

Data release date: June 2023
Revised data release date: March 2024

Table CE5.6 Detailed household natural gas and propane end-use expenditures—totals, 2020

	Total site energy expenditures (billion dollars)									
	Natural gas					Propane				
	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c	Pool heaters	Hot tub heaters	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c
All homes	30.45	13.24	0.45	1.36	0.56	0.07	5.36	1.60	0.05	0.29
Census region and division										
Northeast	8.00	3.36	0.10	0.48	0.09	0.01	1.25	0.38	0.02	0.10
New England	1.81	0.71	0.02	0.07	Q	*	0.43	0.16	*	0.04
Middle Atlantic	6.19	2.66	0.08	0.41	0.09	0.01	0.82	0.22	0.01	0.06
Midwest	10.18	2.44	0.09	0.19	0.05	0.01	2.22	0.30	0.01	0.04
East North Central	7.42	1.72	0.07	0.15	0.05	*	1.52	0.21	0.01	0.03
West North Central	2.76	0.72	0.02	0.04	Q	*	0.70	0.09	*	0.01
South	6.89	3.15	0.08	0.32	0.21	0.02	1.19	0.51	0.01	0.10
South Atlantic	3.66	1.50	0.03	0.17	0.12	0.01	0.67	0.26	*	0.06
East South Central	1.21	0.41	0.01	0.03	Q	*	0.29	0.07	Q	0.02
West South Central	2.02	1.24	0.04	0.12	0.07	0.01	0.23	0.17	*	0.03
West	5.37	4.29	0.18	0.36	0.20	0.03	0.69	0.41	0.01	0.05
Mountain	2.03	1.00	0.03	0.07	0.07	0.01	0.32	0.14	*	0.01
Mountain North	1.38	0.51	0.01	0.02	Q	Q	0.21	0.04	Q	*
Mountain South	0.66	0.49	0.02	0.05	0.05	0.01	0.11	0.10	Q	0.01
Pacific	3.34	3.29	0.15	0.29	0.13	0.02	0.37	0.27	0.01	0.04
Census urban/rural classification^d										
Urban	27.60	12.39	0.41	1.27	0.48	0.06	1.03	0.53	0.02	0.09
Urbanized area	24.66	11.43	0.39	1.19	0.47	0.06	0.77	0.39	0.01	0.06
Urban cluster	2.94	0.96	0.02	0.08	Q	*	0.26	0.13	0.01	0.02
Rural	2.85	0.85	0.04	0.09	0.08	0.01	4.33	1.07	0.04	0.21
Climate region^e										

Table CE5.6 Detailed household natural gas and propane end-use expenditures—totals, 2020

Total site energy expenditures (billion dollars)										
	Natural gas						Propane			
	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c	Pool heaters	Hot tub heaters	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c
All homes	30.45	13.24	0.45	1.36	0.56	0.07	5.36	1.60	0.05	0.29
Very cold and Cold	14.98	4.16	0.15	0.34	0.12	0.01	3.36	0.67	0.03	0.13
Mixed-humid	10.23	4.09	0.09	0.55	0.14	0.02	1.42	0.43	0.01	0.08
Mixed-dry and Hot-dry	2.37	2.57	0.13	0.24	0.16	0.02	0.27	0.19	0.01	0.02
Hot-humid	1.48	1.29	0.04	0.13	0.12	0.01	0.21	0.23	0.01	0.04
Marine	1.39	1.12	0.04	0.09	Q	*	0.10	0.08	Q	0.01
Housing unit type										
Single-family detached	24.00	8.66	0.37	0.75	0.55	0.06	4.74	1.31	0.05	0.24
Single-family attached	2.09	0.94	0.03	0.09	Q	*	0.06	0.05	*	0.01
Apartments in buildings with 2–4 units	1.95	1.20	0.02	0.13	N	Q	0.02	0.05	Q	*
Apartments in buildings with 5 or more units	1.84	2.20	0.02	0.35	N	0.01	0.04	0.06	N	0.01
Mobile homes	0.57	0.23	0.01	0.04	Q	Q	0.51	0.13	*	0.03
Ownership of housing unit										
Owned	24.92	9.19	0.37	0.88	0.54	0.06	4.89	1.36	0.05	0.26
Single-family	23.49	8.37	0.36	0.73	0.54	0.06	4.46	1.24	0.05	0.23
Apartments	0.98	0.62	0.01	0.12	N	Q	Q	Q	N	Q
Mobile homes	0.45	0.19	0.01	0.03	Q	Q	0.42	0.12	*	0.03
Rented ^f	5.53	4.05	0.08	0.48	Q	0.01	0.47	0.23	*	0.03
Single-family	2.61	1.23	0.05	0.11	Q	Q	0.34	0.12	*	0.02
Apartments	2.81	2.78	0.03	0.37	N	0.01	0.05	0.11	Q	0.01
Mobile homes	0.11	0.04	Q	0.01	N	N	0.09	Q	Q	*
Year of construction										
Before 1950	8.03	2.73	0.10	0.39	0.06	*	1.09	0.19	0.01	0.04

