

Table HC11.1 Household energy insecurity, 2024

Number of housing units (million)

	Households reporting...							
	Total U.S. ^a	Any household energy insecurity ^b	Reducing or forgoing food or medicine to pay energy costs	Leaving home at unhealthy temperature	Receiving disconnect or delivery stop notice	Unable to use heating equipment ^c	Unable to use air-conditioning equipment ^d	
All homes	132.54	43.56	32.89	17.55	16.19	6.83	8.16	
Census region and division								
Northeast	22.93	6.87	5.12	3.12	2.39	0.94	1.16	
New England	6.20	1.84	1.39	0.86	0.68	0.30	0.34	
Middle Atlantic	16.73	5.04	3.73	2.26	1.71	0.63	0.83	
Midwest	28.49	8.52	6.28	3.15	3.37	1.35	1.52	
East North Central	19.47	5.97	4.43	2.15	2.32	0.88	0.95	
West North Central	9.02	2.55	1.85	1.01	1.05	0.47	0.57	
South	51.49	18.25	14.11	6.73	7.39	3.23	3.81	
South Atlantic	27.38	8.76	6.67	3.27	3.31	1.41	1.69	
East South Central	8.01	3.11	2.34	1.31	1.19	0.78	0.79	
West South Central	16.11	6.38	5.11	2.16	2.89	1.05	1.33	
West	29.63	9.92	7.38	4.54	3.05	1.32	1.67	
Mountain	10.19	3.00	2.23	1.29	0.99	0.44	0.63	
Mountain North	5.13	1.22	0.85	0.54	0.38	0.16	0.23	
Mountain South	5.06	1.78	1.39	0.76	0.60	0.28	0.40	
Pacific	19.44	6.92	5.14	3.24	2.07	0.88	1.04	
Census urban-rural classification^e								
Urban	106.30	35.45	26.81	14.41	13.27	5.22	6.62	
Rural	26.23	8.11	6.08	3.13	2.93	1.61	1.54	
Climate region^f								
Very cold/Cold	42.10	11.90	8.90	4.66	4.31	1.87	2.01	
Mixed-humid	42.02	14.17	10.56	5.92	5.47	2.60	2.79	
Mixed-dry/Hot-dry	16.28	6.75	5.17	3.02	2.31	0.88	1.33	
Hot-humid	25.15	8.96	7.02	3.09	3.68	1.25	1.87	
Marine	6.98	1.78	1.24	0.85	0.42	0.24	0.16	
Housing unit type								
Single-family detached	82.51	22.84	16.94	8.30	8.03	3.68	4.36	
Single-family attached	8.65	2.85	2.14	1.26	1.08	0.55	0.55	
Apartment in a building with 2-4 units	9.69	4.67	3.79	2.16	2.04	0.72	0.85	
Apartment in a building with 5 or more units	25.05	9.78	7.40	4.38	3.61	1.11	1.60	
Mobile home	6.64	3.41	2.63	1.43	1.43	0.78	0.81	
Year of construction								
Before 1950	20.25	6.93	5.05	2.96	2.79	1.14	1.20	
1950 to 1959	12.17	4.47	3.51	1.90	1.88	0.74	0.87	
1960 to 1969	12.73	4.54	3.27	1.82	1.57	0.74	0.91	
1970 to 1979	18.09	6.65	4.99	2.83	2.66	1.19	1.14	
1980 to 1989	16.60	5.87	4.43	2.35	2.04	1.07	1.25	
1990 to 1999	15.89	4.70	3.53	1.80	1.70	0.63	0.90	
2000 to 2009	18.28	5.47	4.20	1.98	1.87	0.70	1.20	
2010 to 2019	12.48	3.38	2.61	1.35	1.20	0.45	0.56	
2020 to 2024	6.06	1.53	1.30	0.55	0.50	0.18	0.14	
Adequacy of insulation								
Well insulated	38.32	9.34	7.39	2.88	3.45	1.07	1.46	
Adequately insulated	67.44	20.29	14.83	7.50	6.98	2.80	3.80	
Poorly insulated	23.33	12.06	9.19	6.04	4.92	2.41	2.50	
Not insulated	3.44	1.86	1.48	1.12	0.85	0.55	0.40	
Type of glass in windows								
Single-pane glass	43.83	19.17	14.96	7.97	7.95	3.28	3.61	
Double-pane glass	86.08	23.74	17.41	9.27	8.05	3.49	4.48	
Triple-pane glass	2.63	0.65	0.52	0.31	0.19	Q	Q	
Number of household members								
One person	43.74	13.32	9.52	6.55	3.88	1.86	2.18	
Two persons	43.87	11.88	8.89	4.80	3.98	1.70	2.21	
Three persons	18.84	7.11	5.59	2.48	2.96	1.08	1.29	
Four persons	14.60	5.84	4.47	1.93	2.62	1.03	1.13	
Five persons	6.67	2.85	2.30	0.96	1.32	0.50	0.60	
Six or more persons	4.83	2.55	2.13	0.83	1.43	0.66	0.75	

