national-level trends in the number of HERS ratings and average index scores. Next, the report covers state-level trends, including the total number of HERS ratings in each state and the percentage of new homes that received a HERS Rating. After the state-level data, the report surveys trends of HERS ratings in cities, including the top 25 cities for single-family and multi-family ratings.
The remainder of the report focuses on individual trends across HERS ratings, including a breakdown of the basic characteristics of rated homes and individual building components. A variety of building envelope components are covered as well as air leakage rates, equipment efficiencies, and the use of solar on HERS Rated homes.

Another Record Year

In 2024, HERS Raters rated over 436,000 homes. This represents a twenty-two percent increase over the number of ratings in 2023 and marks eleven years of year-over-year increase in HERS ratings. The average HERS Index in 2024 was 55, representing a 45 percent improvement in efficiency over a home built in 2006. Since 2013, the average HERS index score has decreased by nine points. Seventy-seven percent of all homes rated last year were one- and two-family dwellings and 23 percent were multi-family units.

RESNET's HERS$_{H2O}$® whole-house water efficiency rating program also saw record numbers with nearly 6,000 homes being rated. This is a 49 percent increase over 2023 and reflects steady growth for HERS$_{H2O}$ and the WaterSense Label for Homes. The national average HERS$_{H2O}$ score was a 59 last year. A score of 70 or less is needed to qualify for the WaterSense Labeled Homes program.

HERS Ratings by State

RESNET conducted an analysis of the percentage[1] of new one- and two-family dwellings compared to the number of HERS ratings in each state in 2024. The clear stand-out for the highest percentage of new homes receiving a HERS Rating is Massachusetts. The commonwealth saw 88 percent of all new homes receive a HERS

[1] Based on the number of HERS Ratings on one- and two-family dwellings in RESNET's National Buildings Registry and permit data from the U.S. Census Bureau

Rating. Arizona came in second place with 73 percent of all new homes HERS Rated last year; while Texas surged 10 percentage points to see 67 percent of all homes HERS Rated. Figure 1 shows the percentage of homes HERS Rated by state.

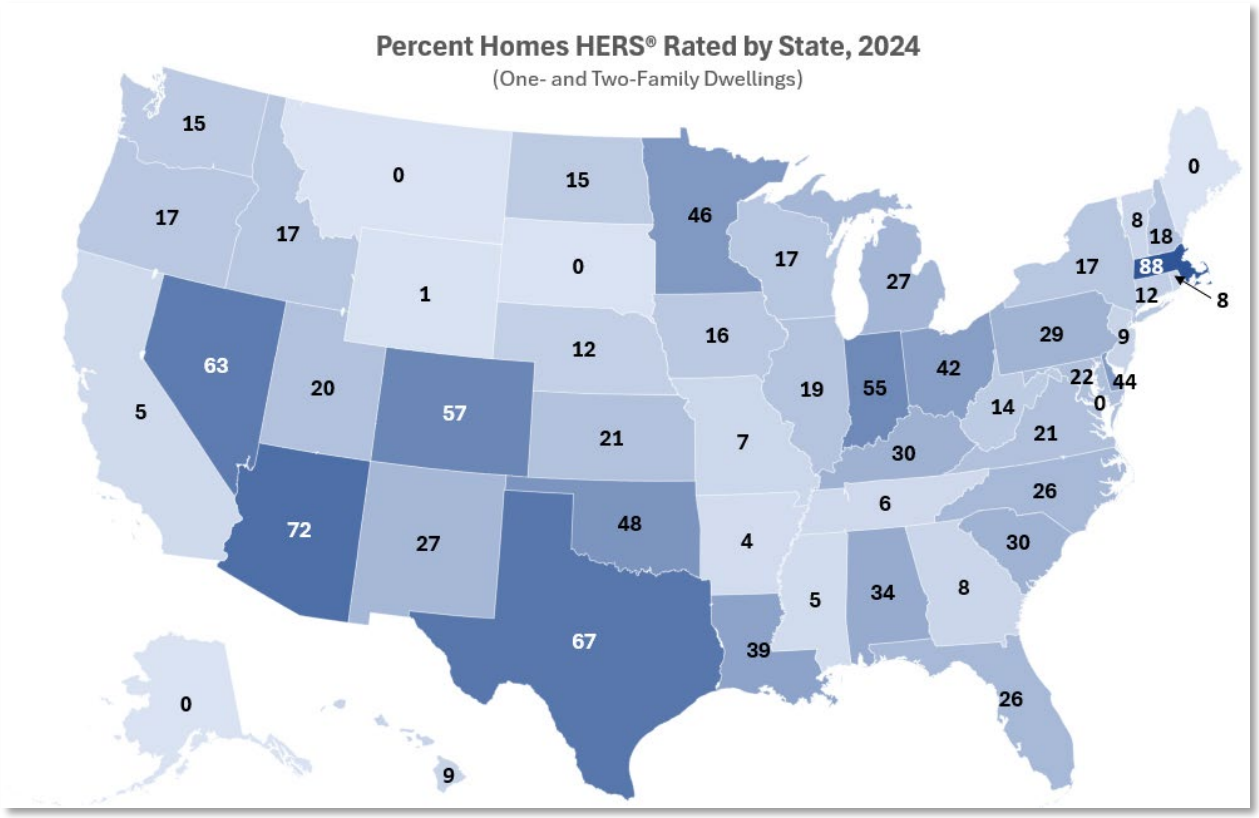


Figure 1. Percent of New Homes HERS Rated by State, 2024

When looking at the total number of ratings, for all home types, by state, Texas comes out on top with more than 113,000 homes HERS Rated. With two more states than 2023, a total of eleven states recorded more than 10,000 ratings last year. Figure 2 shows the total number of HERS Ratings for all home types by state in 2024.

When looking at the top ten states that saw increases in HERS Ratings in 2024, they averaged 6,500 more ratings last year compared to 2023. Those states are:

State	Increase (2023 to 2024)
TX	23,996
FL	11,540
AZ	6,245
NC	6,109
VA	3,541
LA	3,420
UT	3,232