Table CE5.6 Detailed household natural gas and propane end-use expenditures—totals, 2020

Total site energy expenditures (billion dollars)										
	Natural gas						Propane			
	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c	Pool heaters	Hot tub heaters	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c
All homes	30.45	13.24	0.45	1.36	0.56	0.07	5.36	1.60	0.05	0.29
1950 to 1959	4.28	1.59	0.06	0.16	0.03	0.01	0.43	0.08	*	0.02
1960 to 1969	3.65	1.57	0.05	0.17	0.05	Q	0.43	0.11	*	0.02
1970 to 1979	3.57	1.69	0.06	0.15	0.04	0.01	0.90	0.19	0.01	0.03
1980 to 1989	2.76	1.40	0.05	0.11	0.07	0.01	0.65	0.19	0.01	0.03
1990 to 1999	3.58	1.72	0.06	0.14	0.13	0.02	0.94	0.34	0.01	0.05
2000 to 2009	3.07	1.74	0.05	0.14	0.11	0.01	0.62	0.34	0.01	0.05
2010 to 2015	0.81	0.46	0.02	0.06	0.04	*	0.15	0.09	*	0.01
2016 to 2020	0.70	0.34	0.01	0.04	0.05	0.01	0.13	0.07	Q	0.02
Total square footage^e										
Less than 1,000	3.45	2.98	0.05	0.38	N	0.01	0.34	0.16	*	0.03
1,000 to 1,499	5.46	2.74	0.09	0.32	0.02	0.01	0.81	0.24	0.01	0.04
1,500 to 1,999	5.94	2.43	0.10	0.23	0.05	0.01	0.84	0.30	0.01	0.06
2,000 to 2,499	4.72	1.64	0.07	0.15	0.07	0.01	1.01	0.25	0.01	0.05
2,500 to 2,999	3.78	1.27	0.05	0.10	0.12	0.01	0.66	0.18	0.01	0.03
3,000 or more	7.10	2.17	0.09	0.18	0.31	0.03	1.69	0.47	0.02	0.08
Number of household members										
1 member	6.84	2.55	0.05	0.30	0.02	0.01	1.27	0.27	0.01	0.05
2 members	11.56	4.37	0.15	0.50	0.21	0.03	2.40	0.66	0.02	0.13
3 members	4.87	2.38	0.08	0.23	0.16	0.02	0.76	0.25	0.01	0.04
4 members	4.32	2.20	0.09	0.20	0.12	0.01	0.54	0.23	0.01	0.05
5 members	1.63	0.99	0.04	0.08	0.04	*	0.21	0.11	*	0.02
6 or more members	1.23	0.74	0.03	0.05	0.02	Q	0.19	0.07	Q	0.01
2020 annual household income										
Less than \$5,000	0.67	0.40	0.01	0.04	N	Q	0.12	0.05	Q	*