Table HC11.1 Household energy insecurity, 2024

Number of housing units (million)

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All homes	132.54	43.56	32.89	17.55	16.19	6.83	8.16	
Annual household income								
Less than \$10,000	6.23	3.97	3.16	1.97	2.13	1.18	1.03	
\$10,000 to \$14,999	5.90	3.44	2.91	1.65	1.43	0.50	0.77	
\$15,000 to \$29,999	13.42	6.90	5.41	2.99	2.55	1.31	1.28	
\$30,000 to \$59,999	30.96	12.83	10.06	4.94	4.69	1.83	2.37	
\$60,000 to \$99,999	29.41	9.44	6.96	3.41	3.27	1.28	1.57	
\$100,000 to \$199,999	32.30	5.89	3.84	2.08	1.83	0.56	0.94	
\$200,000 or more	14.32	1.07	0.55	0.50	0.28	0.17	0.21	
Payment method for energy bills								
All paid by household	121.70	39.56	29.90	15.38	14.82	5.98	7.34	
Some paid by household, some included in rent or condo fee	6.64	2.88	2.32	1.54	1.08	0.60	0.50	
All included in rent or condo fee	4.02	1.02	0.59	0.55	0.22	0.19	0.26	
Some other method	0.18	Q	Q	Q	Q	Q	Q	
Householder 60 or older								
Yes	56.98	13.67	9.79	6.30	3.20	1.78	2.41	
No	75.55	29.88	23.10	11.25	13.00	5.05	5.75	
Children under 18 in household								
Yes	35.34	14.96	11.89	4.91	7.25	2.95	3.20	
No	97.20	28.60	20.99	12.64	8.95	3.88	4.96	
Ethnicity of householder^e								
Hispanic or Latino	16.32	8.16	6.64	3.15	3.06	1.17	1.59	
Not Hispanic or Latino	116.22	35.39	26.25	14.40	13.14	5.67	6.58	
Race of householder^{e,h}								
White alone	105.53	31.03	23.29	12.35	10.57	4.37	5.47	
Hispanic or Latino	13.73	6.80	5.55	2.58	2.53	0.96	1.29	
Not Hispanic or Latino	91.80	24.23	17.74	9.77	8.04	3.42	4.19	
Black or African American alone	13.53	7.46	5.81	2.79	3.89	1.59	1.75	
Hispanic or Latino	0.83	0.43	0.33	0.17	0.19	0.10	0.13	
Not Hispanic or Latino	12.70	7.03	5.48	2.62	3.70	1.49	1.62	
Asian alone	7.38	2.16	1.44	1.14	0.53	0.20	0.38	
American Indian or Alaska Native alone	1.59	0.90	0.73	0.47	0.38	0.24	0.19	
Native Hawaiian or Other Pacific Islander alone	0.62	0.34	0.25	0.15	0.16	Q	Q	
More than one race	3.90	1.66	1.38	0.65	0.66	0.34	0.31	
Ownership of housing unit								
Owned	89.54	23.01	16.75	8.89	7.18	3.76	4.63	
Rented ⁱ	43.00	20.55	16.13	8.66	9.01	3.07	3.53	

Data source: U.S. Energy Information Administration, Office of Energy Demand and Integrated Statistics, Form EIA-457A of the 2024 Residential Energy Consumption Survey (RECS)

Note: Because of rounding, data may not sum to totals. See RECS Terminology for the definitions of terms used in these tables.

^a Total U.S. includes all primary occupied housing units in the 50 states and the District of Columbia. Vacant housing units, seasonal units, second homes, military houses, and group quarters are excluded.

^b Household energy insecurity as defined in this table includes only those issues collected as part of the RECS questionnaire. Other factors, such as energy costs as a percentage of household income, could be considered as household energy insecurity, but they are not included here. Respondents may report more than one energy insecurity issue.

^c Includes inability to use main heating equipment at any time during the previous 12 months because equipment was broken and household could not have it repaired or because of an electricity, natural gas, or bulk fuel disruption due to lack of payment.

^d Includes inability to use air-conditioning equipment at any time during the previous 12 months because equipment was broken and household could not have it repaired or because of an electricity disruption due to lack of payment.