OH	2,836
AL	2,754
NV	2,208

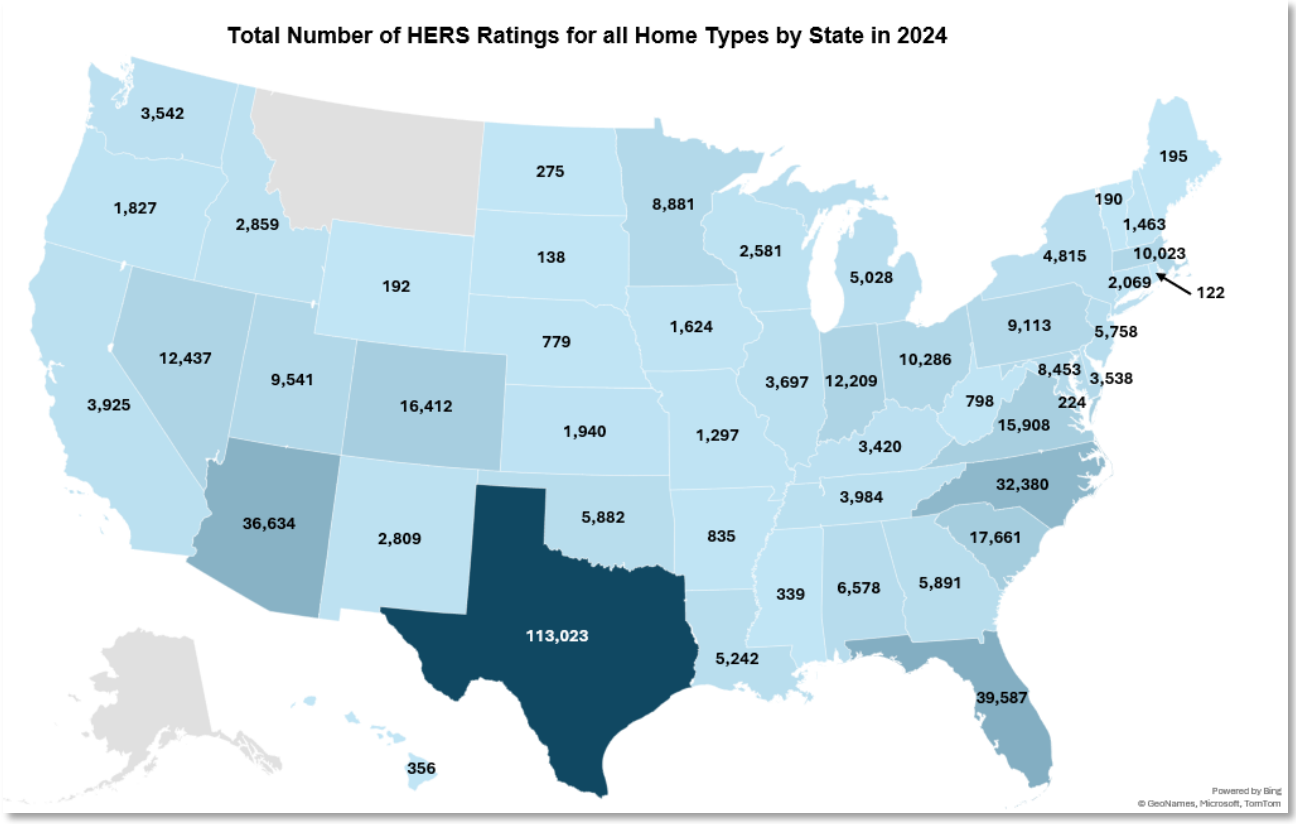


Figure 2. Number of HERS Ratings by State, 2024

HERS Ratings by Municipality

In 2024, there were HERS Ratings completed in more than 5,400 individual municipalities. For the sixth year in a row, San Antonio, Texas tops the list of municipalities with the highest number of HERS Ratings at more than 9,300 homes. The top 25 municipalities are located across just four states and are responsible for one-fifth of single-family and duplex HERS Ratings last year. Figure 3 shows the top 25 municipalities for single-family and duplex HERS Ratings in 2024. (Note: this data reflects HERS Ratings with an address in the city listed, not the metro area).

Top 25 Municipalities for Single Family and Duplex HERS Ratings in 2024

City	State	HERS Ratings
San Antonio	TX	9,394
Las Vegas	NV	6,024
Houston	TX	3,400
McKinney	TX	3,283

Katy	TX	3,032
Queen Creek	AZ	2,985
Surprise	AZ	2,937
Cypress	TX	2,898
Conroe	TX	2,639
Richmond	TX	2,048
Fort Worth	TX	2,379
Princeton	TX	2,277
Georgetown	TX	2,067
Fulshear	TX	2,293
Tucson	AZ	2,289
Henderson	NV	2,232
Phoenix	AZ	2,154
Bradenton	FL	2,090
New Braunfels	TX	1,979
Buckeye	AZ	1,834
Magnolia	TX	1,729
Maricopa	AZ	1,769
Aubrey	TX	1,651
Celina	TX	1,554
Forney	TX	1,525

Figure 3. Top 25 Municipalities for Single-family and Duplex HERS Ratings, 2024

When considering only multi-family ratings, there were HERS Rated dwelling units in more than 1,300 municipalities, with Charlotte, North Carolina once again topping the list for the second year at over 2,500 units rated. The top 25 municipalities for multi-family ratings are located across 12 states and were responsible for nearly a quarter of all multi-family HERS Ratings last year. Figure 4 shows the top 25 municipalities for multi-family HERS Ratings last year.

Top 25 Municipalities for Multi-family HERS Ratings in 2024

City	State	HERS Ratings
Charlotte	NC	2,552
Phoenix	AZ	2,233
Raleigh	NC	1,960
Myrtle Beach	SC	1,397
Columbia	SC	1,099
Alexandria	VA	1,185
Richmond	VA	1,023
Henderson	NV	1,020
Las Vegas	NV	1,003
Frederick	MD	1,001

Saratoga Springs	UT	620
Boston	MA	758
Durham	NC	755
Nashville	TN	723
Apex	NC	717
Denver	CO	692
Chantilly	VA	686
Kissimmee	FL	670
Salt Lake City	UT	659
Norfolk	VA	646
Somerville	NJ	406
Aurora	CO	459
Wilmington	NC	459
North Chesterfield	VA	559
Spanish Fork	UT	530

Figure 4. Top 25 Municipalities for Multi-Family HERS Ratings, 2024

Components of HERS Rated Homes

This section will address various national construction trends across HERS Rated homes last year. Both single-family and multi-family home types will be addressed. As a national aggregate, the average single-family HERS Rated home had the following basic characteristics in 2024:

- HERS Index Score: **55**
- Number of bedrooms: **3.7**
- Conditioned floor area: **2,467 ft^2** (~3% decrease since 2023)
- Annual energy cost: **$1,762**
- Annual energy cost savings: **$993** (~$100/year savings over 2023)

The average multi-family dwelling unit had these basic characteristics in 2024:

- HERS Index Score: **56**
- Number of bedrooms: **2.5**
- Conditioned floor area: **1,504 ft^2** (~4% increase over 2023)
- Annual energy cost: **$1,304**
- Annual energy cost savings: **$679** ($70/year savings over 2023)

In understanding the data presented in this section, it is helpful to provide some context for the number of homes rated in each climate zone[2]. This context is useful when

[2] Climate zone as defined in the 2021 International Energy Conservation Code

considering the insulation R-values and other construction practices characterized below. Climate zones 2 (a and b) and 3 (a and b) cover most of the southern states from Texas and Oklahoma, east to the southern half of North Carolina and south to Florida and the Gulf Coast. They also cover the southern portions of Arizona and New Mexico. These states are primarily in warmer climates and made up nearly 60 percent of all ratings in 2023. Most of the rest of the ratings were in climate zones 4a and 5 (a and b). These climate zones run roughly from the mid-Atlantic and lower northeast states, west to Nevada and north to Oregon and Washington.

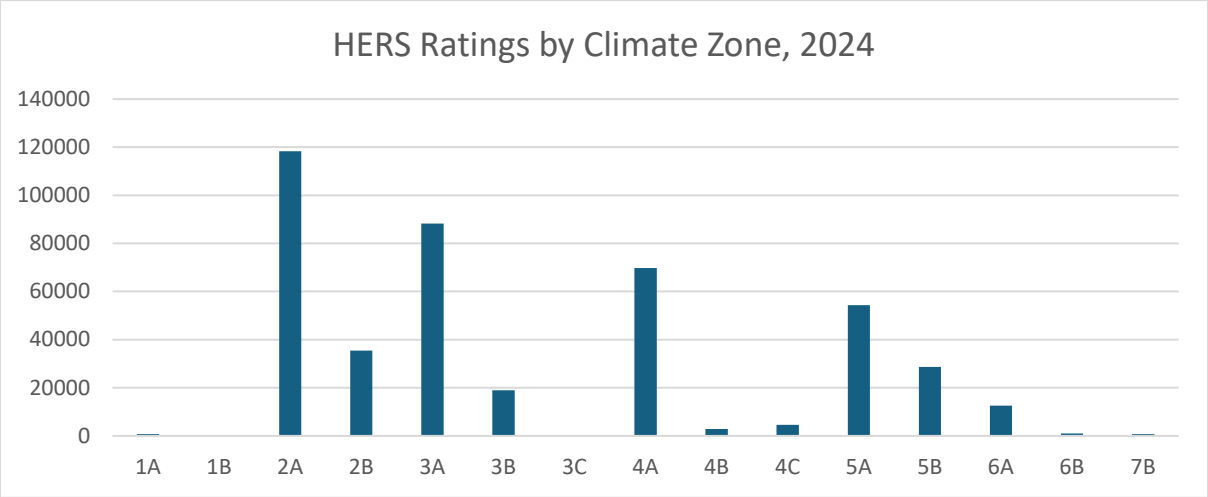


Figure 5. HERS Ratings by Climate Zone, 2024

Foundation Types

Figure 6 displays the foundation types for HERS Rated homes last year. The most common foundation type, representing over 90 percent of all homes, was slab-on-grade.