Table CE5.6 Detailed household natural gas and propane end-use expenditures—totals, 2020

**Total site energy expenditures
(billion dollars)**

	Natural gas					Propane				
	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c	Pool heaters	Hot tub heaters	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c
All homes	30.45	13.24	0.45	1.36	0.56	0.07	5.36	1.60	0.05	0.29
\$5,000 to \$9,999	0.58	0.32	*	0.05	N	Q	0.09	0.02	Q	*
\$10,000 to \$19,999	1.76	0.89	0.01	0.07	Q	Q	0.46	0.10	Q	0.02
\$20,000 to \$39,999	4.75	2.08	0.06	0.19	0.03	0.01	1.01	0.22	0.01	0.05
\$40,000 to \$59,999	4.47	1.79	0.05	0.19	0.03	*	0.78	0.22	0.01	0.04
\$60,000 to \$99,999	7.01	3.05	0.11	0.27	0.06	0.01	1.27	0.41	0.01	0.06
\$100,000 to \$149,999	4.87	2.10	0.09	0.23	0.10	0.01	0.81	0.28	0.01	0.05
\$150,000 or more	6.33	2.59	0.11	0.32	0.34	0.03	0.81	0.30	0.01	0.06
Payment method for energy bills										
All paid by household	28.69	11.78	0.43	1.09	0.55	0.07	5.24	1.50	0.05	0.28
Some paid by household, some included in rent or condo fee	1.11	0.97	0.01	0.22	Q	Q	0.10	0.07	Q	*
All included in rent or condo fee	0.59	0.47	Q	0.04	N	Q	Q	Q	Q	0.01
Some other method	Q	0.02	Q	*	N	N	N	Q	N	Q

Table CE5.6 Detailed household natural gas and propane end-use expenditures—totals, 2020

	Total site energy expenditures (billion dollars)									
	Natural gas					Propane				
	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c	Pool heaters	Hot tub heaters	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c
All homes	30.45	13.24	0.45	1.36	0.56	0.07	5.36	1.60	0.05	0.29

Data source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-457A, D, E, F, G of the *2020 Residential Energy Consumption Survey*

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

^a Includes main (primary) and secondary space heating.

^b *Clothes dryers* excludes electricity used for controls and spinning the drum.

^c *Cooking* includes ranges (units with both a cooktop and an oven), separate cooktops, and separate ovens. Microwaves, small kitchen appliances, and outdoor cooking are excluded.

^d Housing units are classified using criteria created by the U.S. Census Bureau based on 2010 Census data. Urbanized areas are densely settled groupings of blocks or tracts with 50,000 or more people. Urban clusters have at least 2,500 but less than 50,000 people. All other areas are rural.

^e The Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE), created these climate regions. We combined climate regions for this publication. The Subarctic region is included with data for *Very-cold and Cold*.

^f *Rented* includes households that occupy their primary housing units without paying rent.

^g *Total square footage* includes all basements, finished or conditioned (heated or cooled) areas of attics, and conditioned garage space that is attached to the home. Unconditioned and unfinished areas in attics and attached garages are excluded. The square footage of the home is based on respondent reports. Previous RECS cycles calculated square footage based on interviewer measurements. For households that did not report an exact square footage estimate, the square footage of the home was imputed based on a reported square footage range and/or characteristics of the home. See *2020 RECS Square Footage Methodology* for full details about data collection and processing.

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

N = No households in reporting sample.

* = Estimate is less than 0.005 and rounds to zero.