^e Census urban-rural classification is based on categories defined by the U.S. Census Bureau for the 2020 census. Urban areas are densely settled cores of blocks with at least 2,000 housing units or a population of at least 5,000. All other areas are rural.

^f The Building America program, sponsored by the U.S. Department of Energy, created these climate regions. We combined climate regions for this publication. The Subarctic region is included with data for Very cold/Cold.

^g These characteristics refer to the householder who completed the RECS questionnaire.

^h Householders could select more than one racial category to describe themselves. These householders are only included as More than one race.

ⁱ Rented includes households that occupy their primary housing unit without paying rent.

Q=Data withheld because either the relative standard error (RSE) was greater than 50% or fewer than 10 households were in the reporting sample.

Relative standard errors (RSEs) for Table HC11.1 Household energy insecurity, 2024

RSEs for number of housing units

	Households reporting...						
	Total U.S. ^a	Any household energy insecurity ^b	Reducing or forgoing food or medicine to pay energy costs	Leaving home at unhealthy temperature	Receiving disconnect or delivery stop notice	Unable to use heating equipment ^c	Unable to use air-conditioning equipment ^d
All homes	P	1.35	1.90	2.28	2.77	4.88	3.97
Census region and division							
Northeast	P	2.68	3.46	4.08	4.89	9.40	7.52
New England	P	3.84	5.16	5.96	8.91	13.15	15.35
Middle Atlantic	P	3.45	4.65	5.23	6.47	12.13	9.98
Midwest	P	3.71	4.17	6.00	5.75	11.24	9.06
East North Central	P	4.33	4.69	7.65	7.13	13.47	11.48
West North Central	P	5.77	7.48	9.69	9.42	16.43	15.10
South	P	2.03	2.57	4.00	3.91	6.98	5.79
South Atlantic	P	2.87	4.28	5.72	7.02	9.50	9.05
East South Central	P	3.72	4.47	5.33	8.27	9.44	9.91
West South Central	P	3.46	4.12	7.81	5.70	11.07	8.09
West	P	3.08	3.96	5.56	6.95	10.68	9.23
Mountain	P	3.53	4.89	6.83	7.53	13.16	10.86
Mountain North	P	7.36	9.63	13.85	15.09	23.91	19.78
Mountain South	P	4.40	5.53	8.43	9.79	14.37	13.25
Pacific	P	4.02	5.00	7.04	9.29	13.08	13.12
Census urban-rural classification^e							
Urban	0.40	1.56	2.31	2.39	2.99	5.76	4.69
Rural	1.61	3.02	3.22	5.57	5.29	7.56	8.36
Climate region^f							
Very cold/Cold	0.71	2.78	3.26	4.60	4.64	7.53	7.35
Mixed-humid	0.83	2.33	2.90	3.67	3.87	6.98	5.91
Mixed-dry/Hot-dry	1.23	4.15	4.78	7.22	7.91	13.53	10.79
Hot-humid	0.72	3.53	4.19	7.46	5.98	10.96	8.18
Marine	2.91	8.20	10.80	11.34	19.25	21.32	27.48
Housing unit type							
Single-family detached	P	1.62	2.13	3.43	3.71	6.77	5.78
Single-family attached	P	3.64	5.00	7.26	8.51	10.17	12.95
Apartment in a building with 2-4 units	P	3.85	4.96	7.03	7.04	13.78	11.51
Apartment in a building with 5 or more units	P	3.34	4.89	4.16	8.01	11.56	9.52
Mobile home	P	4.46	5.33	9.31	9.05	11.34	12.69
Year of construction							
Before 1950	P	3.39	4.66	5.62	6.20	9.59	11.51
1950 to 1959	P	4.44	4.85	7.52	7.39	12.05	13.51
1960 to 1969	P	3.66	4.77	8.13	8.16	13.37	11.30
1970 to 1979	P	3.32	4.25	6.35	6.91	9.29	8.90
1980 to 1989	P	3.88	4.80	7.30	6.89	9.76	11.04
1990 to 1999	P	4.22	5.58	8.52	8.24	12.94	10.22
2000 to 2009	P	4.17	4.46	7.11	9.60	12.14	9.60
2010 to 2019	2.05	6.21	7.45	10.48	11.23	20.42	15.16
2020 to 2024	4.23	8.94	8.77	16.41	16.48	27.64	28.82
Adequacy of insulation							
Well insulated	1.41	2.88	3.43	6.78	5.26	9.98	9.14
Adequately insulated	1.07	2.80	3.46	4.05	4.54	6.64	5.74
Poorly insulated	2.26	2.99	3.71	4.93	5.30	8.22	7.07
Not insulated	6.25	8.67	9.56	10.90	13.21	16.28	18.33
Type of glass in windows							
Single-pane glass	1.39	2.50	3.00	3.77	4.27	5.90	5.88
Double-pane glass	0.66	2.03	2.83	3.15	3.73	6.87	5.65
Triple-pane glass	6.19	12.82	15.13	19.27	24.69	Q	Q
Number of household members							
One person	1.43	2.86	3.65	3.73	5.54	10.72	7.26
Two persons	1.14	3.13	4.26	5.05	5.63	7.92	7.01
Three persons	2.56	4.10	4.85	6.69	7.15	9.67	9.85
Four persons	2.47	4.73	5.34	7.01	7.84	8.84	9.96
Five persons	3.73	5.92	6.65	10.89	7.69	15.54	13.78
Six or more persons	5.36	7.85	8.18	12.95	9.92	15.47	13.69