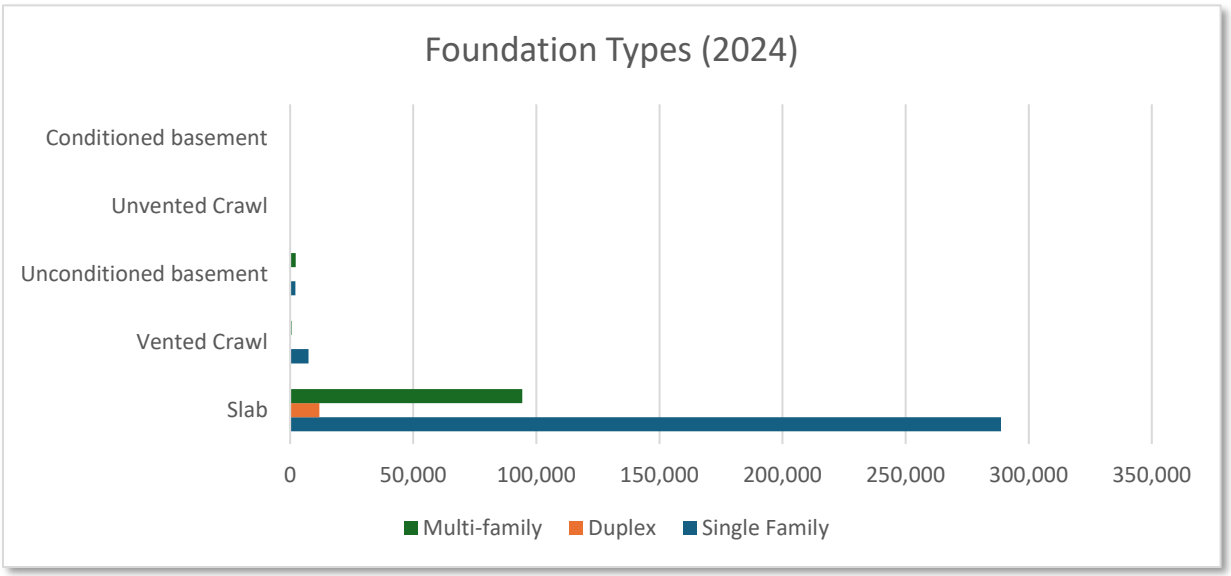
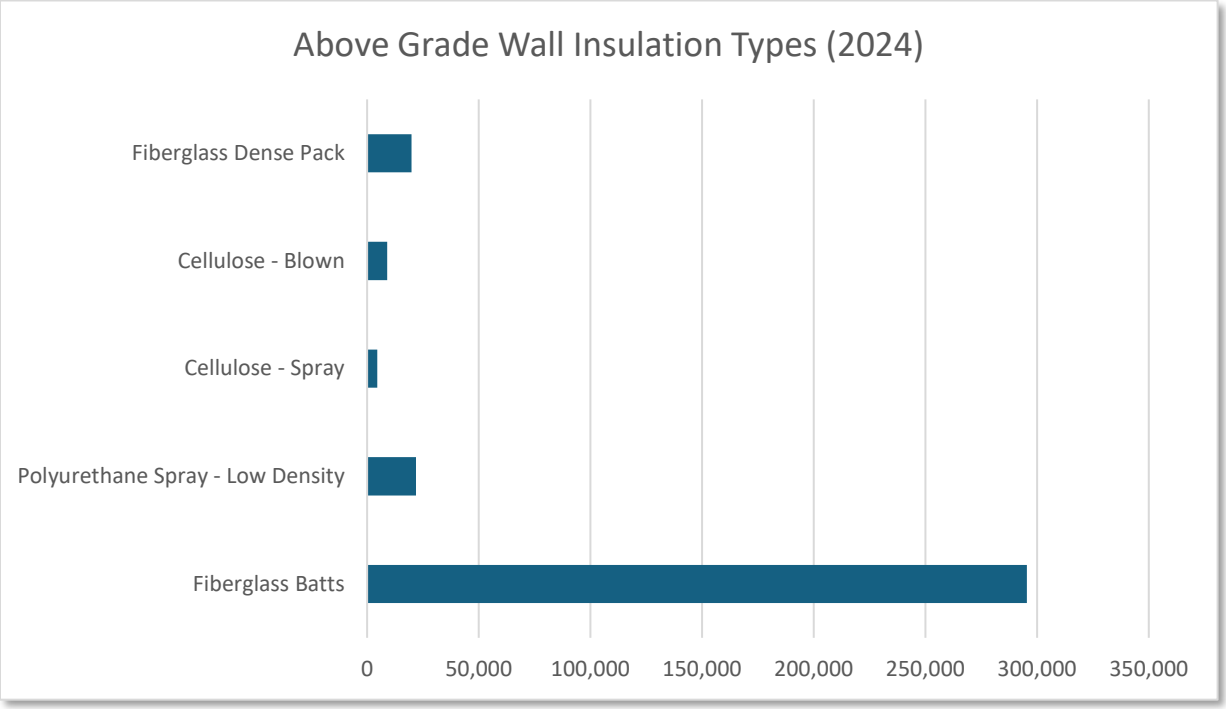


Figure 6. Foundation Types, 2024

Above-Grade Wall Insulation Types

The following chart shows the most common types of insulation used for above grade walls.



Ceiling Insulation

The following chart shows the average U_o for ceilings for all HERS Ratings each year for the past five years. Figure 7 shows the average ceiling U_o by climate zone for 2023 (climate zones with fewer than 100 ratings have been removed).

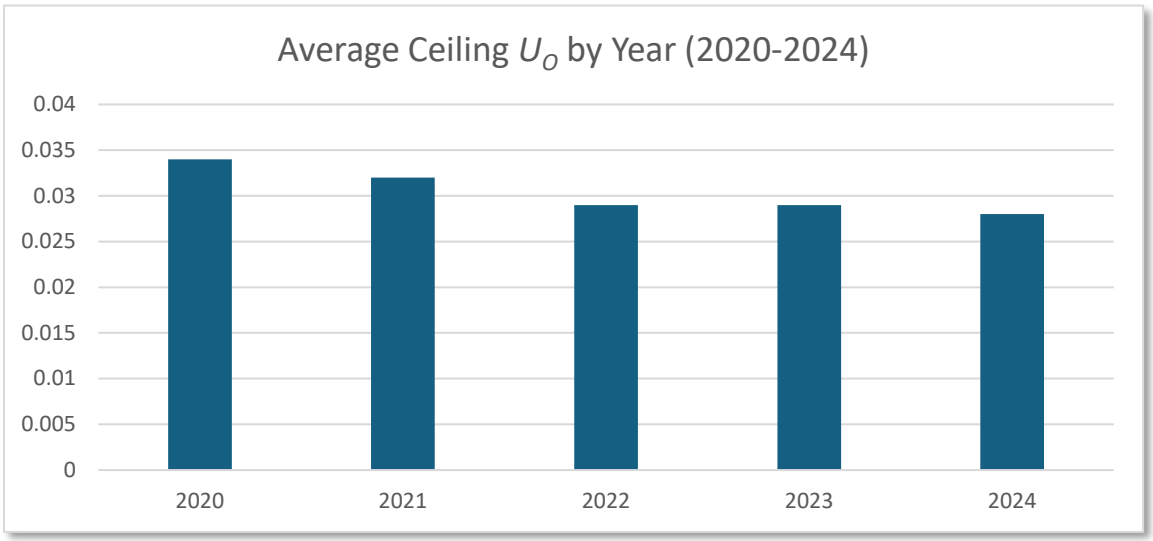


Figure 7. Average Ceiling Uo (2020-2024)

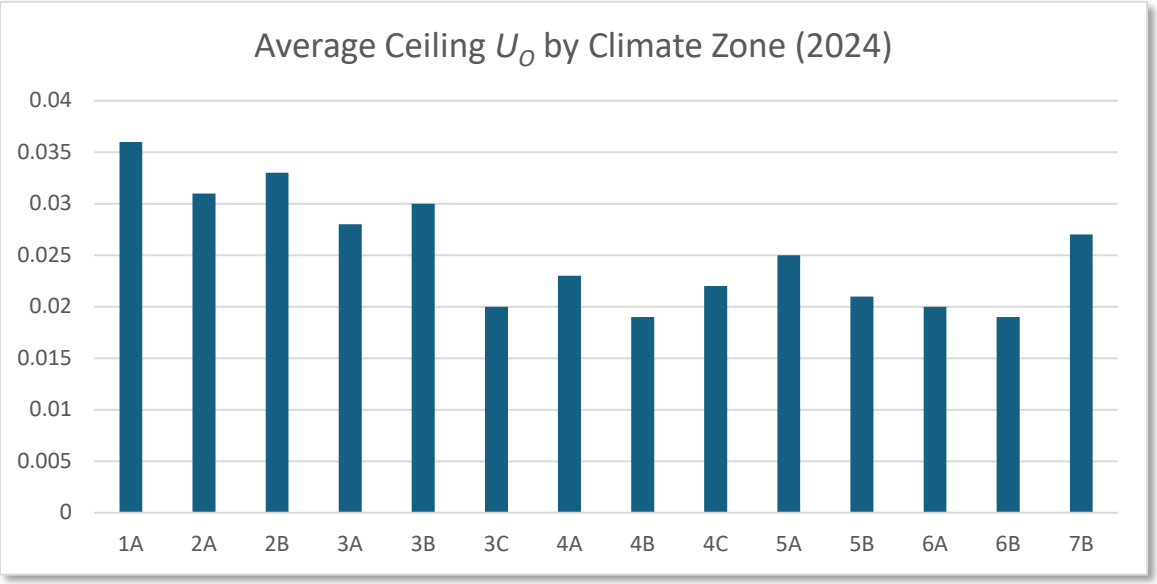


Figure 8. Avg. Ceiling Uo by Climate Zone (2024)

Window U-Value and SHGC

Data on window *U*-Values shows that 47 percent of windows have a *U*-Value between 0.31-0.36 for single-family homes. Window solar heat gain coefficient (SHGC) shows a similar trend with about 64 percent of windows having an SHGC of 0.21-0.26. Figure 9 shows the breakdown of window *U*-Values and solar heat gain coefficients for single-family ratings last year. Figure 10 shows multi-family window *U*-Values and SHGC for ratings last year and Figure 11 shows the average window *U*-Values and SHGC by climate zone (climate zones with fewer than 100 ratings have been removed).