Data release date: June 2023

Revised data release date: March 2024

Relative standard errors (RSEs) for Table CE5.6 Detailed household natural gas and propane end-use expenditures—totals, 2020

	RSEs for total site energy expenditures									
	Natural gas					Propane				
	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c	Pool heaters	Hot tub heaters	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c
All homes	0.95	1.10	2.90	2.02	9.80	10.44	4.34	5.05	9.66	3.91
Census region and division										
Northeast	1.84	3.09	5.56	5.03	15.76	28.94	9.66	8.73	16.55	7.03
New England	4.01	4.28	11.39	6.29	14.31	35.47	11.52	10.48	22.40	8.96
Middle Atlantic	2.30	3.88	6.59	6.00	15.99	36.65	12.40	11.79	21.16	10.39
Midwest	1.71	2.06	4.85	3.94	27.19	27.58	7.12	9.35	15.51	10.03
East North Central	2.04	2.50	5.46	4.66	28.18	39.24	8.94	13.05	18.40	14.23
West North Central	2.49	3.06	9.68	6.64	15.42	38.49	8.38	9.93	25.75	16.41
South	2.12	2.36	7.87	4.09	17.80	14.51	7.43	8.94	25.83	7.58
South Atlantic	3.06	3.54	13.05	7.01	27.00	24.28	10.20	13.98	38.82	10.64
East South Central	4.65	5.55	20.94	11.70	46.21	41.19	14.08	18.83	15.45	18.15
West South Central	3.60	3.59	9.35	4.29	18.84	17.63	13.50	13.71	38.00	11.86
West	1.87	1.71	4.74	2.28	17.60	17.79	11.39	10.26	18.24	11.77
Mountain	2.16	2.04	9.23	4.58	18.26	18.00	14.61	14.10	37.04	16.51
Mountain North	2.42	2.50	17.66	7.30	41.37	47.63	19.87	21.82	55.88	21.81
Mountain South	4.11	3.48	9.29	6.66	20.56	17.76	25.01	18.29	45.56	21.68
Pacific	2.91	2.17	5.21	2.56	21.52	22.58	17.41	13.53	21.67	13.72
Census urban/rural classification^d										
Urban	1.04	1.20	2.95	2.15	10.59	10.67	10.53	8.59	18.71	8.84
Urbanized area	1.11	1.34	3.02	2.33	10.73	11.05	12.37	10.43	24.55	10.34
Urban cluster	4.73	4.91	10.43	7.78	51.68	37.93	17.18	18.73	28.65	14.72
Rural	3.86	4.75	9.65	7.34	25.67	25.92	4.51	5.92	11.24	4.57
Climate region^e										

Relative standard errors (RSEs) for Table CE5.6 Detailed household natural gas and propane end-use expenditures—totals, 2020

	RSEs for total site energy expenditures									
	Natural gas					Propane				
	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c	Pool heaters	Hot tub heaters	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c
All homes	0.95	1.10	2.90	2.02	9.80	10.44	4.34	5.05	9.66	3.91
Very cold and Cold	1.47	1.54	3.81	2.90	17.55	21.19	5.51	5.83	13.10	5.85
Mixed-humid	2.12	2.86	7.65	4.93	20.78	22.96	9.47	9.14	22.85	8.81
Mixed-dry and Hot-dry	3.40	2.05	6.23	3.71	18.68	20.02	19.25	16.30	29.13	20.53
Hot-humid	4.40	4.31	10.70	6.63	21.48	18.44	15.87	11.44	28.78	11.70
Marine	4.81	4.57	12.32	7.37	46.61	36.15	28.03	21.99	46.03	23.68
Housing unit type										
Single-family detached	0.97	1.20	3.09	2.07	10.06	10.26	4.91	5.47	10.29	4.22
Single-family attached	2.78	3.62	8.40	5.12	58.79	39.18	26.87	25.86	42.05	32.22
Apartments in buildings with 2–4 units	4.58	4.23	16.40	7.38	0.00	59.59	34.39	26.25	64.35	40.94
Apartments in buildings with 5 or more units	4.97	4.34	18.14	7.53	0.00	44.01	21.85	23.61	0.00	37.12
Mobile homes	7.17	7.21	24.87	7.63	20.92	58.22	12.19	14.18	33.59	10.17
Ownership of housing unit										
Owned	1.03	1.32	3.11	2.53	9.76	9.82	4.51	4.75	9.54	4.11
Single-family	1.04	1.22	3.03	2.13	9.79	9.91	5.08	5.03	9.72	4.20
Apartments	9.17	9.46	18.39	13.30	0.00	79.83	54.27	64.04	0.00	58.44
Mobile homes	9.10	8.84	29.95	9.05	20.92	58.22	13.66	14.34	35.36	10.99
Rented ^f	3.10	2.63	9.85	5.84	56.53	33.00	12.17	13.69	31.04	13.26
Single-family	4.44	4.14	12.43	6.77	56.53	47.50	15.93	22.25	36.05	15.73
Apartments	4.29	3.55	16.75	7.43	0.00	40.94	19.28	17.43	64.35	30.23
Mobile homes	19.37	23.25	41.58	20.73	0.00	0.00	27.88	67.77	18.74	30.68
Year of construction										
Before 1950	2.14	3.36	7.63	4.63	31.62	47.85	10.90	12.94	26.89	12.46