Relative standard errors (RSEs) for Table HC11.1 Household energy insecurity, 2024

RSEs for number of housing units

	Households reporting...						
	Total U.S. ^a	Any household energy insecurity ^b	Reducing or forgoing food or medicine to pay energy costs	Leaving home at unhealthy temperature	Receiving disconnect or delivery stop notice	Unable to use heating equipment ^c	Unable to use air-conditioning equipment ^d
All homes	P	1.35	1.90	2.28	2.77	4.88	3.97
Annual household income							
Less than \$10,000	4.64	5.45	6.62	8.66	7.54	11.93	12.75
\$10,000 to \$14,999	3.57	6.01	6.53	9.52	9.71	16.24	11.89
\$15,000 to \$29,999	2.86	4.27	5.01	5.70	6.97	9.15	9.65
\$30,000 to \$59,999	1.60	3.20	3.50	5.68	4.74	7.64	7.22
\$60,000 to \$99,999	1.92	3.65	4.23	6.28	5.97	8.86	9.32
\$100,000 to \$199,999	1.42	4.26	5.38	6.23	7.74	13.77	10.25
\$200,000 or more	2.52	10.63	15.32	16.92	21.08	26.11	20.15
Payment method for energy bills							
All paid by household	0.27	1.44	2.04	2.41	2.77	4.64	4.16
Some paid by household, some included in rent or condo fee	3.59	6.41	7.78	9.10	11.16	17.49	15.25
All included in rent or condo fee	4.96	11.92	13.84	16.08	22.33	27.85	19.76
Some other method	26.96	Q	Q	Q	Q	Q	Q
Householder 60 or older							
Yes	1.13	2.41	3.14	3.87	4.53	8.28	6.30
No	0.85	1.74	2.33	3.44	3.32	5.69	4.58
Children under 18 in household							
Yes	1.82	2.91	3.28	4.97	4.15	6.70	6.16
No	0.66	1.78	2.36	2.82	3.34	6.40	4.86
Ethnicity of householder^e							
Hispanic or Latino	2.58	4.41	4.85	6.33	7.10	10.98	10.51
Not Hispanic or Latino	0.36	1.53	2.00	2.33	2.74	5.21	4.15
Race of householder^{e,h}							
White alone	0.53	1.81	2.35	2.94	3.64	5.56	4.88
Hispanic or Latino	2.88	4.78	5.31	6.94	7.24	11.99	11.06
Not Hispanic or Latino	0.64	1.93	2.52	3.13	3.82	6.15	4.94
Black or African American alone	2.90	3.77	4.60	6.64	5.25	8.55	7.98
Hispanic or Latino	14.59	18.21	20.97	32.37	26.77	35.37	35.74
Not Hispanic or Latino	3.06	3.91	4.84	6.87	5.16	8.87	8.09
Asian alone	3.50	6.49	8.92	10.65	16.59	28.51	20.76
American Indian or Alaska Native alone	10.57	14.18	14.60	17.66	19.48	24.79	26.08
Native Hawaiian or Other Pacific Islander alone	13.61	16.54	19.44	26.42	28.13	Q	Q
More than one race	6.31	8.18	9.11	13.85	11.39	16.40	17.62
Ownership of housing unit							
Owned	0.41	1.95	2.50	3.83	4.14	5.73	5.32
Rented ⁱ	0.85	2.49	3.16	3.65	4.13	7.10	6.51

Data source: U.S. Energy Information Administration, Office of Energy Demand and Integrated Statistics, Form EIA-457A of the 2024 Residential Energy Consumption Survey (RECS)

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ⁱ Rented includes households that occupy their primary housing unit without paying rent.

P=Estimate is equal to the control total that is used in poststratification and is based on the U.S. Census Bureau's 2024 American Community Survey one-year estimates.

Q=Data withheld because either the relative standard error (RSE) was greater than 50% or fewer than 10 households were in the reporting sample.