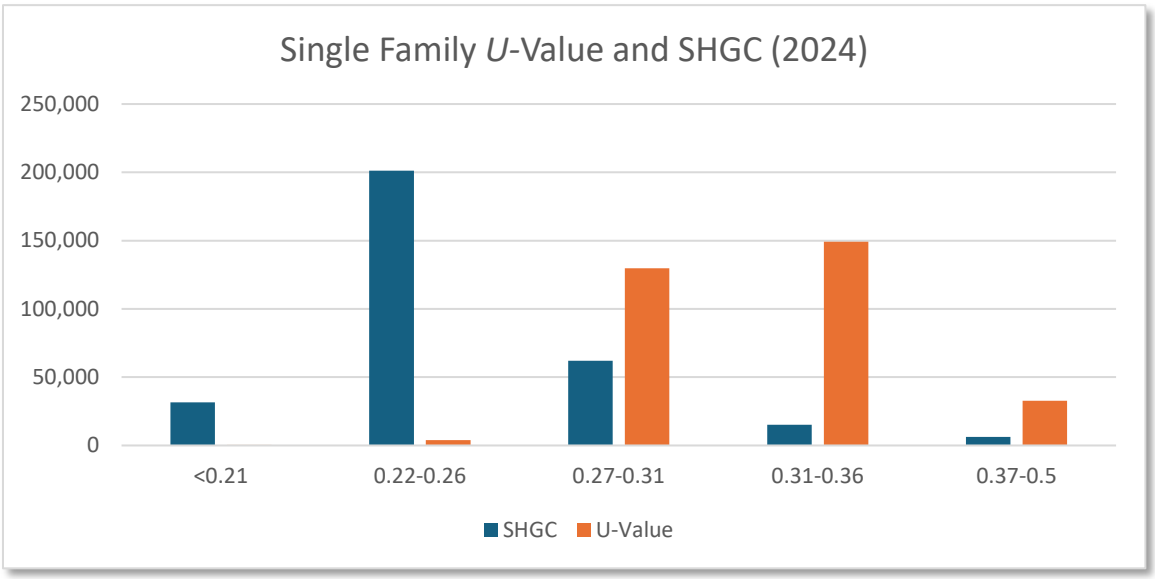


Figure 9. Single Family Window U-Value and SHGC, 2024

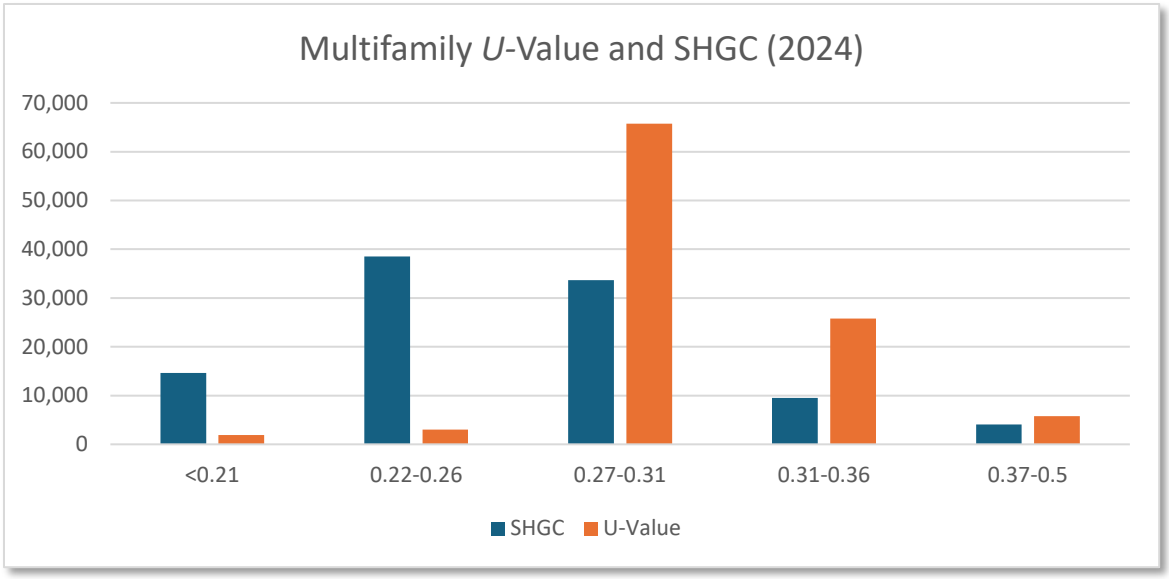


Figure 10. Multi-Family Window U-Value and SHGC, 2024

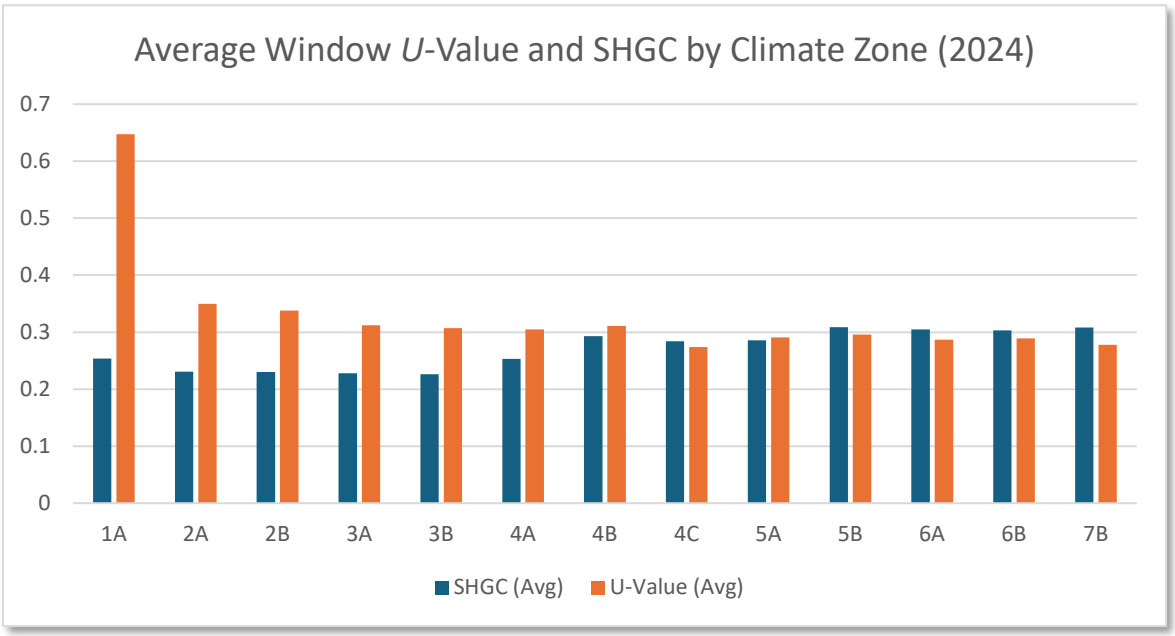


Figure 11. Avg. Window U-Value and SHGC by Climate Zone, 2024

Envelope Air Leakage Rates

In 2024, 93 percent of all single-family and 66 percent of all multi-family HERS Rated homes had an envelope leakage rate of 5 air changes per hour or less. Impressively, a combined total of more than 49,000 single-family and multi-family homes had an air leakage rate of less than 2 ACH50. Figure 12 shows the breakdown of air leakage rates for HERS Rated homes last year. Figure 13 provides a breakdown of average envelope

leakage rates by climate zone (climate zones with fewer than 100 ratings have been removed).