Relative standard errors (RSEs) for Table CE5.6 Detailed household natural gas and propane end-use expenditures—totals, 2020

	RSEs for total site energy expenditures									
	Natural gas					Propane				
	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c	Pool heaters	Hot tub heaters	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c
All homes	0.95	1.10	2.90	2.02	9.80	10.44	4.34	5.05	9.66	3.91
1950 to 1959	2.70	2.90	6.99	7.12	40.49	44.12	15.88	17.03	42.58	15.43
1960 to 1969	3.54	3.83	9.82	6.53	29.16	52.56	17.26	21.18	40.19	17.46
1970 to 1979	2.90	2.92	8.79	7.02	31.56	26.80	9.88	13.34	22.31	9.89
1980 to 1989	3.27	3.84	8.61	6.70	27.36	29.92	9.52	14.07	30.52	12.22
1990 to 1999	2.86	3.33	9.63	7.37	20.70	19.34	10.69	9.81	21.51	10.06
2000 to 2009	2.77	2.91	7.92	5.42	18.05	18.68	10.19	10.96	20.80	9.04
2010 to 2015	5.61	5.91	13.33	10.35	40.48	29.36	15.10	17.18	47.05	16.00
2016 to 2020	7.59	8.26	15.43	8.09	33.53	33.31	19.26	18.13	43.19	18.15
Total square footage^g										
Less than 1,000	3.44	3.46	13.21	6.25	0.00	49.89	14.62	15.24	37.56	12.14
1,000 to 1,499	3.04	3.73	8.12	5.86	39.25	32.24	8.55	12.76	29.44	9.86
1,500 to 1,999	2.35	2.84	7.67	4.13	36.48	25.59	8.72	10.41	23.78	9.90
2,000 to 2,499	3.20	3.87	5.69	5.00	27.33	24.03	10.31	12.94	30.66	11.60
2,500 to 2,999	3.89	4.07	8.19	6.13	22.01	24.43	12.57	14.84	18.97	10.36
3,000 or more	2.90	3.44	6.62	3.91	11.06	13.99	10.05	8.12	14.72	7.87
Number of household members										
1 member	2.82	3.20	7.21	7.03	36.85	29.82	9.48	10.93	25.01	11.03
2 members	1.86	2.25	5.16	4.84	16.84	16.61	6.11	6.38	12.57	6.28
3 members	3.40	4.47	6.27	5.51	20.08	21.51	14.02	13.56	29.24	11.67
4 members	3.31	3.61	7.54	5.29	21.20	24.17	12.36	14.02	21.40	11.68
5 members	5.89	4.93	11.75	10.70	34.68	38.91	22.32	22.15	41.22	18.56
6 or more members	7.68	7.23	14.16	10.10	38.90	44.52	23.29	24.86	57.78	19.81
2020 annual household income										
Less than \$5,000	10.44	8.59	25.27	15.76	0.00	14.69	31.04	27.12	60.57	24.76