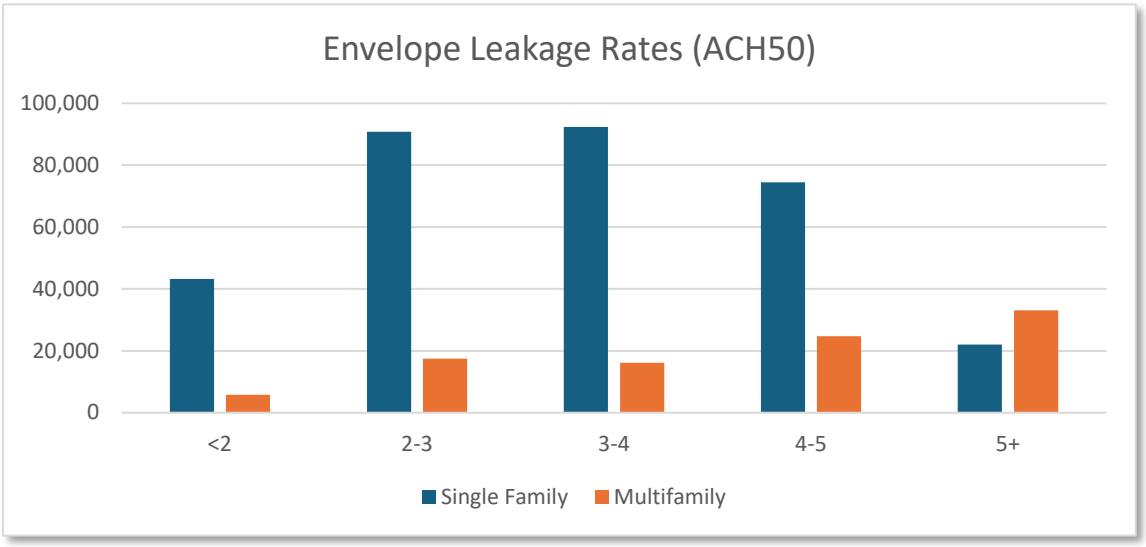


Figure 12. Air Leakage Rates of HERS Rated Homes, 2024

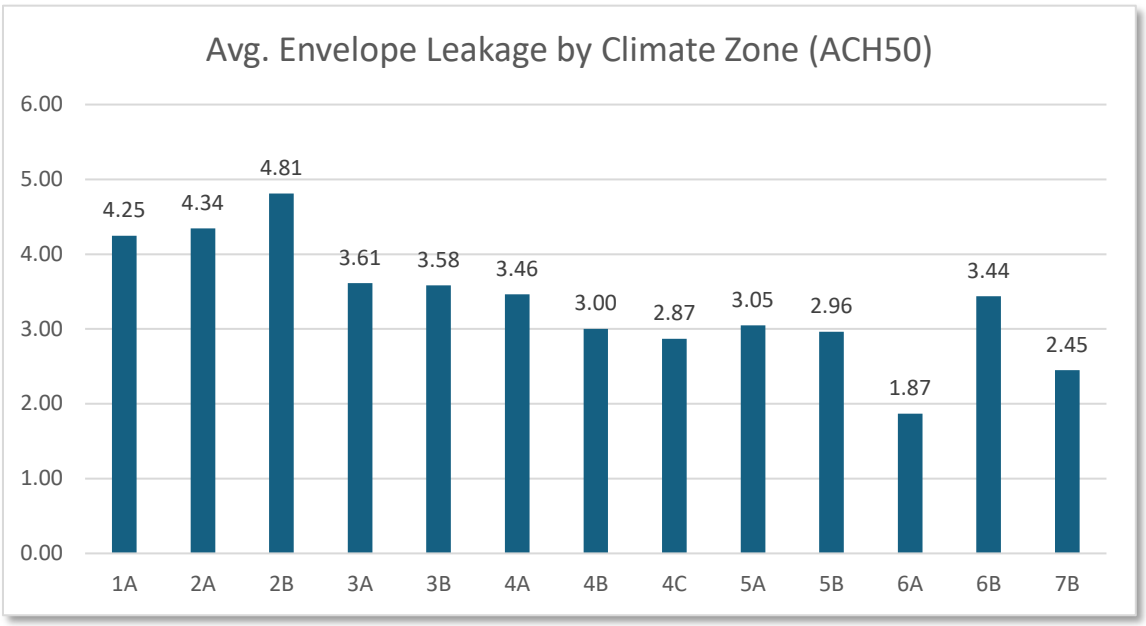


Figure 13. Avg. Envelope Leakage by Climate Zone, 2024

Ventilation Types

Data on mechanical ventilation types shows that exhaust- and supply- only ventilation strategies are still the most common for HERS Rated homes. For homes with mechanical ventilation, the third most common strategy is the use of the air handler (CFIS) for ventilation. Figure 14 shows the breakdown of ventilation types for HERS Rated homes last year.

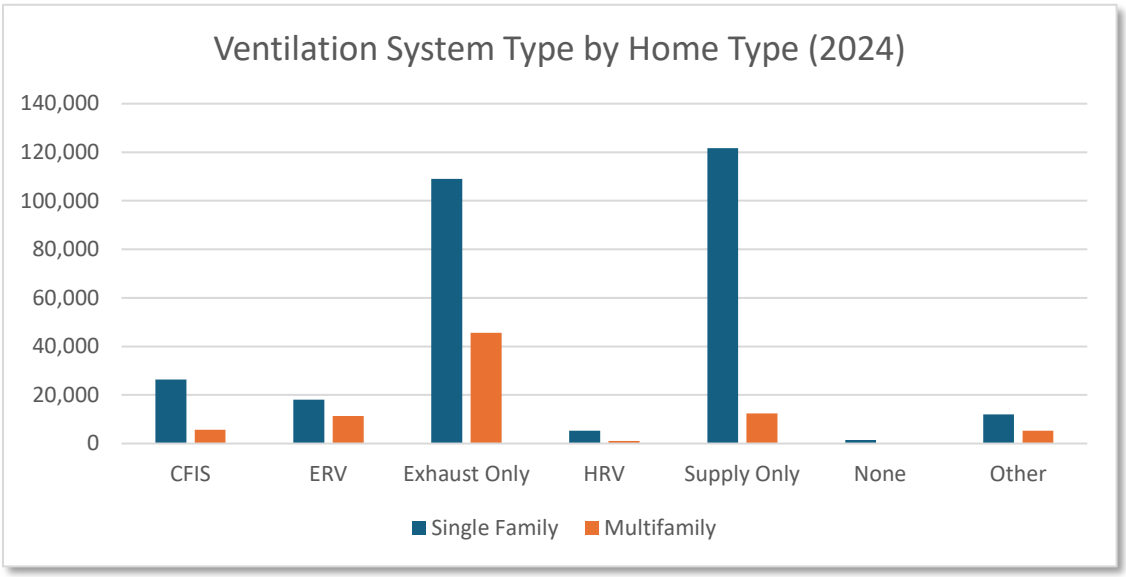


Figure 14. Ventilation Types by Home Type for HERS Rated Homes, 2024

Although the penetration of energy- and heat-recovery ventilators remains low, they have increased in use from 5.3 to 8.2 percent of HERS Rated homes since 2020, as shown in Figure 15.

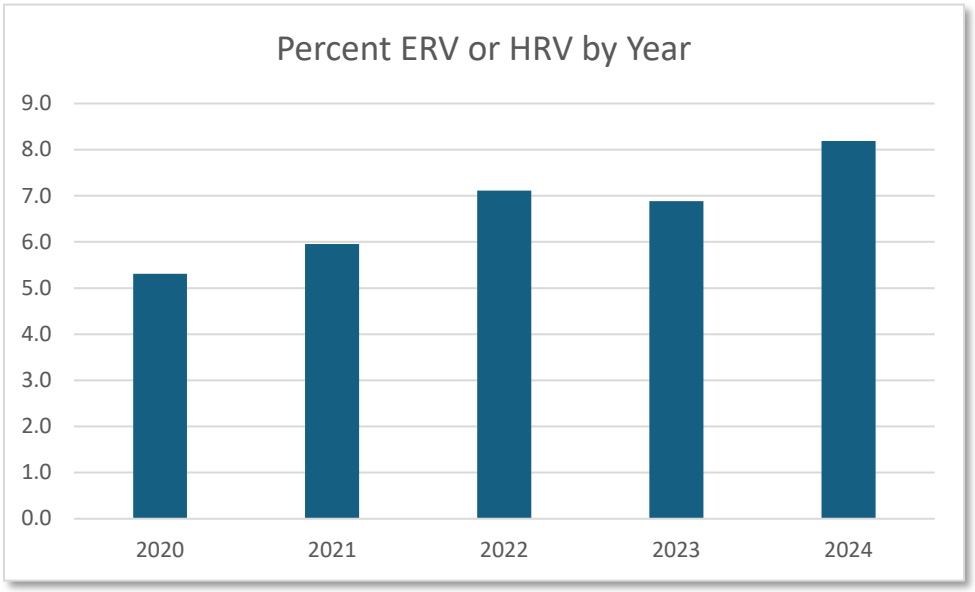


Figure 15. Percent of HERS Rated Homes with ERV or HRV, 2024

Heating, Cooling, Water Heating Equipment and Ducts

RESNET looked at data trends for furnace and air conditioner efficiencies as well as types of water heaters and the fuel sources for water heaters and furnaces. Looking at

furnace efficiencies, about 48 percent of all single-family homes with a fuel-fired furnace used a standard efficiency furnace (less than 90 AFUE), while 52 percent used a high-efficiency furnace as shown in Figure 16. For multi-family units, about 81 percent of units had a high efficiency furnace.

For air conditioner efficiency, 74 percent of single-family homes used a 16 SEER or higher unit, while 58 percent of multifamily homes used the same, as shown in Figure 17.

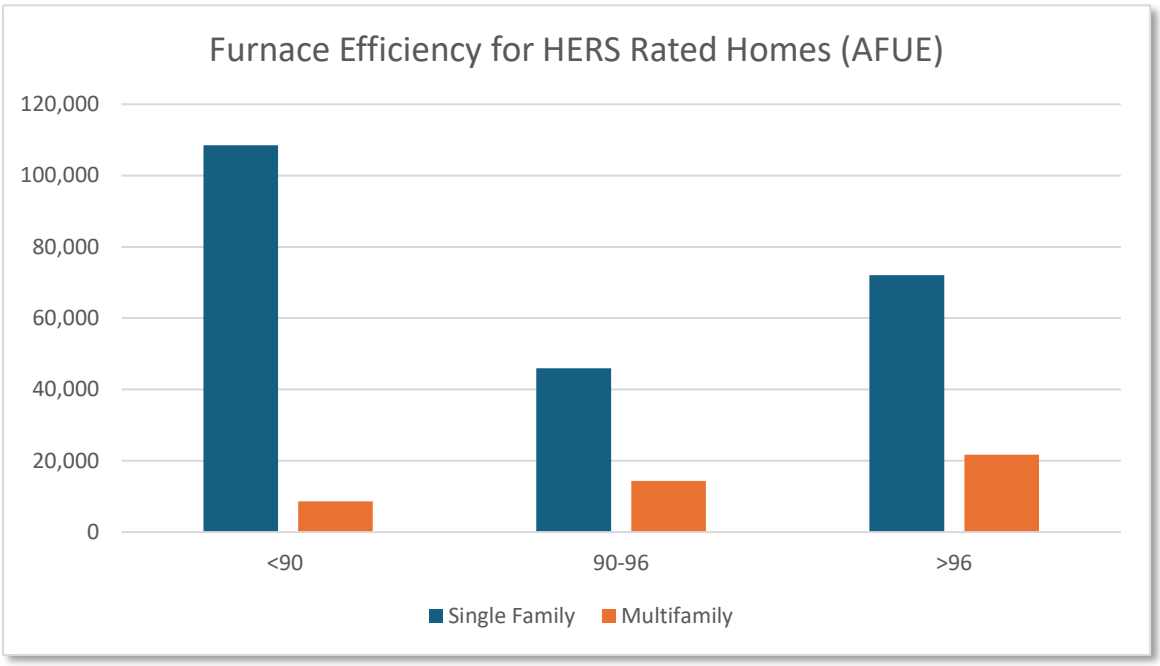


Figure 16. Furnace Efficiency in HERS Rated Homes, 2024

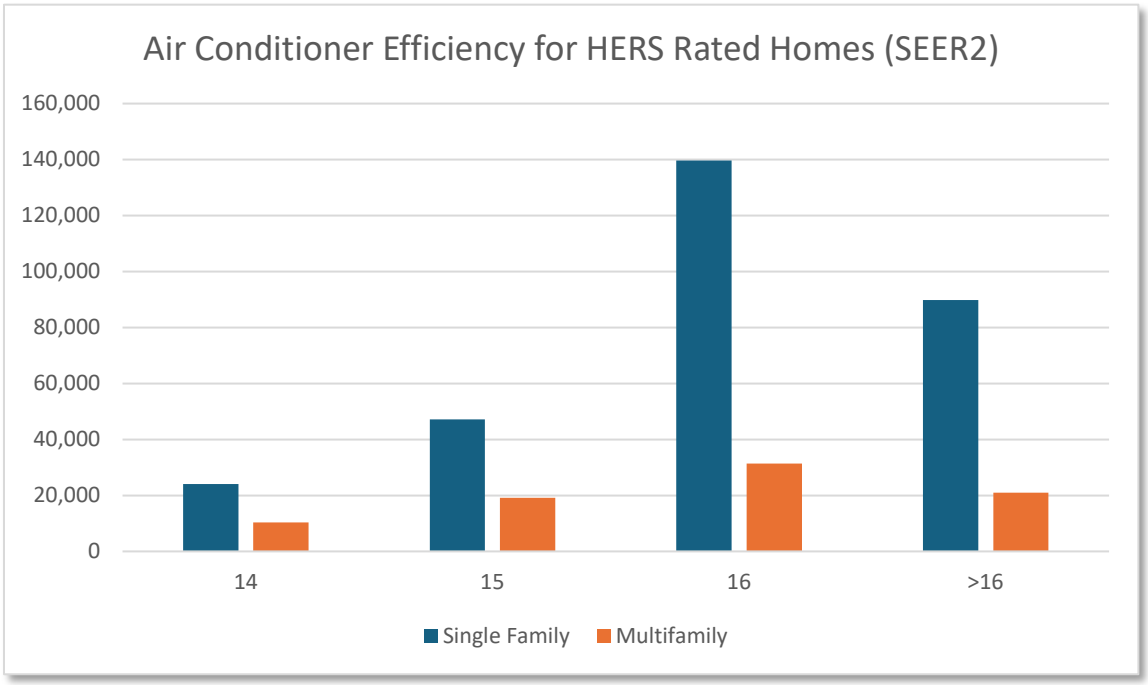


Figure 17. Air Conditioner Efficiency in HERS Rated Homes, 2024

When looking at the fuel type for furnaces, natural gas has the largest share of single-family HERS Rated homes with 63 percent but only made-up 42 percent of the multi-family Ratings last year. These numbers represent a drop of 3 percent for single-family and 2 percent for multi-family over the 2023 numbers and a continuing drop in the share of natural gas homes. Electric was the second most common heating fuel type, representing 58 percent of multi-family Ratings and 38 percent of single-family Ratings in 2024. Figure 18 shows the heating system fuel types for HERS Ratings last year.

Figure 19 shows water heater fuel types. Like heating system fuel type, natural gas is still the most popular for single-family homes, while multi-family is roughly 67 percent electric and 32 percent gas.