Relative standard errors (RSEs) for Table CE5.6 Detailed household natural gas and propane end-use expenditures—totals, 2020

	RSEs for total site energy expenditures									
	Natural gas					Propane				
	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c	Pool heaters	Hot tub heaters	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c
All homes	0.95	1.10	2.90	2.02	9.80	10.44	4.34	5.05	9.66	3.91
\$5,000 to \$9,999	11.01	12.99	25.06	22.66	0.00	47.19	22.83	28.85	75.72	31.53
\$10,000 to \$19,999	6.39	5.48	14.58	7.21	16.58	50.56	15.20	18.91	47.93	14.99
\$20,000 to \$39,999	3.37	4.14	8.82	6.79	40.73	41.31	9.57	12.63	34.05	10.80
\$40,000 to \$59,999	3.11	3.38	8.31	6.57	37.62	38.66	10.34	11.17	29.82	12.84
\$60,000 to \$99,999	2.68	2.98	6.95	5.13	29.10	27.77	8.66	9.31	22.19	7.64
\$100,000 to \$149,999	2.96	4.15	8.33	5.91	21.56	22.17	11.13	13.42	19.76	11.13
\$150,000 or more	2.93	3.33	6.49	5.72	12.50	12.22	12.59	10.81	19.18	8.79
Payment method for energy bills										
All paid by household	0.94	1.07	3.07	2.10	10.00	10.35	4.39	5.00	10.06	3.81
Some paid by household, some included in rent or condo fee	7.72	9.18	31.54	10.09	72.71	67.16	34.83	21.73	59.00	33.51
All included in rent or condo fee	10.01	12.29	59.61	20.98	0.00	58.20	51.02	51.82	88.08	42.92
Some other method	53.00	35.89	47.35	39.76	0.00	0.00	0.00	68.39	0.00	68.98

Relative standard errors (RSEs) for Table CE5.6 Detailed household natural gas and propane end-use expenditures—totals, 2020

	RSEs for total site energy expenditures									
	Natural gas					Propane				
	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c	Pool heaters	Hot tub heaters	Space heating ^a	Water heating	Clothes dryers ^b	Cooking ^c
All homes	0.95	1.10	2.90	2.02	9.80	10.44	4.34	5.05	9.66	3.91

Data source: U.S. Energy Information Administration, Office of Energy Consumption and Efficiency Statistics, Forms EIA-457A, D, E, F, G of the *2020 Residential Energy Consumption Survey*

Notes: See RECS Terminology for definition of terms used in these tables.

^a Includes main (primary) and secondary space heating.

^b *Clothes dryers* excludes electricity used for controls and spinning the drum.

^c *Cooking* includes ranges (units with both a cooktop and an oven), separate cooktops, and separate ovens. Microwaves, small kitchen appliances, and outdoor cooking are excluded.

^d Housing units are classified using criteria created by the U.S. Census Bureau based on 2010 Census data. Urbanized areas are densely settled groupings of blocks or tracts with 50,000 or more people. Urban clusters have at least 2,500 but less than 50,000 people. All other areas are rural.

^e The Building America program, sponsored by the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE), created these climate regions. We combined climate regions for this publication. The Subarctic region is included with data for *Very-cold and Cold*.

^f *Rented* includes households that occupy their primary housing units without paying rent.

^g *Total square footage* includes all basements, finished or conditioned (heated or cooled) areas of attics, and conditioned garage space that is attached to the home. Unconditioned and unfinished areas in attics and attached garages are excluded. The square footage of the home is based on respondent reports. Previous RECS cycles calculated square footage based on interviewer measurements. For households that did not report an exact square footage estimate, the square footage of the home was imputed based on a reported square footage range and/or characteristics of the home. See *2020 RECS Square Footage Methodology* for full details about data collection and processing.