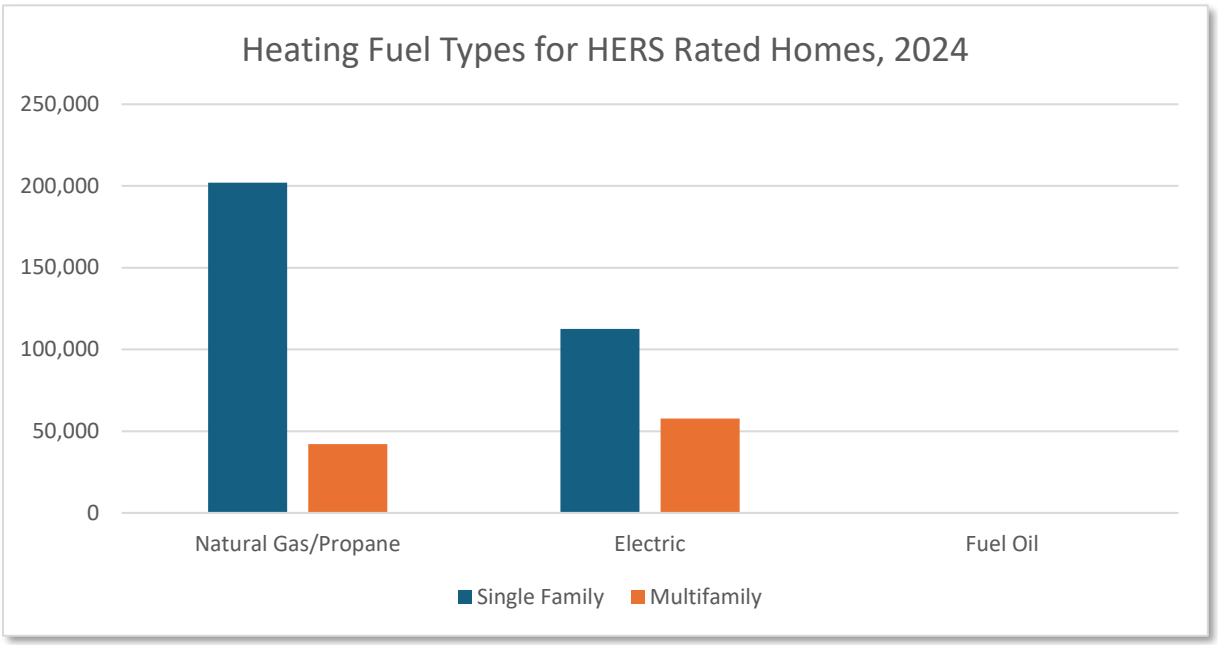


Figure 18. Heating System Fuel Type, 2024

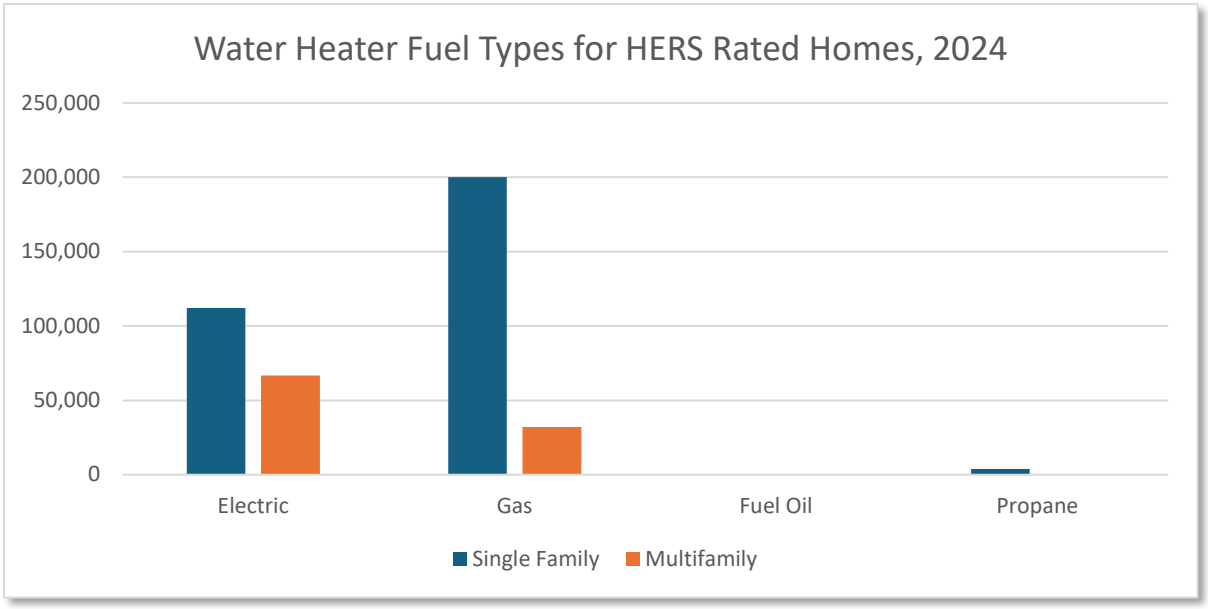


Figure 19. Water Heater Fuel Type, 2024

The next chart looks at the number of HERS Rated homes with all supply and return ducts in conditioned space. In total, there are almost 85,000 (25%) single-family homes and over 45,000 (45%) multifamily units with ducts completely in conditioned space. Figure 20 shows the top 10 states for single-family homes with ducts in conditioned space and Figure 21 shows multifamily units.

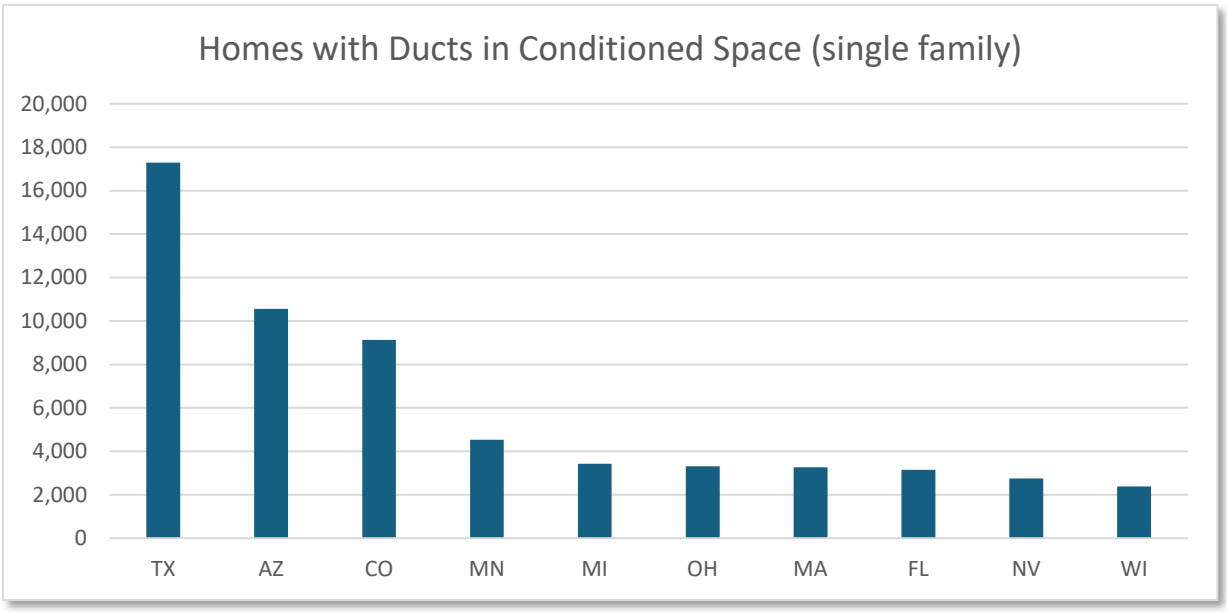


Figure 20. Top 10 States for Single Family Homes with Ducts in Conditioned Space, 2024

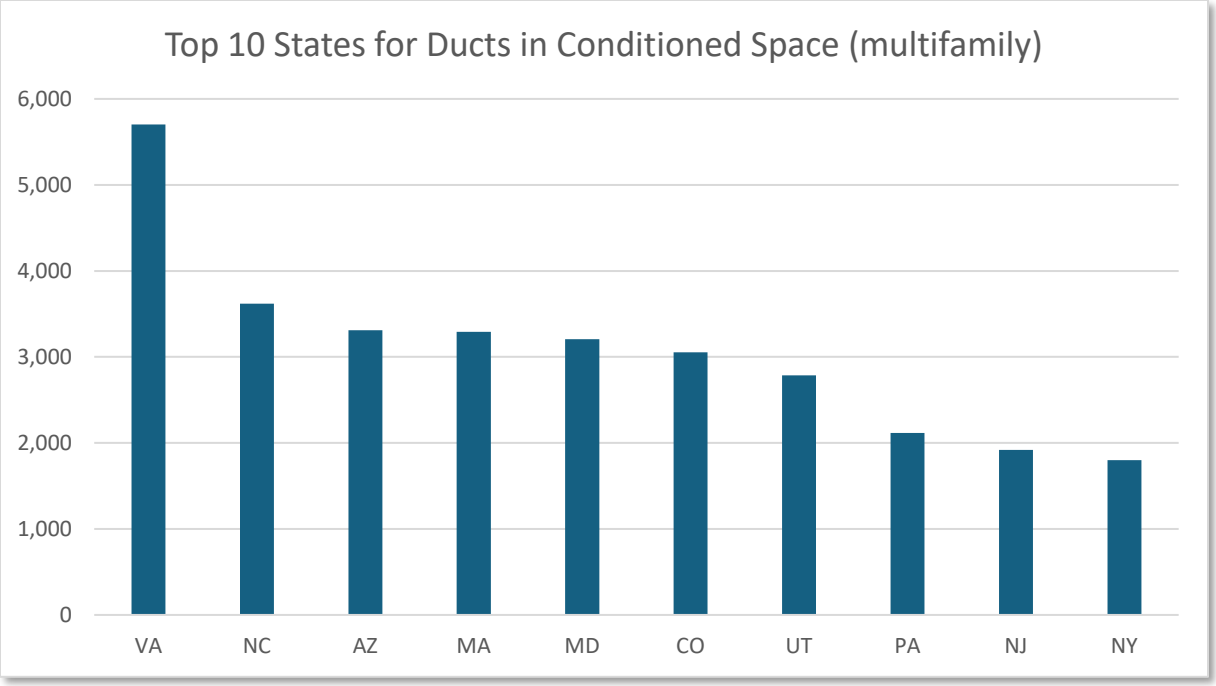


Figure 21. Top 10 States for Multifamily Units with Ducts in Conditioned Space, 2024

The Use of Solar Photovoltaics (PV) on HERS Rated Homes

In 2024, there were over 9,800 HERS Rated homes that had solar PV. A total of 7,416 were installed on single-family and duplex homes and the remainder were on multi-family. The following are some statistics for HERS Rated homes using solar:

- The average HERS Score for homes with solar: 18
- The average HERS Index before accounting for solar: 51

The following are the top 10 states for the use of solar on HERS Rated homes, last year.

State	Ratings with Solar
CA	3,924
CO	1,392
TX	840
NV	546
NY	485
FL	427
VA	320
MD	316
MA	249

KS	160

Top 15th Percentile of HERS Ratings by State

The following is a breakdown of the number of homes and maximum HERS score for the top 15th percentile of ratings for each state in 2024.

State	Maximum HERS Index for the Top 15th Percentile of Ratings
AL	55
AR	56
AZ	46
CA	8
CO	50
CT	42
DC	27
DE	50
FL	52
GA	51
HI	41
IA	50
ID	55
IL	50
IN	58
KS	49
KY	55
LA	50
MA	43
MD	48
ME	25
MI	55
MN	43
MO	50
MS	59
NC	55
ND	49
NE	55
NH	41
NJ	47
NM	47
NV	45
NY	41

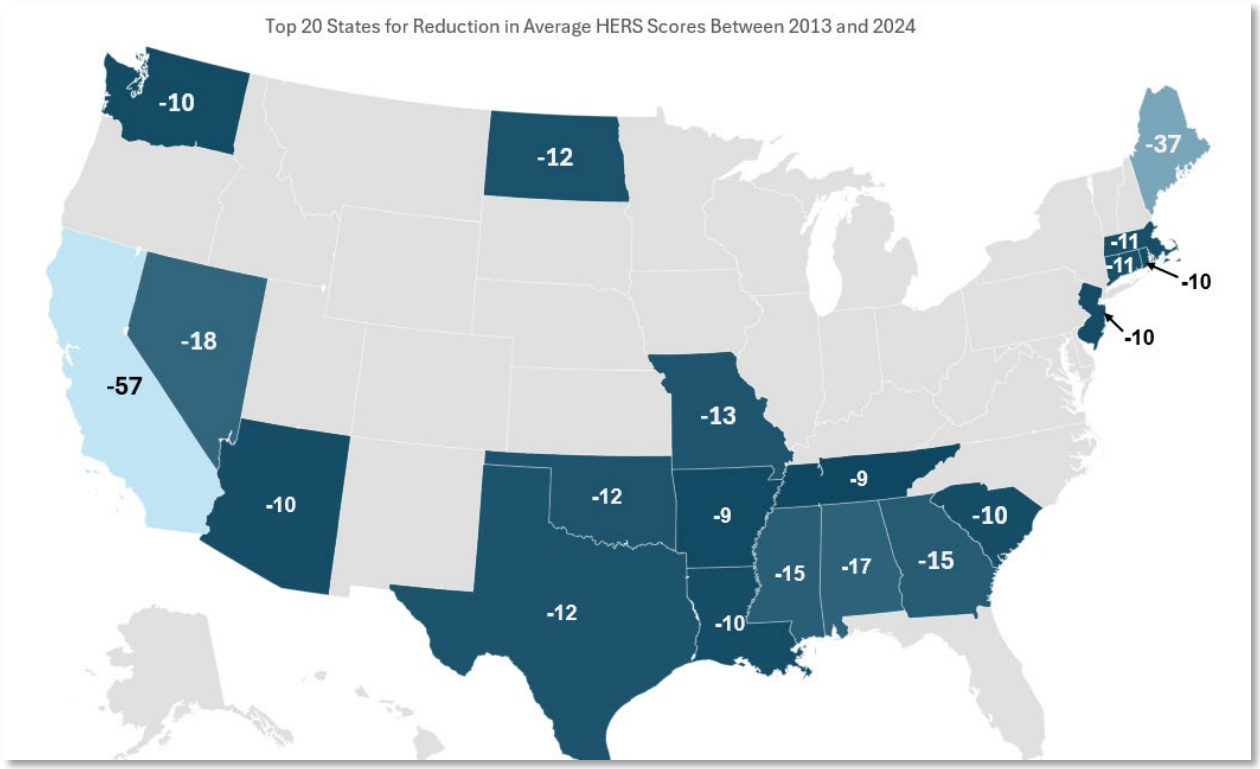
OH	56
OK	48
OR	51
PA	51
PR	47
RI	51
SC	52
SD	46
TN	50
TX	49
UT	51
VA	54
VT	37
WA	50
WI	51
WV	58
WY	52

Top 20 Most Improved States Since 2013

RESNET began capturing HERS Rated homes in its National Buildings Registry in 2013. The map below displays the top 20 states that have had the greatest reduction in average HERS scores from 2013 to 2024.

California, with its solar mandate for new residential construction, had the largest decrease in average HERS Index scores with 57 points. Although there are limited HERS Ratings in Maine, the pine tree state came in second with a 37-point reduction, followed by Nevada and Alabama with an 18- and 17- point reduction respectively.

Eight of these 20 states have energy code efficiency levels of 2009 IECC or less, according to the Pacific Northwest National Laboratory's tracking of state code efficiency levels (https://energycodes.gov/state-portal). Those states are Nevada, Arkansas, Georgia, South Carolina, Alabama, Tennessee, Oklahoma and Arizona. While three states, Mississippi, Missouri and North Dakota, have no statewide energy code. This is a good indication that HERS Ratings are driving energy efficiency despite state energy codes.



HERS$_{H2O}$® Rating Data

HERS$_{H2O}$® is RESNET's new whole-house water efficiency rating that can be used to achieve the WaterSense Label for Homes. The HERS$_{H2O}$ Index works the same as the HERS Index where a lower score means less water usage.

Last year was the third full year of receiving HERS$_{H2O}$ Ratings in the RESNET Registry. After launching HERS$_{H2O}$ and the WaterSense Label for Homes, version 2, in early 2021, the program has seen steady growth through 2024. In fact, the number of HERS$_{H2O}$ Ratings increased by 49 percent from 2023 to 2024.

The following are the HERS$_{H2O}$ numbers for last year:

- Number of homes rated with HERS$_{H2O}$ and receiving the WaterSense Label for Homes: 5,987
- Average Index score of HERS$_{H2O}$ Ratings: 59
- Number of RESNET-accredited HERS$_{H2O}$ Providers: 27
- Number of certified RESNET HERS$_{H2O}$ Raters: 361
- The average HERS$_{H2O}$ Rated home is estimated to save 120,000 gallons of water per year compared to the Reference Home.

To learn more about HERS$_{H2O}$ and the WaterSense Label for Homes, visit: https://www.resnet.us/about/hersh2o/.

Closing Remarks

This is the sixth installment of RESNET's *Trends in HERS Rated Homes* report. RESNET welcomes feedback on data trends you would like to see analyzed for next year's report. Feedback can be sent to RESNET's Program Director, Ryan Meres at ryan@resnet.us.

This report is made possible with support from RESNET's Suppliers Advisory Board (SAB) members. If you are a supplier of goods or services to the homebuilding market, you can join RESNET's Suppliers Advisory Board and receive additional access to RESNET's HERS Rating data, RESNET Conference Sponsorship benefits, and opportunities to get in front of RESNET's vast network of home energy professionals. See below for more information about the SAB.

About RESNET's Suppliers Advisory Board

The purpose of the RESNET SAB is to provide an opportunity for suppliers to better understand RESNET; network with other suppliers, customers, and HERS raters; and provide supplier input to the RESNET Board of Directors. Membership is open to all suppliers of goods and services to the homebuilding market. Visit https://www.resnet.us/about/sab/ for more information and the benefits of becoming a member of the SAB.